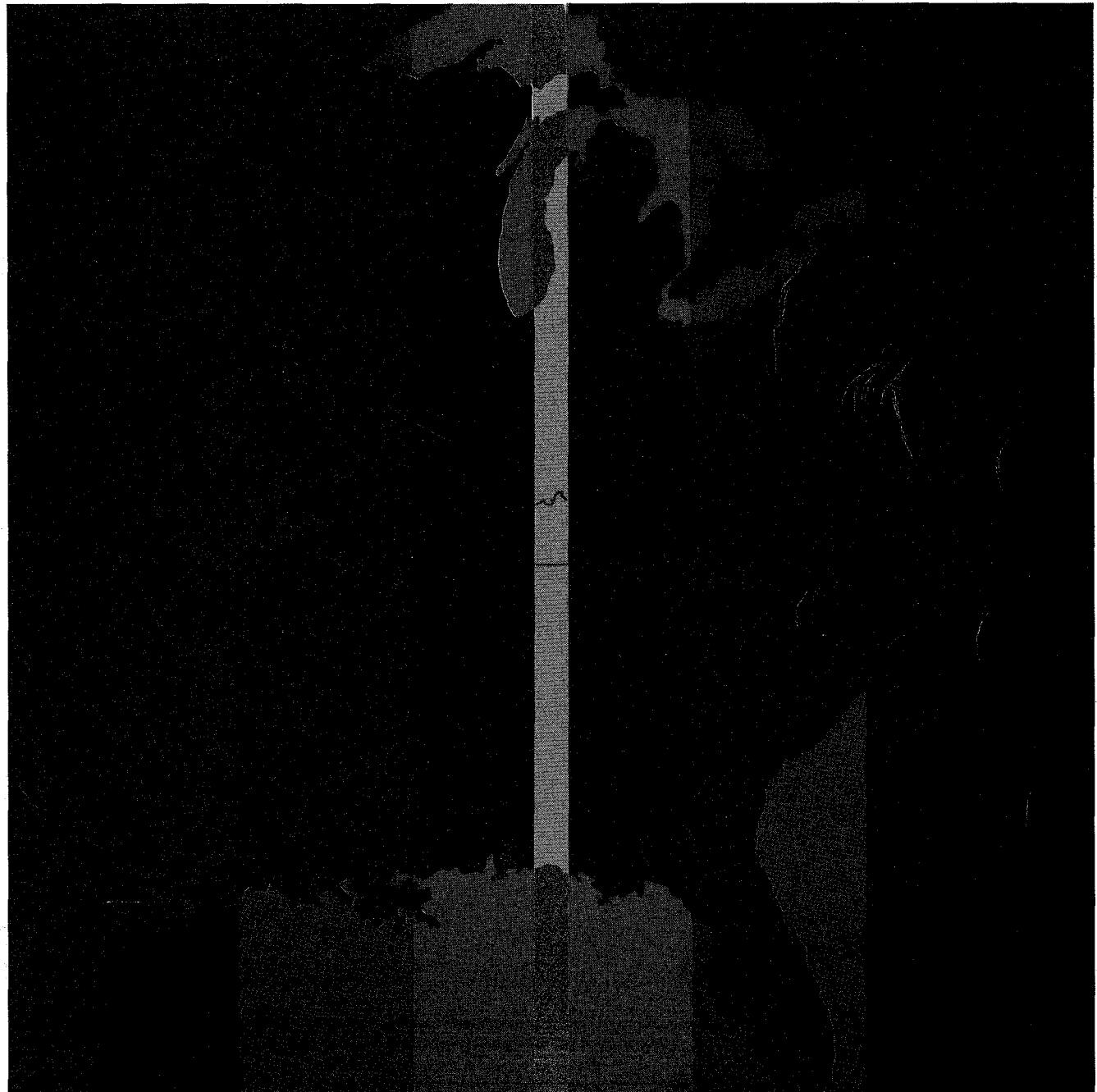


**Western Kentucky
University Bulletin**



Graduate College Issue 1983-85



RAYMOND
GRADUAT

RAVENS
CENTER

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Volume 56**January 1983****Number 1****STUDENT RESPONSIBILITY**

All colleges and departments of the University establish certain requirements which must be met before a degree is granted. Faculty advisors, department heads, and deans are available to help the student understand and arrange to meet the requirements; but the student is responsible for fulfilling them. At the end of a student's course of study, if requirements for graduation have not been satisfied, the degree will not be granted. Thus, it is important for each student to become acquainted with all academic requirements and to be responsible for completing all such requirements in a timely manner. In no case will a regulation be waived or an exception granted because a student pleads ignorance of the regulation. Requests for waiver of regulations stated in this bulletin must be presented to the Graduate Council.

STATEMENT OF COMPLIANCE

Western Kentucky University is committed to equal opportunity. It is an Equal Opportunity-Affirmative Action Employer and does not discriminate on the basis of age, race, color, religion, sex, national origin, or handicap in any employment opportunity. No person is excluded from participation in, denied the benefits of, or otherwise subjected to unlawful discrimination on such basis under any educational program or activity receiving federal financial assistance.

If you have experienced discrimination in such educational programs or activities, written inquiries about procedures that are available at the University for consideration

TABLE OF CONTENTS**Statement of Compliance****Student Responsibility****Summary and Procedures****The University** 4

Historical Sketch 4

The Graduate College 4

History 4

Administration 4

Cultural, Religious, and Recreational**Opportunities** 4

Music 4

Communication and Theatre 4

Art 4

Modern Languages and Intercultural Studies 4

Lecture Series 5

Planetarium 5

Recreational Activities 5

Religious Life 5

Libraries, Resource Centers and**Instructional Media** 5

Library Services 5

Media Services 5

Archives 6

Research and Computing Services 6

Cooperative and Experiential Education 6

Non-Academic Services 6

Counseling Services Center 6

Housing Facilities 6

Food Services 6

Financial Assistance 7

Loans 7

Workshops 7

Research Grants 7

Veterans Administration Benefits 7

Graduate Assistantships 7

of complaints alleging such discrimination should be directed to the President's Office, Western Kentucky University, Bowling Green, Kentucky 42101. Inquiries about such alleged discrimination also may be made directly to the Director, Office of Civil Rights, United States Department of Health, Education, and Welfare, Washington, D.C. 20201.

Inquiries about employment discrimination may be directed to the Affirmative Action Officer, Western Kentucky University, Bowling Green, Kentucky 42101, or The Commission on Human Rights, Commonwealth of Kentucky, 828 Capital Plaza Tower, Frankfort, Kentucky 40601, or Equal Employment Opportunity Commission, 1800 G Street, N.W., Washington, D.C. 20506, or Office of Federal Contract Compliance, United States Department of Labor, Washington, D.C. 20210.

General Information	8	College of Arts and Humanities	19
Academic Year	8	Art	20
Graduate Fees	8-9	Communication and Theatre	21
Registration Procedures	8	English	23
Course Numbering System	8	Government	25
 		History	26
Graduate College Regulations	10	Journalism	27
Course Load	10	Modern Languages and Intercultural Studies	28
Time Limitation for Completion of Degree	10	Music	30
Transfer Credit	11	Philosophy and Religion	31
Correspondence Study	11	Sociology and Social Work	32
Graduate Record Examination	11		
Program of Study	11	 	
Course Substitutions	11	College of Business Administration	36
Program of Study Change	11	Accounting	37
Grades	11	Business-Distributive Education and Office	
Admission to Candidacy	12	Administration	38, 42
Comprehensive Examination	12	Economics	38
Second Master's Guidelines	12	Finance and Quantitative Business Analysis	38
Seniors Earning Graduate Credit	12	Management and Marketing	39
Advisory Committee (Thesis)	12		
Advisory Committee (Specialist Project)	12	 	
Thesis or Specialist Project	13	College of Education	41
Maintaining Matriculation	13	Center for Career and Vocational Teacher Education	42
Application for Degree	13	Educational Leadership	43
 		Home Economics and Family Living	49
Admission Requirements	13	Physical Education and Recreation	52
Application for Admission	92	Psychology	53
Initial Procedures	13	Teacher Education	56
Master's Degree Applicants	13	Non-Degree Programs	46
Specialist Degree Applicants	14	Rank I Programs	46
Applicants from Non-Regionally			
Accredited Institutions	14	 	
International Students	14	College of Science, Technology, and Health	63
Senior Citizens	14	Agriculture	64
 		Biology	66
Degrees Available	14	Chemistry	68
Master of Arts	14	Geography and Geology	71
Master of Arts in Education	14	Health and Safety	74
Master of Science	14	Industrial and Engineering Technology	75
Master of Business Administration	14	Mathematics and Computer Science	77
Master of Music	14	Physics and Astronomy	80
Master of Public Service	14		
Specialist in Education	15	 	
Joint Doctoral	15	Board of Regents	82
 		Administrative Staff	82
Outline of Degree Requirements	15	 	
Master of Arts and Master of Science	15	Graduate Council	82
Master of Arts in Education	15	 	
Master of Public Service	16	Graduate College Staff	82
Specialist in Education	16	 	
Cooperative-Doctoral		Graduate Faculty	83
(With University of Louisville)	16	 	
Joint-Doctoral (With University of Kentucky)	16	Application for Admission (for your convenience)	92

THE UNIVERSITY

Historical Sketch

Western Kentucky State Normal School, located in Bowling Green, was established by an act of the 1906 Kentucky General Assembly. Prior to 1906, there had existed in Bowling Green the Southern Normal School and Bowling Green Business University, whose president was Dr. Henry Hardin Cherry. In 1907 the Southern Normal School was transferred to the state, and Dr. Cherry was selected as the first president of Western Kentucky State Normal School. In 1922 the Kentucky Legislature changed the school's name to Western Kentucky State Normal School and Teachers College and empowered the College to award degrees to its graduates. In 1930 the school's name was changed to Western Kentucky State Teachers College, and in 1948 to Western Kentucky State College. The Kentucky General Assembly in 1966 designated Western as a University and changed the name to Western Kentucky University.

In 1964 the Bowling Green College of Commerce was organized into an academic division of Western, and the Graduate Division was changed to the Graduate School. In 1965 Western's Board of Regents approved the formation of three new colleges: the College of Education, the Potter College of Liberal Arts and the Ogden College of Science and Technology. In 1969 the name of the Graduate School was changed to the Graduate College. In 1972 the Potter College of Liberal Arts was renamed Potter College of Arts and Humanities, and the Bowling Green College of Commerce was renamed the Bowling Green College of Business and Public Affairs; in 1979 it was reorganized as the Bowling Green College of Business Administration.

THE GRADUATE COLLEGE

History

Western began offering the Master of Arts Degree in 1931. This program was discontinued in 1936 but was resumed in 1941 and has enjoyed continuous growth since that time. The granting of university status in 1966 gave the Graduate School (renamed the Graduate College in 1969) increased opportunity both to strengthen existing programs and to offer an even wider choice of program areas.

Administration

The Dean of the Graduate College is charged with the administration of policies regulating and relating to graduate studies. It is his/her responsibility to certify that candidates have fulfilled requirements for advanced degrees.

The Graduate Faculty consists of faculty members recommended by department heads and college deans, and approved by the Graduate Council.

The Graduate Council, which represents the Graduate Faculty, recommends and reviews policies pertinent to the operation of the Graduate College. In addition, it reviews and makes recommendations regarding new graduate programs and alteration of existing programs. Requests for waiver of regulations stated in this bulletin must be presented to the Graduate Council.

CULTURAL, RELIGIOUS AND RECREATIONAL OPPORTUNITIES

Music

The Department of Music sponsors a number of musical presentations including seasonal concerts. In addition, many faculty and student recitals are given throughout the year.

Communication and Theatre

The Department of Communication and Theatre and the Western Players present a series of programs during the academic year. Summer Theatre programs are scheduled during the summer sessions. A small fee is charged for admission to major productions; however, there is no admission charge for one-act plays produced by the Department.

Art

The Department of Art has a gallery in the Ivan Wilson Fine Arts Building where a display is usually on exhibit.

Foreign Languages

The Department of Modern Languages and Intercultural Studies sponsors an annual International Film Series, an auxiliary event of the Fine Arts Festival. The series, consisting of twelve films from twelve different countries, is shown in the original language with English subtitles. This event exposes the WKU and Bowling Green communities to acclaimed motion pictures which cannot be seen in local theatres or on commercial television.

Each year one graduate student is permitted to go to Montpellier, France, on a University Workshop. While there, the student may take courses for transfer to Western and will serve as advisor to Western undergraduates who are attending the University Paul Valery on the Western-in-France program. In order to have the experience needed for this advisory function, the graduate student must have spent his/her junior year in Montpellier.



LIBRARIES, RESOURCE CENTERS AND INSTRUCTIONAL MEDIA

Lecture Series

The Rodes-Helm Lecture Series was endowed in 1961 by Mr. and Mrs. Harold Helm of Montclair, New Jersey. The lecture series is named in honor of the late Judge John B. Rodes, father of Mrs. Helm, and in honor of Miss Margie Helm, sister of Mr. Helm and former Director of Library Services at Western. The endowment fund is to be kept intact and the income from it devoted to bringing distinguished lecturers to the Western campus.

The University Lecture Series brings to the campus three or four nationally known lecturers each school year. Students, faculty, and the general public are admitted to all lectures free of charge.

Planetarium

The Hardin Planetarium, a circular unit adjacent to the Thompson Science Complex, contains a Projection Hemisphere Room and a roof-top observatory which houses a 12½-inch Cassegrain reflector and associated photoelectric equipment.

Recreational Activities

Students and faculty are encouraged to use the Athletic Complex facilities. Swimming, dancing, tumbling, gymnastics, table tennis, judo, karate, wrestling, basketball, volleyball, badminton, tennis, weight training, conditioning, handball, squash, tennis, and archery facilities are available. Equipment is made available on a non-charge basis to students, faculty, and staff.

Religious Life

Since Western Kentucky University is a state-supported institution, it is non-denominational. Religious activities are, however, available to students. The Western Religious Council serves as the coordinating organization for religious activity on campus.

Support to the Research and Instructional Program of the University is provided through the activities and programs of the Divisions of Library Services and Media Services. These programs provide services for the acquisition, utilization, and dissemination of all types of instructional resources.

Library Services

Six library and resources centers serve the academic community at Western Kentucky University. They are: (1) the Margie Helm Library, (2) the Raymond L. Cravens Graduate Center and Library, (3) Kentucky Library and Museum, (4) Science Library, (5) the Education Resources Center, and (6) University Archives. These libraries and resource centers provide a seating capacity of 3,175 and a book capacity of 1,000,000 volumes.

Library resources are organized into divisional collections. This arrangement allows maximum benefits for reference and research activities among its 525,000 volumes; 6,075 journal holdings; 345,000 microform units within the libraries. An on-line computerized resources management system with remote video display terminals provides the library user with immediate data on the availability and status of library resources.

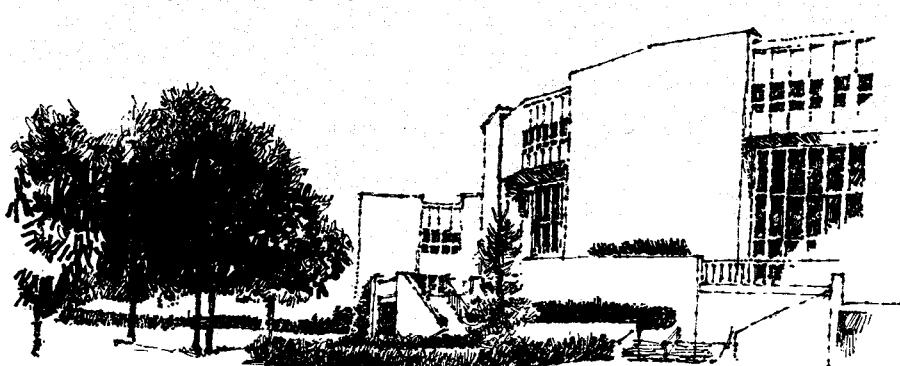
Individual carrels are provided for students engaged in thesis or research projects, and rooms are provided for graduate seminars. The library offers aid to researchers through extensive bibliographies, indexing and abstracting services, and interlibrary loans. The library is a depository for federal, state, and selected United Nations documents. Significant collections of research materials in several fields are available in various forms of micro-reproductions. Various computer based research services are available. Western also holds membership in the Center for Research Libraries (CRL) which provides the library and its patrons with access and borrowing privileges to over three million volumes and 14,000 journal titles in a wide variety of subjects and languages.

A special research collection is housed in the Kentucky Building. These resources consist of both printed materials and museum collections relating to all phases of Kentuckiana. There are 25,000 volumes, a large number of early newspapers and periodicals, state documents, broadsides, photographs, maps, microfilm, original cartoons, oral tapes, and art prints. Also available are church records, clippings, sheet music, and scrap books. The manuscript division includes collections such as the Lewis-Starling papers, the Joseph R. Underwood papers, the Proctor Knott Collection, the Calvert-Younglove Collection, the Frank Chelf Collection, the Helm-Carson Family papers, and the Janice Holt Giles Manuscripts. The Courtney Ellis River Collection, the H. O. Potter Daviess County Collection, and the Lilly Bland Carter Poetry Collection are other notable collections housed in the manuscript division. The Kentucky Library also houses the Gordon Wilson Linguistic Study of the Mammoth Cave, the Allan Trout Collection, and the South Union Shaker Materials.

Museum holdings include items of natural history, Civil War relics, furniture, art, musical instruments, toys, jewelry, and textiles as well as pioneer relics, early types of lighting, tools and weapons, and models of Kentucky forts and homes.

Media Services

The Division of Media Services is a service organization consisting of two units: (1) the Audio Visual Service Center and (2) Educational Television. The staff, facilities, and equipment of the Audio Visual Service Center provide both audio visual resources and utilization assistance for the entire campus. The Division is also responsible for the administration of the film library and photographic darkrooms. Educational Television provides instructional support in the planning, development, production, and campus distribution of these types of instructional resources.



Archives

The University Archives is housed in Wilson Hall. The purpose of the Archives is to collect, preserve, and organize for appropriate use the records of the University which are required for administrative functions and are essential for the historic study of the institution and its genealogical antecedents. Such records include correspondence, reports, minutes, photographs, scrap books, publications, as well as clippings and articles about the University and its personnel. Reference service is available.

Research and Computing Services

Computing and consultation services for research and instructional application are provided for faculty and students by the Area of Research and Computing Services in the Office of Institutional Research. Most computing for research and instructional application, with the exception of data processing and computer science classes, is done on a batch terminal connected to the Kentucky Education Computing Network. The University maintains a small business-type computer and a time-sharing system which are used primarily for instructional programs in data processing

and computer science. The University's central computer facilities are used mainly for administrative applications.

The wide variety of computer programs and statistical packages that are maintained will satisfy most data analysis requirements. Although the primary responsibility for research design and data analysis rests with the individual researcher, the Area assists students and faculty by providing methodological programming, and other services related to the use of computer facilities. Academic and research computing facilities are operated on an open lab basis during periods that approximate normal library hours.

Cooperative and Experiential Education

Cooperative education integrates classroom study with specific periods of supervised work experience. Though traditionally a program for undergraduate students, several departments are participating in Co-op programs at the graduate level. Contact the Office of Cooperative and Experiential Education, Room 521, Grise Hall, for further information.

Counseling Services Center

The Center, located in Room 408 of the College of Education Building, provides counseling services and is responsible for the administration of national testing programs. Contact the Center for appointments and for test information.

Housing Facilities

Residence hall applications (with advance payment) should be sent to Director of Housing, Western Kentucky University, Bowling Green, Kentucky 42101.

Residence halls are assigned according to student preference and availability of space. Graduate student floors are located in Bemis Lawrence Hall for women and Pearce-Ford Tower for men. Telephones and compact refrigerators are provided.

Food Services

Food services maintained on campus include the Garrett Conference Center Cafeteria, which offers a voluntary board plan, and the Downing University Center Cafeteria, Snack Bar, and Grill. Vending services are available in all dormitories.



Loans

National Direct Student Loan. This long-term loan is designed to assist the student whose family income and total assets place limitations upon other sources (bank loan, family savings, etc.) of educational funds. The loan is interest free while the student is in school and charges only five percent interest during the repayment period. In addition to the interest-rate advantage, the borrower may discount 15 percent of the loan each year, up to 100 percent of the total loan, by teaching in an elementary or secondary school in an economically deprived area.

Guaranteed Student Loan. This long-term loan may be secured through the student's local bank. Student applicants who qualify for interest subsidy begin paying interest at a rate of nine percent upon expiration of a six months grace period after student status ceases.

College Heights Foundation Loan. This loan permits borrowing for extreme emergencies at low interest and requires repayment on a short-term basis.

Workshops

The University participates in both a work-study and a regular program of employment whereby a student may work 15 hours per week during the regular term of study, providing such work is needed to balance the college expense budget. The work-study program offers summer employment which permits the student to work 40 hours per week. Eligibility to participate is based on family income. Assistance in obtaining off-campus employment is also available.

Application Information. Application forms for financial assistance are available in:

Department of Student Financial Aid
Western Kentucky University
Bowling Green, Kentucky 42101

For maximum consideration, apply before March 1.

Research Grants

Graduate students are invited to submit proposals for University research grants. Information as to application deadline and required proposal form may be obtained from the Graduate College.

Veterans Administration Benefits

G.I. Bill. Students who have had more than 180 days of active service with the Armed Forces after January 31, 1955, or have served less than 181 days but received an honorable discharge for service-connected disability are eligible for educational assistance under the Veterans Readjustment Benefits Act of 1966. Applications are made directly to the Veterans Administration, 600 Federal Place, Louisville, Kentucky. Application forms are available in the Department of Student Financial Aid. War Orphans and Widows of Deceased Veterans and Children and Wives of Disabled Veterans should contact the Veterans Administration nearest their hometowns for determination of eligibility for educational assistance.

Graduate Assistantships

Graduate assistantships are available in various departments and service areas to qualified students. Stipends vary depending upon the student's qualifications and duties assigned. In addition to the stipend, the out-of-state portion of the graduate assistant's fees is awarded in the form of a scholarship during the period of appointment and the summer term following a spring semester appointment. Graduate assistants are permitted to carry a maximum of 12 hours during a regular semester and 6 hours during a summer session. Since graduate assistants have responsibilities for their own studies and for services to the University, they are not permitted to hold an assistantship while being employed elsewhere.

Graduate assistants have professional responsibilities to the University; therefore, they are expected to familiarize themselves with the University policies and responsibilities and to fulfill their obligations in this respect. Stipends are paid at the middle of each working month.

The applicant for a graduate assistantship must have been admitted to a graduate program, must have an overall undergraduate grade point average of at least 2.8 or a score of not less than 1250 on the General (verbal, quantitative, and analytical combined) Test of the Graduate Record Examination, and should apply prior to February 1. The assistantship application and three letters of recommendation (to be requested by the student, not the Graduate College) must be submitted to the Dean of the Graduate College. Appointments are based upon the recommendation and approval of the head of the department and the dean of the college in which the assistantship is granted.

Graduate assistant appointments may be terminated upon failure of the appointee to maintain a grade point average of at least 3.0 in all coursework taken during any enrollment period or upon failure to maintain conduct compatible with the University's function as an educational institution as defined in "Hilltopics, A Handbook for University Life," an annual publication of the Office of the Dean of Student Affairs.

Senior Citizen Scholarship Program

Persons 65 years of age and older are granted tuition scholarships for any college class for which they enroll, whether for credit or audited.

GENERAL INFORMATION

Academic Year

The University provides a year-round instructional program consisting of the fall and spring semesters and a summer term (8 weeks). A wide offering of graduate courses is available to students during the regular semesters and summer term.

Registration Procedures

The computer is utilized to facilitate registration for Western students. Spring semester, fall semester, and summer term registration packets will be prepared without request for all students who have applied for admission for that term. Registration packets shall be made for all graduate students who have been enrolled during the year prior to the registration for which packets are being made. For a specific registration, a packet will be prepared for every graduate student who was enrolled in any one term during the preceding year, as follows:

Specific Registration	Previous Terms of Enrollment
Spring	Spring, Summer, Fall
Summer	Summer, Fall, Spring
Fall	Fall, Spring, Summer

Students who were previously admitted but were not enrolled during the preceding year must complete a packet request form, obtained from and returned to the Graduate College.

Registration for extended campus classes is usually accomplished at the first class meetings. Contact the Office for Extended Campus Programs, 116 Van Meter Hall, for information.

Schedule Changes. The University reserves the privilege of cancelling any course which has insufficient enrollment to justify its continuation. Other adjustments in the schedule may be made when necessary.

Withdrawal From Class. A student who finds it necessary to withdraw from a course should notify the Office of Registrar.

Graduate Fees

Full-time Students

Term	Resident	Non-Resident
Spring or Fall semester	391.00	1,132.00
Summer Term	391.00	1,132.00

Part-time Students (per credit hour)

Term	Resident	Non-Resident
Spring or Fall semester	44.00	126.00
Summer Term	44.00	126.00

Note: Fees are subject to change without advance notice. Graduate students in music should refer to the department section for additional fees.

A minimum of nine hours during a regular semester and six hours during a summer session is required in order to be classified as a full-time student.

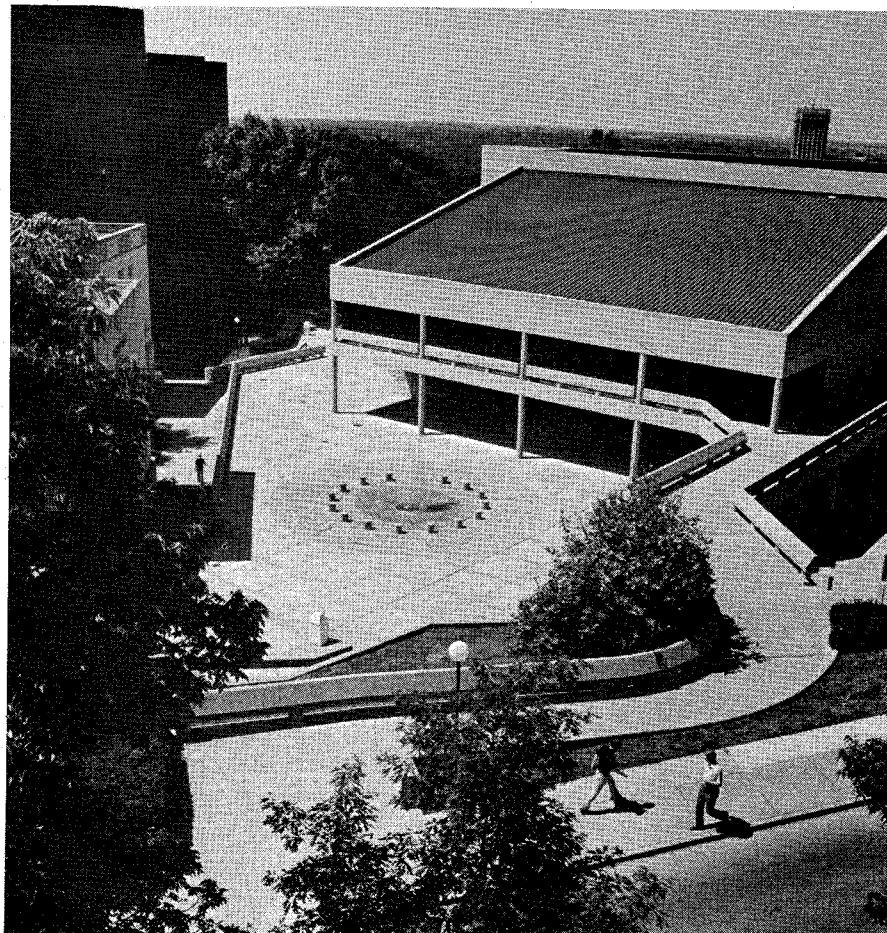
the 400-level and have a "G" designation (e.g. Eng. 401G) may be taken for graduate credit. In these courses, graduate students are expected to complete additional course requirements as prescribed by the instructor.

300: Courses numbered at the 300-level are for undergraduate credit and can be taken for graduate credit only in exceptional cases when permission is granted prior to enrollment in the course. Any request to take a 300-level course for graduate credit must be accompanied by a letter of justification from the department head and must be approved by the college dean and the graduate dean.

Course Numbering System

500-700: Courses numbered 500 and above are open only to graduate students. At least 15 hours of the master's degree program and at least 21 hours of the specialist degree program must be earned in courses open only to graduate students.

400G: Upper division undergraduate courses which are numbered at



The policy on classification of students for registration fee assessment purposes at state-supported institutions of higher education was established by the Kentucky Council on Higher Education. It is printed below.

Section 1.

INTENT. Under current law the Council on Higher Education as a matter of policy establishes a higher fee or tuition for non-resident students attending public institutions than that charged Kentuckians. It is the intent of the Council on Higher Education that the state institutions of higher education in the Commonwealth of Kentucky shall apply uniform interpretations, as described in this policy and not otherwise, in determining whether students shall be classified as residents or non-residents for fee assessment purposes.

Section 2.

DEFINITIONS. Wherever used in this policy:

(1) The word "institution" shall mean a college, university, or community college supported by appropriations made by the General Assembly of Kentucky.

(2) The word "residence" or "reside" shall denote continuous presence within this State, provided that temporary absence for short periods of time shall not affect the establishment of a residence.

(3) The word "domicile" shall denote a person's true, fixed, and permanent home and place of habitation. It is the place where that person intends to remain, and to which that individual expects to return when leaving without intentions of establishing a new domicile elsewhere. Residence and domicile convey the same notion of permanence and principal home and are used interchangeably.

(4) The term "emancipated person" shall mean a person who has attained the age of 18 years, and whose parents: (A) have entirely surrendered the right to the care, custody and earnings of such person; (B) who no longer are under any legal obligation to support or maintain such person; (C) who no longer, in fact, voluntarily contribute substantial financial assistance; and (D) whose parents' income is not taken into account by any private or governmental agency furnishing financial educational assistance to such person, including scholarships, loans and other assistance. If all of the aforesaid dependency tests

are not met, said person shall be deemed an "unemancipated person."

(5) The word "parent" shall mean a person's father or mother, or the parent having custody, or if there is a legal guardian or legal custodian of an unemancipated person, then such guardian or legal custodian; provided that such guardianship or custodianship was not created primarily for the purpose of conferring the status of resident on such an unemancipated person.

(6) Attendance at a college or colleges in this State shall be deemed "continuous" if the person claiming continuous attendance has been enrolled at a college(s) in this state as a full-time student, as such term is defined by the governing body of said college(s), for two consecutive regular semesters since the beginning of the period for which continuous attendance is claimed. Such person need not attend summer sessions or other such intersession in order to render person's attendance "continuous."

Section 3.

GUIDELINES FOR DETERMINATION OF STATUS.

(1) The domicile of an unemancipated person is that of one's parent.

(2) Upon moving to this State, an emancipated person who provides persuasive evidence of domicile may apply for resident classification for unemancipated children; and provided that said person is not personally in this State primarily as a full-time student, one's unemancipated children may at once be so classified.

(3) Any person who remains in this State when that individual's parent(s), having theretofore been domiciled in this State, removes from this State, shall be entitled to classification as a resident while in continuous attendance at the degree level in which currently enrolled.

(4) An unemancipated person whose parent is a member of the Armed Forces and stationed in this State pursuant to military orders shall be classified as a resident. The student, while in continuous attendance at the degree level in which currently enrolled, shall not lose resident status when that individual's parent is thereafter transferred on military orders.

(5) An emancipated person who moves to the State within six months from the date of discharge from the military service with the stated intent of becoming a resident of the State shall be permitted to count such time

spent in the military service toward meeting the presumptions outlined in Section 4, provided the individual entered military service from the State of Kentucky or maintains a home of record and permanent address in Kentucky at the time of discharge.

Section 4.

PRESUMPTIONS. Unless the contrary appears from clear and convincing evidence, it shall be presumed that:

(1) Except as provided in Section 4(2), every person remaining in this State in a non-student status for the twelve months immediately preceding the last date for enrollment in the institution shall be presumed to be a resident student for fee assessment purposes. No person having a domicile elsewhere than in this State shall be classified as a resident for fee assessment purposes.

(2) No emancipated person shall be deemed to have gained residence while attending any educational institution (public or private) in this State as a full-time student, as such status is defined by the governing board of such institution, in the absence of a clear demonstration that the student has established domicile in the State. However, attending college in a part-time status will not prevent such person who has bona fide full-time employment in the State from establishing domicile.

(3) The domicile of a married person shall be determined by the provisions of these regulations independent of the residency of the spouse.

(4) A person does not gain or lose resident status for reason of presence in any state or country while a member of the Armed Forces of the United States. However, a member of the Armed Forces of the United States stationed in Kentucky on military orders, except members of the Armed Forces specifically assigned for educational purposes to state-supported institutions of higher education, is presumed to be domiciled in the State and shall be entitled to classification as a resident while on active duty in this State pursuant to such orders. Resident status is similarly granted to one's unemancipated children.

(5) In the event an unemancipated person's parents should have separate domiciles, one's domicile shall be that of the parent having legal custody. In the event neither parent has legal custody, one's domicile shall be that of the parent furnishing the greater financial assistance.

GRADUATE COLLEGE REGULATIONS

(6) Use of records. A student whose admissions records show that individual to be a graduate of an out-of-state high school and one's residence to be outside of Kentucky will normally be classified as a non-resident.

(7) Aliens. Aliens lawfully admitted to the United States for permanent residence under a permanent visa may establish Kentucky residence in the same manner as any other non-resident. An alien who possesses a student visa cannot be classified as a resident.

Section 5.

TYPES OF EVIDENCE TO BE CONSIDERED FOR ESTABLISHMENT OF DOMICILE. If a person asserts that a domicile has been established in Kentucky for a period of twelve months immediately preceding the last date for enrollment in an institution, that individual has the burden of proving the point. The following statements pertain to the kinds of evidence that will be considered in reviewing an assertion by a person that one is domiciled in Kentucky.

(1) The following facts, although not conclusive, have probative value in support of a claim for resident classification: acceptance of an offer of permanent employment in this State; former residence in the State and the maintenance of significant connections therein while absent; or abandonment of a former domicile and establishing domicile in the State with attendance at an institution following and only an incident to such domicile.

(2) The following facts are not necessarily sufficient evidence of domicile: employment by an institution as a fellow, scholar, assistant or in any position normally filled by students; a statement of intention to acquire a domicile in this State; voting or registration for voting; the lease of living quarters; payment of local and state taxes; Kentucky automobile registration; Kentucky operators license; continued presence in Kentucky during vacation periods; marriage to a Kentucky resident; or the ownership of any real property.

Section 6.

RESIDENCY CLASSIFICATION AND APPEAL PROCEDURES. Each institution shall establish a Non-Resident Fee Committee to consider changes in resident status based on the above criteria. Application for change of resident classification shall be made in writing to the Office of the Registrar or to the Chairman of the Non-Resident Fee Committee. The Chairman may present each case to the Committee for a final decision, and the student will be notified in writing as to the disposition of the application.

In the event of a ruling by the Non-Resident Fee Committee which is unsatisfactory to the student, the student may request that a copy of the file be submitted by the Chairman to the Executive Director of the Council on Higher Education for referral to the Council's Committee on Residency Review for its recommendation to the institution.

Section 7.

EFFECTIVE DATE. These revised guidelines became effective on July 1, 1975, and supersede all previous policies of the Council relating to classification of students for fee assessment purposes.

Course Load

In general, the number of semester hours of credit which may be earned during a given term may not exceed the number of weeks of instruction.

During a regular semester, the course load for a full-time graduate student is 9-15 hours with 9 being the minimum and 15 the maximum. During a summer session, the minimum and maximum course load for a full-time graduate student is 6 hours.

Graduate assistants may take a maximum of 12 hours during a regular semester, 6 hours during a summer session.

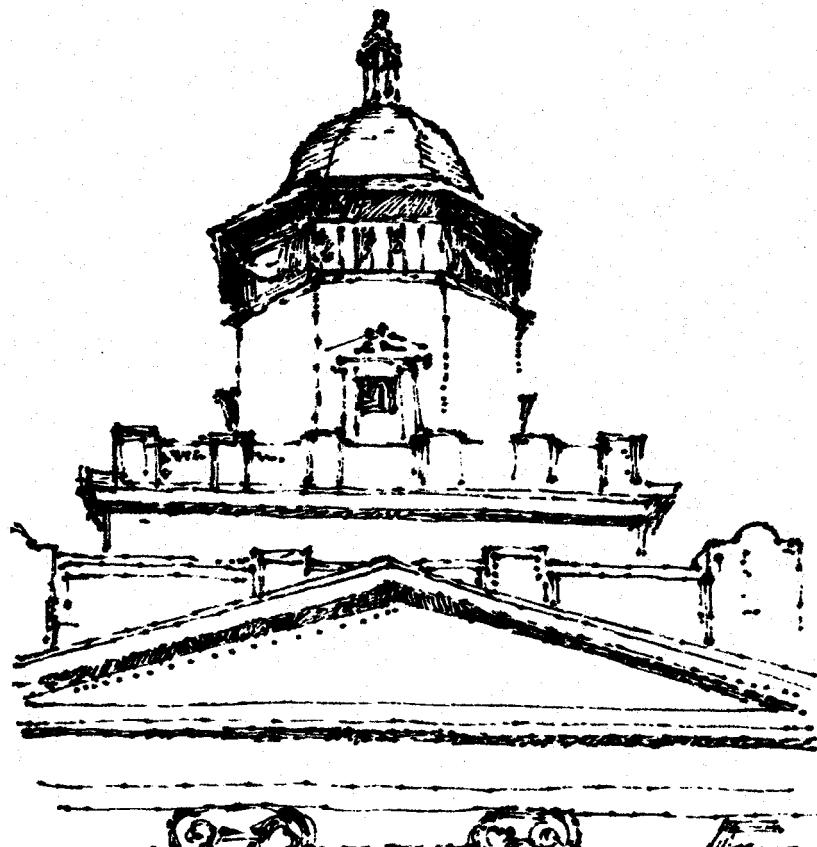
Maximum hour limitations include all courses taken whether they are for graduate or undergraduate credit or audited.

The fully employed, part-time student should attempt no more than 6 hours per semester.

Time Limitation for Completion of Degree

All requirements for the master's degree must be completed within five years from the date first course is taken.

All requirements for the specialist degree must be completed within four years.



Transfer Credit

Twelve hours of transfer work from an accredited institution may be accepted toward meeting course requirements for the master's or specialist degree; however, at least six (6) hours in the minor area and at least twelve (12) hours in the major area must be taken at Western.

The hours to be transferred must be properly designated as having been taken for graduate credit and must carry a grade of "B" or above. Credits earned during a given term must not exceed the number of weeks of instruction and must meet the specified time limit for the degree. Any course to be transferred must be appropriate for the degree program being followed and must be approved by the student's graduate advisor(s) and the graduate dean.

Correspondence Study

Courses taken through correspondence study cannot be used as a part of any graduate program.

Graduate Record Examination

All degree-seeking students (excluding M.B.A. students who must submit GMAT scores) must submit scores on the General (Aptitude) Test of the Graduate Record Examination regardless of their undergraduate grade point average. The scores must be received by the Graduate College prior to the completion of 12 hours and prior to enrollment in hours beyond 12 toward the program of study. Failure to submit the scores by the established deadline will result in the student having to take additional coursework.

Registration materials for the GRE and GMAT are available at the Counseling Services Center and the Graduate College.

Major Advisor

Upon admission to a graduate program, each student is assigned a major advisor from the eligible graduate faculty of Western Kentucky University.

Program of Study (Form C)

All degree-seeking students must submit a planned program of study (Form C) to the Graduate College prior to the completion of 12 hours (including transfer credits) and prior to enrollment in hours beyond 12 toward the program of study. The degree program is to be developed in consultation with and approved by the advisor(s) assigned at the time of admission. Failure to submit the approved program by the established deadline will result in the student having to take additional coursework.

Students entering fifth- or sixth-year (Rank II or Rank I) non-degree, professional education programs must also submit a program of study to the Graduate College as specified above. The approved program must be on file before a letter certifying completion of hours can be sent to the appropriate Board of Education.

All degree and non-degree programs must be reviewed and approved by the Graduate College Dean.

Course Substitutions

Any change in the approved program of study—the addition or deletion of a course, the substitution of a transfer course or of another Western course for a course on the program—must be outlined on a "course change" form, approved by the advisor and submitted to the Graduate College for final approval. This approval should be gained prior to enrollment in the course to be substituted.

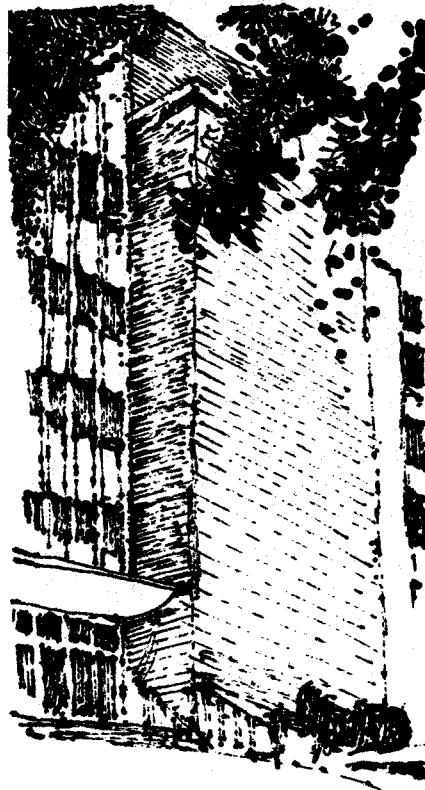
Program of Study Change

Students who wish to change from one program of study to another must apply on a "Change of Program" form. Admission to the desired program must be gained, and such admission constitutes a new date of admission. The advisor(s) assigned to the new program will evaluate any previously-taken courses for their applicability to the new program. All Graduate College regulations must be followed.

Grades lower than "C" may not be used in meeting degree or non-degree program requirements. Except in the case of theses or specialist projects, the grade of "X" (incomplete) becomes "F" on the student's transcript if the work is not completed within one calendar year. Thereafter, the grade point average will include the "F." In the case of theses (599) and specialist projects (699), a grade of "X" must be reported for each enrollment period prior to submission of the approved thesis or specialist project to the Graduate College after which the grade may be changed.

Candidates for graduate degrees are required to have a combined average of "B" in all courses taken in the major and minor areas, regardless of whether they are included on the approved program of study (Form C), and in courses used to meet the research tool requirements for the MA and MS degrees. The minimum acceptable grade for a master's thesis or specialist project is "B."

Grades are recorded in the Office of the Registrar as reported by the graduate faculty at the close of each academic term. No grade filed in that office may be changed except on a written statement from the instructor



certifying that an error has been made or, in the case of an "X," that the work was completed within the time limit.

Admission to Candidacy (Form D)

All degree seeking graduate students must apply for and be admitted to candidacy by submitting Form D to the Graduate College. Admission to the Graduate College and admission to candidacy are two separate procedures.

Students seeking master's degrees must apply for and be admitted to candidacy by submitting Form D to the Graduate College after completion of at least twelve hours of coursework and prior to enrollment in hours beyond 21 toward the program of study. Candidacy status requires the following:

- (1) approved program of study
- (2) removal of any deficiencies or conditions for admission prior to admission to candidacy
- (3) attainment of at least a 3.0 GPA on all graduate coursework at the time of admission to candidacy
- (4) for MA and MS candidates, the completion of any required research tool course(s) with a 3.0 or above or satisfactory completion of the foreign language examination at the time of admission to candidacy
- (5) approval of the major department and Graduate College
- (6) completion of at least nine hours of coursework in the program of study following admission to candidacy

Note: Master's degree students who enroll in 12-15 hours of coursework (applicable to their approved degree programs) during their very first semester should submit their applications for candidacy (Form D) to the Graduate College at the end of that semester.

Students seeking specialist degrees must apply for admission to candidacy by submitting Form D to the Graduate College after the completion of at least nine hours and prior to enrollment in hours beyond 18 toward the program of study. Candidacy status for the specialist degree student requires the following:

- (1) approved program of study

- (2) attainment of at least a 3.0 GPA on all graduate coursework at the time of admission to candidacy
- (3) approval of the major department and Graduate College
- (4) completion of at least 12 hours of coursework in the program of study following admission to candidacy

Note: Specialist degree students who enroll in 9-12 hours of coursework (applicable to their approved degree programs) during their first semester should submit their applications for candidacy (Form D) to the Graduate College at the end of that semester.

Failure to submit Form D and receive approval for candidacy by the established deadline will result in the student's having to enroll for additional hours of credit.

Admission to candidacy is a traditional component of graduate study the purpose of which is to provide a planned, formal review of the student's progress toward the specified program of study. The review enables the student, in consultation with appropriate University officials, to make warranted changes in the program. Admission to candidacy should be an expression of confidence that the student will (with appropriate, continued effort) be able to complete all requirements for the degree.

Comprehensive Examination

All graduate degree programs require that either a written or an oral examination be satisfactorily completed. After admission to candidacy and during the final term of enrollment (or, if a part-time student, after completion of at least 21 hours) the comprehensive examination must be taken. A written examination is required by some programs within the Master of Arts in Education degree and by the Administration option of the Master of Public Service degree. Specialist degree programs require an oral examination. Master's degree programs with thesis (Plan A) require an oral thesis defense. The student's committee for the oral examination consists of the graduate committee appointed by the major department or, in the case of the Master of Arts in Education, the committee consists of the major and minor advisors and one additional member selected by the

major advisor from the major department.

Students must contact their major advisors for scheduling the examination.

The chairperson will notify the Graduate College of the results of the examination through the use of Form E.

Second Master's Guidelines

The student who wishes to earn a second master's degree from Western Kentucky University must apply for and gain admission to the new program and must satisfy all requirements (specific coursework, research tool, thesis, etc.) for the new degree, completing at least 18 additional hours of coursework plus the thesis. No more than 12 hours of previous coursework, whether transferred from another university or from the previous master's degree at Western (or a combination of the two), may be used to fulfill program and research tool requirements.

Seniors Earning Graduate Credit

Seniors at Western or one of the cooperating consortium colleges may enroll in graduate coursework during their final undergraduate semester provided they (1) have an undergraduate grade point average of at least 2.5, (2) make formal application to graduate study (Form A should be submitted to the Graduate College at least four weeks prior to the beginning of the semester), (3) carry a final-semester course load of no more than 15 hours (combined undergraduate and graduate hours), and (4) do not, in any way, attempt to apply the graduate course(s) to the undergraduate degree.

Thesis and Specialist Project Advisory Committees

Students pursuing graduate programs requiring the thesis or specialist project are assisted by a thesis or specialist project advisory committee. In consultation with the student, the major advisor selects two additional eligible graduate faculty members—thus forming the three-member advisory committee, with the major advisor as chairperson.

In some cases, one member—other than the chairperson—may be

ADMISSION REQUIREMENTS

an individual who is not a member of Western's faculty. Those individuals must qualify and be recommended for adjunct regular or associate membership on Western's graduate faculty. An individual who has expertise in a pertinent area but who does not meet the requirements for appointment to regular or associate membership on the graduate faculty may serve as a fourth member of the committee with approval of the graduate dean.

Thesis or Specialist Project

The program of a student pursuing the master's thesis or specialist project must contain six (6) hours of credit in 599—Thesis Research and Writing or in 699—Specialist Project, respectively.

The thesis or project must be submitted to the Graduate College, in final form and approved by the student's committee members, at least three weeks prior to the date of graduation.

Complete instructions and requirements for preparing, submitting, and distributing the thesis or specialist project are given in "Guidelines for Master's theses and Specialist Projects." Copies are available in the Graduate College office. It is the student's responsibility to obtain and comply with these guidelines.

Maintaining Matriculation

If the thesis or project is not completed during the period of registration for this credit, the student must maintain matriculation until said thesis or project has been submitted and approved. Therefore, if not enrolled in thesis/project credit or for graduate coursework, the student must register for 599c (thesis) or 699c (project) during any semester or summer term in which he/she will be actively pursuing the thesis or project or will be submitting it for approval. Enrollment in 599c or 699c does not result in a grade nor credit toward any degree or non-degree program requirements.

Application for Degree

The degree candidate must complete a degree application (available in the Graduate College and in the Registrar's Office) and return it with the graduation fee to the Registrar's Office according to the dates established by the Registrar for each semester.

Initial Procedures

Degree students seeking admission must obtain from the Graduate College Form A (Application for Admission). The completed form must be returned well in advance of the expected date of matriculation. Graduates of accredited institutions other than Western Kentucky University must request one official transcript indicating the completed degree. The transcript must be forwarded from the college or university Registrar directly to the Graduate College. Applicants who have not yet completed the undergraduate degree submit one official transcript at the time of application and one official transcript after the degree is completed.

Transient students (working toward a degree at other institutions) must complete Form A but are not required to submit transcripts. Instead, they must obtain Form H from the Graduate College. This completed form must be returned to the Dean of the Graduate College at Western prior to enrollment.

Unclassified students (not seeking an advanced degree) must complete Form A and, if not a Western graduate, submit one official undergraduate transcript to the Graduate College.

Should the unclassified student later apply for and be granted admission into a degree program, no more than 12 hours taken while in the unclassified category may (with advisor approval) be used to fulfill degree requirements, provided time limitations etc. are met.

Requirements: Master's Degree Applicants

To be admitted to the Graduate College and be considered for admission to a master's degree program the applicant must:

- A. Hold a bachelor's degree from a college or university of recognized standing. (Applicants from non-accredited institutions see below.)
- B. Have adequate preparation in the field of specialization.
- C. Have (1) an overall grade point average of not less than 2.5, or (2) a grade point average of 2.5 on the last sixty semester hours of undergraduate work, or (3) a score of not less than 1150 on the General (verbal, quantitative, and analytical combined)

Test of the Graduate Record Examination. Requirements for admission to some programs are higher than these minimum standards.

D. Applicants for the Master of Business Administration program must submit scores on the Graduate Management Admissions Test in lieu of GRE scores, regardless of grade point average.

All other applicants must submit



GRE General scores, regardless of undergraduate grade point average, prior to enrollment in hours beyond twelve (12).

Requirements: Specialist Degree Applicants

Applicants for a specialist degree program must:

- A. Hold a master's degree from an accredited college or university.
- B. Have adequate preparation in the proposed field of specialization.
- C. Score not less than 1250 on the General (verbal, quantitative, and analytical combined) Test of the Graduate Record Examination.
- D. Have a grade point average of not less than 3.25 on the first 30 semester hours of graduate work.
- E. Present to the Graduate College three letters of recommendation from graduate faculty and professional associates.

Applicants From Non-regionally Accredited Institutions

Graduates of non-regionally accredited, four-year educational institutions may be conditionally admitted to the Graduate College and considered for admission to a master's degree program with a minimum GRE General (verbal, quantitative, and analytical combined) score of 1250, a minimum undergraduate grade point average of 2.5/4.0, and adequate preparation in the field of specialization, and one of the following:

- A. The undergraduate institution is a candidate for regional accreditation.
- B. The undergraduate degree is accepted as preparation for graduate study by that state's reporting institution.
- C. The student's GRE verbal score is at least 550 and the undergraduate transcript indicates completion of a minimum of 40 hours of general education coursework including:
 - a. at least 6 semester hours (or the equivalent) in each of the areas of communication, hu-

- manities, and natural science.
- b. at least 12 semester hours (or the equivalent) in social and behavioral studies, including history.
- c. at least 3 semester hours (or the equivalent) in mathematics or logic.

Completion of 12 hours of graduate credit with a grade point average of at least 3.00 removes the conditional status.

A student with a combined verbal, quantitative, and analytical GRE score of at least 1400 or a verbal score of at least 600 may request individual consideration by the Graduate Council.

International Students: Requirements

Applicants who are not U.S. citizens must submit (1) a properly completed application for admission, (2) an official transcript indicating completion of the baccalaureate degree (or the equivalent), (3) evidence (grades, test scores) of ability to communicate in English and of the academic aptitude necessary for success in Western's graduate program, and (4) evidence of the needed financial resources. After the file is complete with these credentials, evaluation is made within the department administering the degree program and admission is based upon adequate undergraduate preparation, academic aptitude, English ability, etc.

International students must arrive on campus three days prior to the beginning of registration for classes for orientation and testing of English proficiency. Students found to be deficient in English skills must take remedial coursework.

Health insurance must be purchased upon arrival at the University.

Senior Citizens

A senior citizen (65 years or older) who holds a bachelors degree may be admitted to the Graduate College as a Special Student. Upon completion of 12 hours of coursework in a degree program with a minimum grade point average of 3.0, the student may be admitted to that degree program.

Master of Arts. Programs leading to the M.A. degree are offered in the following fields: child development and family living, communication, English, folk studies, history, humanities, psychology and sociology.

Master of Arts in Education. This degree program permits majors in the following fields: agriculture, art, biology, business education and office administration, chemistry, communication, counseling (school), economics, elementary education, English, English and allied language arts area, early childhood education, exceptional child education, French, general education, geography, German, health, health and safety, history, home economics, industrial education, library science, mathematics, math-science area, music, physical education, psychology, reading, school business administration, science area, secondary education, social science area, Spanish, and student personnel services in higher education.

The secondary education degree program permits minors in the following areas: agriculture, art, biology, business education and office administration, chemistry, communication, distributive education, drama, economics, English, folk studies, French, geography, German, health, health and safety, history, home economics, industrial education, library science, mathematics, music, physical education, physics, psychology, science area, secondary education, sociology, and Spanish.

Master of Science. Programs leading to the M.S. degree are offered in the following fields: agriculture, biology, chemistry, communication disorders, computer science, geography, health, library science, mathematics, physical education, recreation, and institutional and home environment.

Master of Business Administration. Specific information and requirements are given under the administrative department.

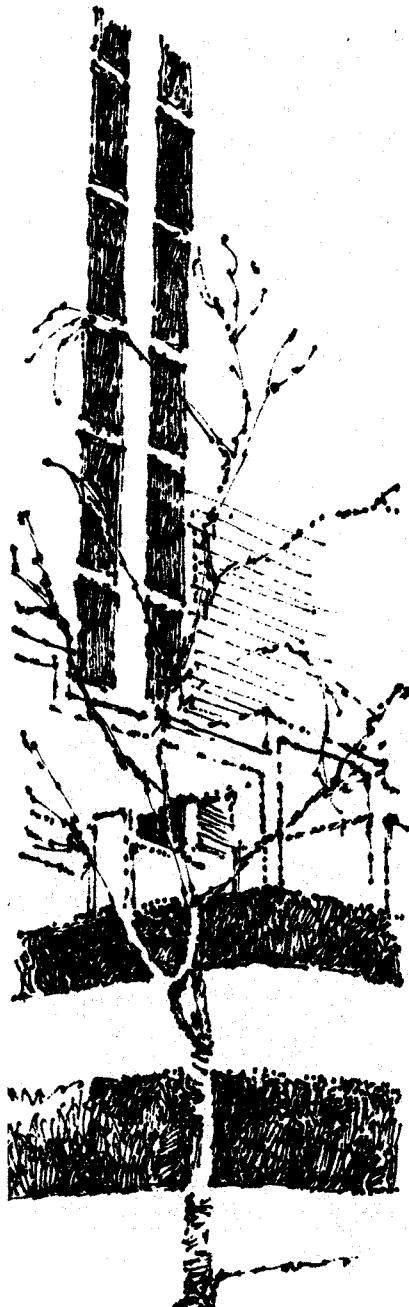
Master of Music. Specific information and requirements are given under the administrative department.

Master of Public Service. Program options leading to the M.P.S. degree are offered in the following fields: administration, city and regional planning, and counseling.

OUTLINE OF DEGREE REQUIREMENTS

Specialist in Education. The Specialist Degree in Education is available in counseling, elementary education, school administration, and secondary education.

Joint Doctoral. Western participates in joint-doctoral programs in education with the University of Kentucky and in a cooperative doctoral program in aquatic biology and in chemistry of free radicals with the University of Louisville.



The requirements outlined below are minimum requirements for the specific degrees. Some programs leading to the degree have requirements which exceed these minimums.

Master of Arts and Master of Science Degrees

Admission. In addition to meeting Graduate College requirements, applicants must possess at least a minor or its equivalent and a minimum grade average of 2.7 in the desired area of study.

Coursework. A minimum total of 30 hours of graduate level coursework (or 24 hours plus thesis) is required, with at least 15 hours in courses open only to graduate students.

Program. The student's approved program (Form C) must be on file by the completion of 12 hours and prior to enrollment in hours beyond 12 to be used on the degree program.

Research Tool. Unless the department has a specific requirement, the student may meet the research tool requirement by demonstrating (1) a reading ability sufficient to do scholarly research in a foreign language appropriate to the major area or (2) competency in the use of the appropriate research techniques recommended by the departmental advisor(s) and approved by the Dean of the Graduate College. No credit earned in meeting research tool requirements will apply toward the hours required for the degree. Minimum grade of "B" is required in courses used to meet the research tool requirement.

Language Reading and Translation Courses The French and German reading translation courses are offered during the fall semester only. Graduate students in degree programs which require the language proficiency test must make those courses a part of their first fall enrollment period.

Thesis. Some departments offer both Plan A (thesis) and Plan B (non-thesis). For Plan A, the thesis credit (6 semester hours) must be included in the hours (usually a minimum of 30) required for the degree. The thesis topic must be approved by the student's major advisor and department head. Students must maintain matriculation until the thesis is approved

(see "Thesis and Specialist Project" and "Maintaining Matriculation").

Admission to Candidacy. Candidacy status must be gained after completion of at least 12 hours and prior to enrollment in hours beyond 21.

Final Examination. A final examination over coursework and related materials must be satisfactorily completed. An oral thesis defense is required under Plan A (thesis option).

Master of Arts in Education Degree

Admission. In addition to meeting Graduate College requirements for admission, if applying for a program which involves teacher certification the applicant must meet certification requirements for that specific program.

Coursework. A minimum of 30 hours of graduate level coursework (or 24 hours plus thesis) is required, with at least 15 hours in courses open only to graduate students. All students pursuing this degree must complete Education 500—Research Methods—and must meet coursework requirements for any certification being pursued.

Program. The student's approved program (Form C) must be on file by the completion of 12 hours and prior to enrollment in hours beyond 12 to be used on the degree program.

Research Tool. Not required.

Thesis. Some departments offer both Plan A (thesis) and Plan B (non-thesis). For Plan A, the thesis credit (6 semester hours) must be included in the hours (usually a minimum of 30) required for the degree. The thesis topic must be approved by the student's major advisor and department head. Students must maintain matriculation until the thesis is approved (see "Thesis and Specialist Project" and "Maintaining Matriculation").

Admission to Candidacy. Candidacy status must be gained after completion of at least 12 hours and prior to enrollment in hours beyond 21.

Final Examination. A final examination over coursework and related materials must be satisfactorily completed. An oral thesis defense is required under Plan A (thesis option).

Master of Public Service Degree

Admission. The applicant must meet Graduate College requirements and must submit evidence of sufficient background in the chosen area of study.

Coursework. A minimum of 30 hours of graduate level coursework (or 24 hours plus thesis) is required, of which 9 must be selected from the MPS core area. At least 15 hours must be taken in courses open only to graduate students.

Program. The student's approved program (Form C) must be on file by the completion of 12 hours and prior to enrollment in hours beyond 12 to be used on the degree program.

Research Tool. Not Required.

Thesis. The thesis is not required. Only the City and Regional Planning option has a thesis plan available.

Admission to Candidacy. Candidacy status must be gained after completion of at least 12 hours and prior to enrollment in hours beyond 21.

Final Examination. A final examination over coursework and related materials must be satisfactorily completed. An oral thesis defense is required under Plan A (thesis option).

Specialist in Education

Admission. Applicants must hold the master's degree (or the equivalent), must have a minimum grade average of 3.25 on the first 30 hours of graduate work and a combined score of at least 1250 on the General (verbal, quantitative, and analytical combined) Test of the Graduate Record Examination, and must submit three letters of recommendation (sent directly to the Graduate College) from professors and professional colleagues.

Coursework. A minimum of 30 semester hours of graduate credit, 21 of which must be in courses open only to graduate students, must be completed.

Program. The student's approved program (Form B) must be on file by the completion of 12 hours and prior to enrollment in hours beyond 12 to be used on the degree program.

Residency. Two periods, consisting of a minimum of six hours each, of on-campus coursework must be completed. The student may meet this requirement in two summers, two semesters, or one summer and one semester. These 12 hours must be earned through traditional coursework (i.e., courses which may not be completed through independent study). The summer (8 weeks) will count as only one period in meeting this requirement.

Admission to Candidacy. Admission to candidacy must be accomplished after completion of a minimum of nine semester hours (at least six of which must be with Western Kentucky University) and prior to enrollment in the final twelve semester hours of the program.

Specialist Project. The project is an integral part of the specialist program and is planned with reference to the student's field of specialization and professional goals. It may take the form of a field project, a creative study, or a more formal research study and shall culminate in a written, scholarly report. Students must maintain matriculation until the project is approved (see "Thesis and Specialist Project" and "Maintaining Matriculation").

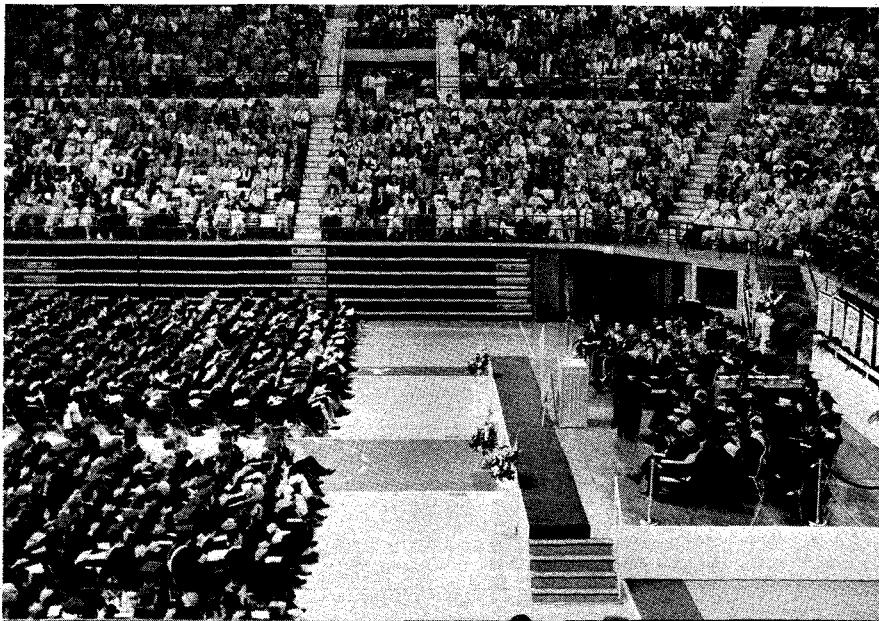
Final Examination. An oral examination covering the coursework and project must be satisfactorily completed. The chairperson will notify the Graduate College of the results through the use of Form E.

Cooperative-Doctoral (Ph.D.) with the University of Louisville

The cooperative-doctoral is limited to the Ph.D. program with emphasis in aquatic biology or in chemistry of free radicals. Admission requires concomitant admission to the Graduate School of the University of Louisville and the Graduate College of Western Kentucky University. Admission requires completion of the appropriate application forms at each institution and the payment of a non-refundable application fee of five dollars (\$5.00) to the University of Louisville, the transmission of one official transcript indicating adequate preparation and copies of two letters of recommendation to each Graduate College office, achievement of a combined score of at least 1,000 on the General (verbal and quantitative) Test of the Graduate Record Examination and a score at or above 40 on the Miller Analogies Test (to be sent to the University of Louisville), and approval by the graduate faculty members of both institutions.

The degree requires the equivalent of at least three years of full-time graduate study, at least two years of which must be spent on the cooperative campus (Western Kentucky University and/or the University of Louisville). A minimum of one year of full-time residence must be spent on the university campus on which the student's major professor resides.

The student's graduate committee will consist of at least five members, with at least two each from the University of Louisville and Western Kentucky University.

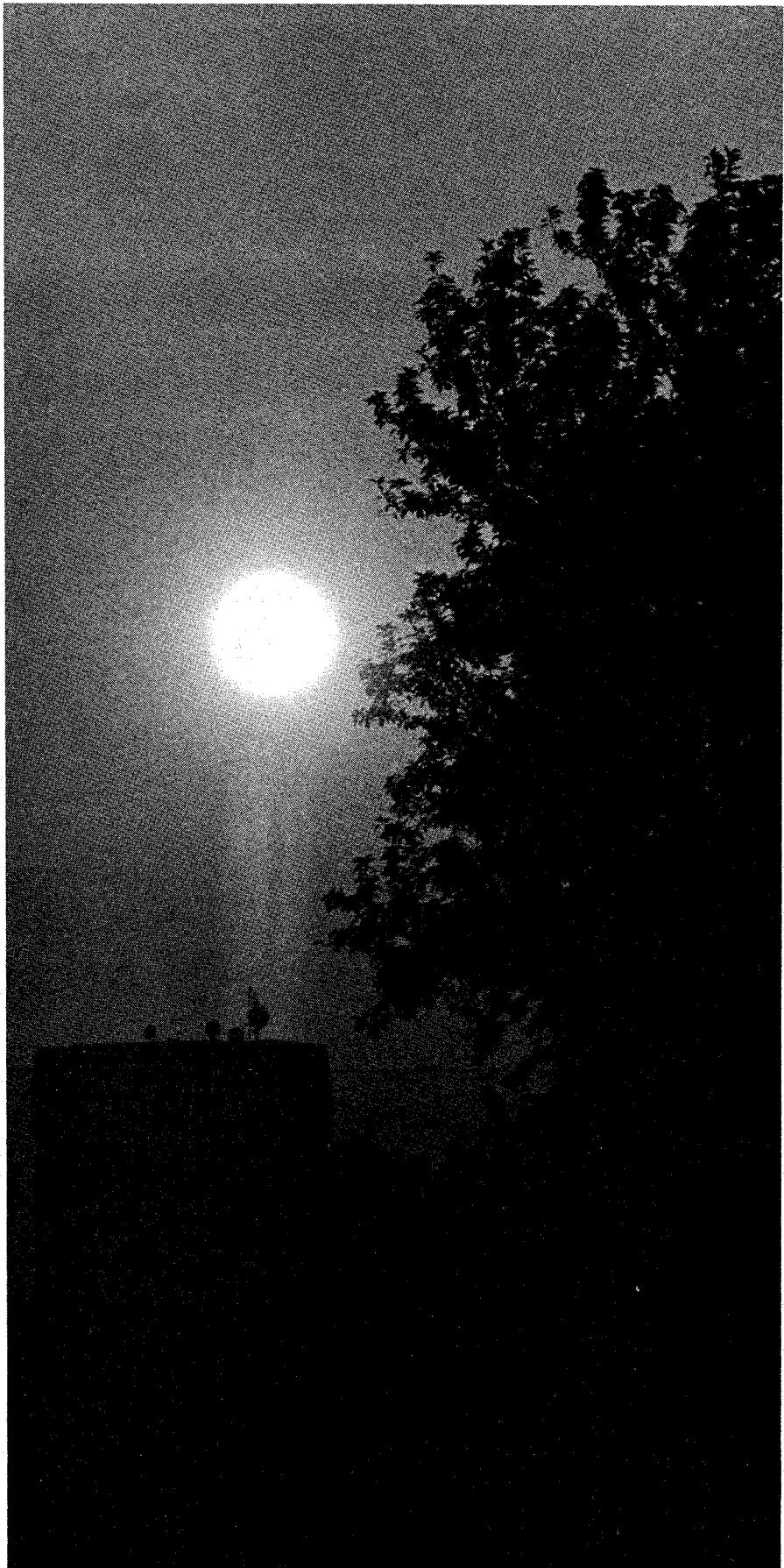


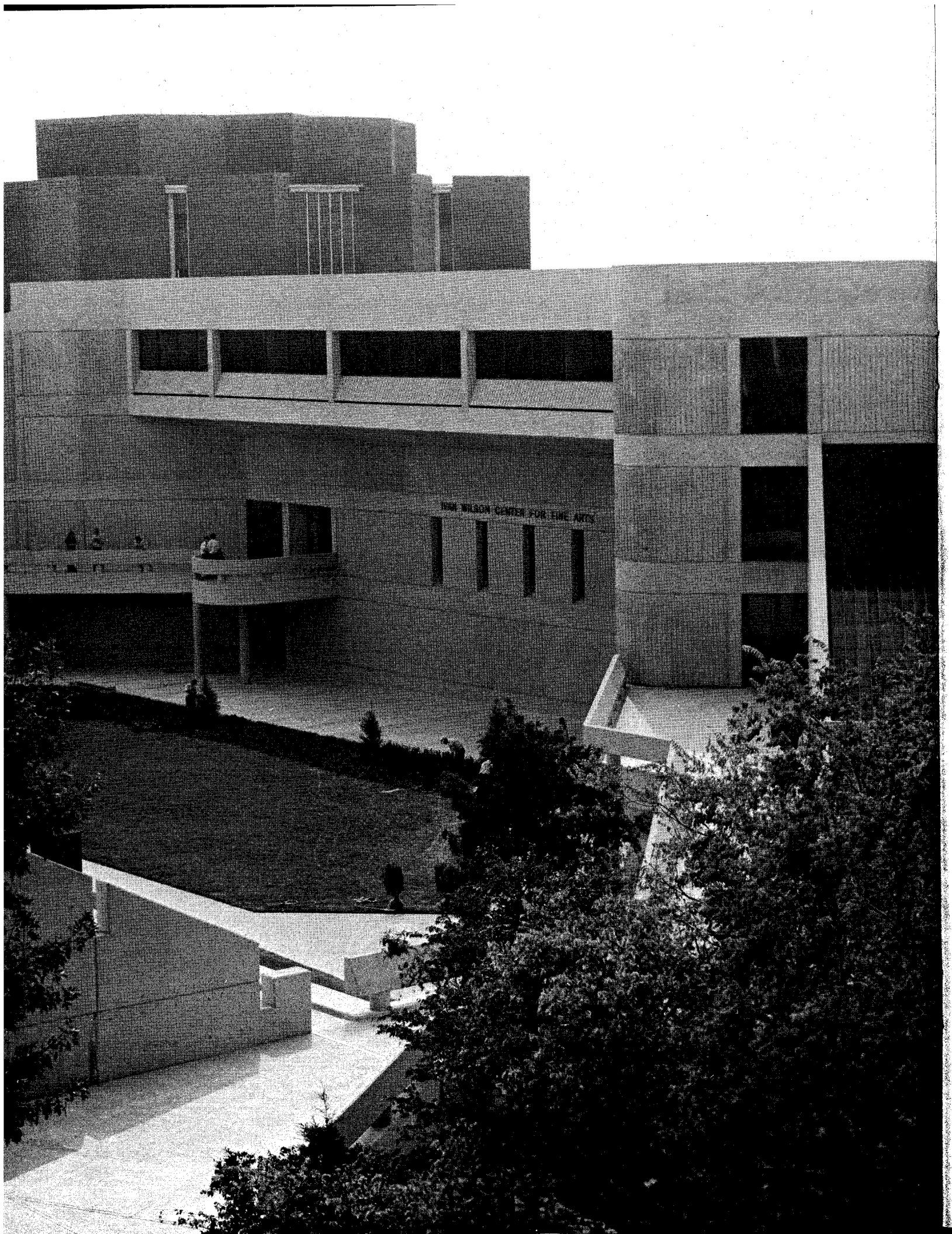
Requirements include an entry examination over material from the broad field of biology or chemistry and a preliminary oral and/or written examination after completion of the major portion of the prescribed coursework. A reading knowledge of at least one modern foreign language must be demonstrated before admission to candidacy.

The final oral examination consists of a defense of the dissertation and a demonstration of the candidate's mastery of the field of study.

Joint-Doctoral with the University of Kentucky

Admission requires concomitant admission to the Graduate College at Western and to the Graduate School and doctoral program at the University of Kentucky. Application forms are available in the Graduate College at Western and, upon completion, are to be returned to the Dean of the Graduate College, Western Kentucky University. If fully qualified, the applicant's credentials will be forwarded to the University of Kentucky. Requirements for admission include a combined score of at least 1,000 on the General (verbal and quantitative) Test of the Graduate Record Examination, completion of the Miller Analogies Test if the GRE verbal score is below 600, personal references, transcripts of previous academic work, a statement of educational goals, and a brief autobiography.





COLLEGE OF ARTS AND HUMANITIES

DEPARTMENTS

Art

Communication and Theatre

English

Government

History

Journalism

Modern Languages and Intercultural Studies

Music

Philosophy and Religion

Sociology and Social Work

DEGREES OFFERED

Master of Arts (Communication, English, Folk Studies, History, Humanities)

Master of Music

Majors and Minors Offered Under the Master of Arts in Education Degree

Art

Communication

Drama/Theatre

English

English and Allied Language Arts (Major only)

Folk Studies (Minor only)

History

Modern Languages (German, French, Spanish)

Music

Social Science (Major only)

Sociology (Minor only)

DEPARTMENT OF ART

IVAN WILSON CENTER
ROOM 441 (502) 745-3944

Joseph W. Gluhman, Head

Graduate Faculty

Professors: L. Fernandez, C. Forrester, J. Gluhman,
E. Monroe, N. Peterie, I. Shieferdecker, W. Stomps,
L. Wallace, W. Weaver

Associate Professors: M. Klein, J. Oakes

Degree Offered: Master of Arts in Education (Art major or minor)

A presentation of a portfolio or permission of the professor under whom the student plans to study is required for admission. The major requires 18 to 21 hours in art and 9 to 12 hours in professional education. The 18-21 hours in art can be selected to meet individual needs. The minor requires 12 to 15 hours in art and 15 to 18 hours in professional education. Professional education courses taken must satisfy the requirements for standard high school certification.

Graduate Courses in Art

500 History of Architecture and Sculpture During the Middle Ages. 3 hours.

Architecture and sculpture during the Middle Ages. Selected individual research problems.

501 History of Painting During the Middle Ages. 3 hours.

The history of painting during the Middle Ages. Lecture and independent study.

511 Investigations in Art Education.

3 hours.

Independent study in art curriculum and methodology, with emphasis on the literature, selected art history, and studio areas.

512 Investigations in Art Education.

3 hours.

Independent study in art curriculum and methodology (including art history and studio). Emphasizes the use of surveys, observations, and experimental techniques.

520 Ceramic Art. 3, 6, 9 hours.

Advanced levels of clay forming techniques and clay glaze composition. Research in various phases of the ceramic process.

540 Drawing. 3, 6, 9 hours.
Independent study utilizing traditional methods of drawing. Students are encouraged to investigate and utilize new directions.

550 Printmaking. 3, 6, or 9 hours.
Independent study utilizing traditional methods of printmaking. Encourages the investigation of new directions in personal expression.

560 Painting. 3, 6, or 9 hours.
Advanced aspects of painting, with emphasis on experimentation in different schools of painting and on individualized approaches.

570 Sculpture. 3, 6, or 9 hours.
Independent study and experimentation in sculpture.

580 Weaving. 3, 6, or 9 hours.
Individual study of weaving utilizing traditional and experimental techniques; the production of works that are highly individualistic and are of exhibition quality.

591 Investigations in Art History. 3 hours.
Topics and approaches for special areas of interest. Emphasis on the traditional periods of art history.

599 Thesis Research and Writing.
6 hours.

599c Maintaining Matriculation. 1 to 6 hours.

The following 400-level courses may be taken for graduate credit

401G Art in the Italian Renaissance.

402G American Architecture.

405G Art Theory and Criticism. 3 hours.
Major theories of art, both historical and contemporary, and of various approaches to qualitative judgments about individual works of art.

420G, 421G, 422G Ceramics.

440G Drawing.

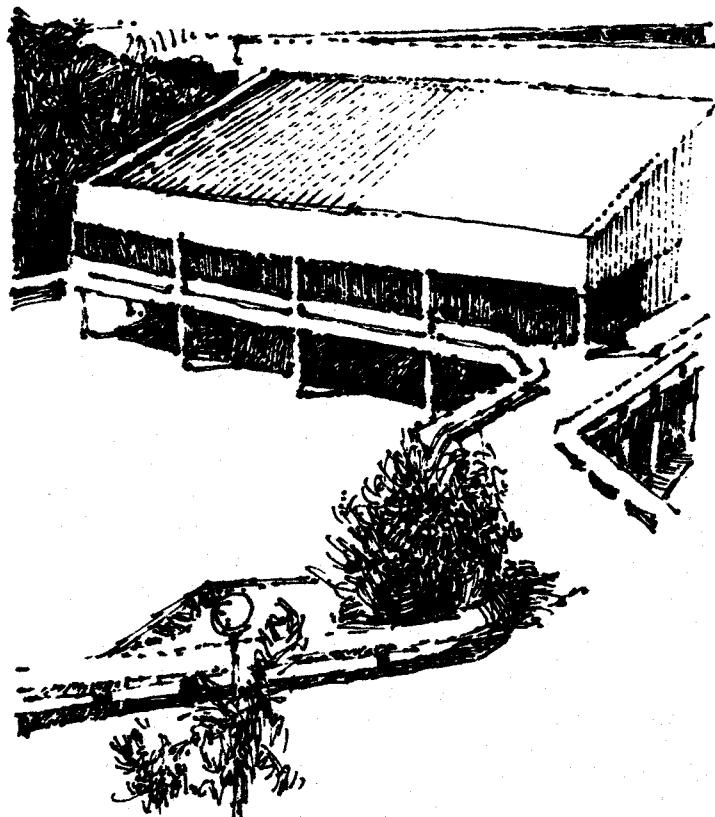
450G, 451G, 452G Printmaking.

460G, 461G, 462G Painting.

470G, 471G, 472G Sculpture.

480G, 481G, 482G Weaving.

490G, 491G Special Problems.



DEPARTMENT OF COMMUNICATION AND THEATRE

IVAN WILSON CENTER
ROOM 130 (502) 745-3296

Regis O'Connor, Head

Graduate Faculty

Professors: C. Anderson, R. Capps, C. Kell, W. Leonard, R. O'Connor, J. Wesolowski, D. Wicklander, L. Winn

Associate Professors: D. Combs, J. Kesler, L. Miller, E. Rudolph, L. Ruff

Assistant Professor: L. Caillouet

DEGREES OFFERED: Master of Arts in Communication, Master of Arts in Education (Communication major or minor), Master of Arts in Education (Drama/Theatre minor)

Master of Arts in Communication

This program provides preparation for students who plan to teach at the college level, to pursue additional graduate study, or to follow careers in fields where advanced study in communication would be helpful. To pursue a graduate degree in communication, a student must be eligible for admission to the Graduate College and must have at least an 18-hour minor, or the equivalent, in communication.

During the early stages of the program, the candidate

for the MA in Communication should, in consultation with his/her committee, decide whether to follow Plan A (thesis) or Plan B (non-thesis).

Maximum flexibility is provided for students pursuing the degree. Courses are organized to allow concentration in one of the following areas within the department: communication theory, general speech, interpretation, rhetoric and public address, mass communication, and drama/theatre. Students may, with permission of the advisors, take courses in related departments.

The MA in Communication requires 30 credit hours plus 4 hours of research tool for non-credit. The research tool requirements are as follows:

Com 501	Introduction to Graduate Study in Communication	1 hour
and		
Com 440G	Experimental Studies in Communication	3 hours
or		
Com 400G	Historical Studies in Communication	3 hours
		Total 4 hours

Occasionally, a tool other than 440G or 400G may be needed, in which case the student's graduate committee may submit an appropriate substitute.

Master of Arts in Education. (Communication major or minor; Drama/Theatre minor)

Since this program provides graduate coursework in speech or theatre for the public school teacher, all requirements for standard high school certification must be met. The major in communication requires a minimum of 18 or a maximum of 21 hours. The minor in communication or in theatre requires a minimum of 12 or a maximum of 15 hours in the appropriate area. The remaining hours will be taken in professional education.

Graduate Courses in Communication

500 Speech Communication Internship.
3 hours.
Practical experience in a speech communication situation. On-site guidance from a coordinator within the organization.

501 Introduction to Graduate Study in Communication and Theatre. 1 hour.
Nature and uses of research. Methods and career curricular information regarding the various areas of communication and theatre.

521 Evaluation of Mass Communication.
3 hours.
Criteria for determining the social responsibility of and for judging the performance of the mass media in America. Principal recurring schema used to evaluate the mass communication process.

522 Seminar in Mass Communication.
3 hours.
Selected topics in mass communication theory and practice: mass communication history, mass communication law and regulation, popular culture, message characteristics, etc. May be repeated with a different topic.

540 Seminar in Rhetoric and Public Address. 3 hours.
Theories of rhetoric and the application of rhetorical standards to selected speakers, movements, areas and periods. May be repeated with a different topic.

541 Seminar in Communication. 3 hours.
Selected topics in communication theory: interpersonal communication, persuasion and attitude changes, non-verbal communication, small group communication, language behavior, etc. May be repeated with a different topic.

542 Practicum in Communications Consulting. 3 hours.
Practical off-campus experience in the actual development, implementation, and evaluation of communications programs in organizations.

544 History and Theory of Interpretation.
3 hours.
History and development of interpretive theory from ancient times to the present. Use and developments of the interpreter's art, with analysis of contemporary principles and practices.

545 Seminar in Speech. 3 hours.
Content will vary. If offered as independent study, an area of individual interest may be pursued. If offered as a class, timely topics will be covered.

546 Seminar in Forensics. 3 hours.
Principles and procedures involved in directing the standard forensic events such as debate, extemporaneous speaking, discussion, original oratory, analysis of a public address. Also includes interpretive reading, duet acting, and story telling.

549 Rhetorical Theory and Criticism.
3 hours.
Development of the classical tradition in rhetorical theory, practice, criticism, and pedagogy, from pre-Aristotelian writings through twentieth century British and American theorists.

565 Seminar in Broadcasting. 3 hours.
Topical issues in the field of broadcasting. Individual student research and subsequent class discussion. Primary research methods and resources will be reviewed.

599 Thesis Research and Writing. 6 hours.
599c Maintaining Matriculation. 1 to 6 hours.

The following 400-level courses in Communication may be taken for graduate credit

400G Historical Studies in Communication. 3 hours. Research methodologies in communication and theatre.

401G History of Broadcasting in America. 3 hours. Historical factors in the development of primary means of contemporary print and broadcast mass communications; background data on the creation, adoption and diffusion of mass media in America.

405G Phonetics. 3 hours. Speech sounds, their production, and acoustic properties.

440G Experimental Studies in Communication. 3 hours. Research design, procedures, and reporting. Critical examination of experimental studies in various areas of communication.

441G Advanced Oral Interpretation: Prose. 3 hours. Study of prose with emphasis on differentiation of types of oral performance.

443G Contemporary Rhetoric and Public Address. 3 hours. Contemporary theories of rhetoric and persuasion as they relate to public address. Also includes analysis of contemporary public address.

444G Advanced Oral Interpretation: Poetry. 3 hours. An analysis of poetry fiction (short story, novella, novel) with emphasis on point of view, tone, and characterization in oral performance.

445G Research in Speech and Theatre. 3 hours. Usually offered as an independent study.

446G Classical Rhetoric. 3 hours. Greek and Roman theories of rhetoric: Plato, Aristotle, Cicero, and Quintillian.

447G American Public Address. 3 hours. Study and evaluation of selected speakers from American history.

448G Kentucky Oratory. 3 hours. Prerequisite: Com 447 or His 456. Studies speakers of influence in Kentucky and provides an overview of oratory from political, religious and social issues.

449G Speech Development. 3 hours. Speech as a teaching tool. Minor problems in voice control, articulation, and pronunciation.

460G Interviewing. 3 hours. Overview of principles and methods especially well suited to oral, one-to-one information gathering in an organizational setting. Emphasizes practice both in and out of the classroom.

461G Organization Communication. 3 hours. Theoretical examination of rhetorical principles operant in modern organizational communication systems.

463G Intercultural Communication. 3 hours. Dimensions of communication theory that apply across cultural boundaries, including anthropological and linguistic perspectives.

431G Musical Theatre. 3 hours. Development of the musical theatre; the style and form of its music, dance and drama; and its impact on the modern theatre.

441G Costume Design. 3 hours. For theatre majors and those interested in understanding the concept of costuming. Emphasis on the historical and practical aspects of theatrical costume design.

442G Historic Decor for Stage. 3 hours. Prerequisite: Theatre 251. Historic costumes of the major periods of theatrical production. Covers the costumed actor's problems with manners and movements.

455G American Drama. 3 hours. Development of American drama from the colonial period to the present. An overview of American drama and the works of major American playwrights of the past forty years.

456G Elizabethan Drama. 3 hours. Intensive study of the immediate predecessors and contemporaries of Shakespeare.

459G Modern Drama. 3 hours. Dramatic literature since Ibsen, with emphasis on evolving developments and trends in world theatre.

460G Studies in British Theatre. 3 hours. Includes a tour to England and viewing of representative plays, visits to historical and cultural sites.

461G Theatre Practicum. 3 hours. Reading of plays and dramatic materials; staging methods; script selection for production; prompt script with analysis of director's research; individual interpretation and production plans; final production.

462G Theatre History to 1640. 3 hours. Development of theatre from primitive ritual to closing of the English theatres.

463G Theatre History Since 1640. 3 hours. Development of theatre from 1640 to present.

471G Theories of Directing. 3 hours. Evolution of the modern director and the theoretical and practical bases of contemporary stage directing.

472G Readers Theatre. 3 hours. Methods of group oral interpretation of literature with emphasis on the short story, poetry, and drama. Includes analysis of literature, preparation of Readers Theatre and Chamber Theatre scripts, and performance in class projects.

482G Shakespeare I. 3 hours. See Department of English.

491G Puppet Theatre. 3 hours. Puppets, muppets and marionettes with emphasis on history, construction, operation, and performance.

Graduate Courses in Theatre

547 Instructional Technology. 3 hours.

550 Seminar in Theatre. 3 hours. Provides theatre experience through research and application. Individual investigation of interpretative, technical, or promotional problems.

552 Dramatic Theory and Criticism. 3 hours. Theories and practices within the theatre from Aristotle to present, criteria for critical analysis.

553 Restoration and Eighteenth Century Drama. 3 hours. Representative plays, evaluation of influences, movements, and productions. Reading and individual study.

554 Theatre Styles. 3 hours. Major stylistic impulses that have influenced the nature of drama and theatrical production within the Western World.

583 Shakespeare II. 3 hours. (See English 583)

The following 400-level Theatre courses may be taken for graduate credit

401G Styles of Acting. 3 hours. Acting problems as related to differences in genre and styles of dramatic production from the Greeks to the present.

422G Lighting Design. 3 hours. Lighting equipment demonstration and practical experience in working with lights for the major productions. Each student will design the lighting for a full-length play.

423G Theatre Management. 3 hours. Principles of management applied to fields of theatre operation, production preparation, and performance.

424G Special Problems in Technical Theatre. 3 hours. Advanced study in the areas of scenery, costume, lighting, and sound.

DEPARTMENT OF ENGLISH

CHERRY HALL
ROOM 135 (502) 745-3043

James S. Flynn, Head

Graduate Faculty

Professors: H. Bowen, M. Bruner, N. Davis, W. Fridy, J. Glaser, J. Heldman, W. Hellstrom, L. Little, G. McCelvey, D. McMahon, W. McMahon, R. Miller, F. Steele, J. Survant, R. Ward

Associate Professors: E. Eckard, J. Flynn, C. Guthrie, C. Mosby

Degrees Offered: Master of Arts in English, Master of Arts in Education (English major or minor; English and Allied Language Arts area major), *Specialist in College Teaching (English major).

*Specialist in College Teaching temporarily suspended

Master of Arts in English

This program is designed for students who are preparing to teach in secondary schools or junior colleges, or who expect to continue graduate work toward an advanced degree. To meet departmental admission requirements, the student must have a minimum of 27 hours of undergraduate English with a grade point average of 3.0 or above and a satisfactory score on the General Test of the GRE.

Both Plan A (Thesis) and Plan B (non-Thesis) are available. Plan A requires 24 hours of coursework and the 6-hour thesis. Plan B requires 33 hours of coursework. In either plan, 6 hours of coursework may be in a related field such as drama, English history, foreign literature, mass media, philosophy, or communication. Courses in each program must meet departmental requirements, a list of which is available from the English Graduate Advisor. The research tool, under both plans, may be met by demonstrating proficiency in a foreign language or by completing

English 520. If English 520 is designated as the research tool, it may not be included in the credit hours required for the degree.

An examination over the coursework, thesis (if Plan A), and related materials must be completed. Early in the graduate program, the student should obtain from the English Graduate Advisor a copy of the Reading List for the MA Oral Examination.

Master of Arts in Education (English major or minor; English and Allied Language Arts area major)

This degree qualifies the student for the standard high school certificate. To pursue a major or minor in English, the student must have completed at least 24 hours of undergraduate work in English.

The major in English is designed primarily for secondary teachers who wish to acquire a strong academic background in their teaching field. Requirements include 18 to 21 hours in English, 9 to 12 hours in education, and a final examination on courses and related materials specified in the Reading List for the MA Oral Examination. At the beginning of the graduate program, the student should obtain a copy of the reading list from the Graduate Advisor in English. The thesis is optional.

Students minoring in English take a maximum of 15 hours or a minimum of 12 hours in that department.

The major in English and Allied Language Arts is designed for middle and secondary school teachers involved in teaching basic language courses and in directing student activities related to the language arts. Admission to this program usually requires 24 hours of undergraduate coursework in English; however, to keep the entrance requirements as open as possible to qualified applicants, up to 9 of the 24 hours may consist of appropriate courses from related fields (foreign language, speech, drama, journalism, reading).

This area major requires 18 to 21 semester hours of coursework in English and Allied Language Arts (communication, drama, journalism, mass media, foreign languages, and folk studies). The requirement in English varies according to undergraduate preparation. English 401G—Advanced Composition—and 6 to 9 hours of British or American literature are required of all. The remaining 6 to 12 hours for the area major will be selected from allied language arts. Nine to 12 hours must be taken in professional education.

Graduate Courses in English

503 Linguistics and Transformational Grammar. 3 hours.

History and development of modern grammar and linguistic principles, a review of current professional writers, and an introduction to the various "new" grammars.

520 Bibliographical and Methodological Studies in Literature. 3 hours.

Basic bibliography and bibliographical problems; research methods requisite for the M.A. thesis and scholarly publications; methodologies of recent critical essays.

553 Restoration and Eighteenth Century Drama. 3 hours.

Emphasis on representative plays. Evaluation of influences, movements, and productions.

560 Literary Criticism II. 3 hours.
Critical theory and practice of significant literary critics of the Western world from the Romantic period to the present.

569 Cooperative Education in English I.
3 hours.
Prerequisites: A minimum of 9 graduate hours in English with a GPA of 3.25 or above; approval of the departmental co-op advisor and of the English departmental advisory committee.
Appropriate supervised work with a co-operating organization.

570 Practical Approaches to Literature.
3 hours.
Terms, concepts, and procedures of practical criticism through the study and practice of a variety of critical approaches to a representative sample of literary works.

571 British Masterpieces in the Classroom. 3 hours.

Masterpieces of British literature suitable for teenage students. Works suggested by those taking the course and a designated core of selections will be studied to aid teachers in making these masterpieces understandable, interesting, and enjoyable to secondary school students.

572 American Masterpieces in the Classroom. 3 hours.

Major American literary works appropriate for instruction in high school and junior high school. Works suggested by those taking the course and a designated core of selections will be studied to aid teachers in making these masterpieces understandable, interesting, and enjoyable to secondary school students.

581	Readings in Old English. 3 hours. Introduction to Anglo-Saxon vocabulary, grammar, and literary devices. Readings in the original and in translation.	599	Thesis Research and Writing. 6 hours.	481G	Chaucer. 3 hours. Representative works of Chaucer; backgrounds; outside readings and reports.
582	Middle English Literature. 3 hours. Non-Chaucerian English literature of the Middle English period. Language of the period reviewed.	599c	Maintaining Matriculation. 1 to 6 hours.	482G	Shakespeare I. 3 hours. Selected major Shakespearean plays read and studied in the light of the Elizabethan period as representing typical dramatic writing and production.
583	Shakespeare II. 3 hours. Selected comedies and histories. Individual research in literary criticism.			483G	The English Renaissance. 3 hours. Non-dramatic literature of the Renaissance, with emphasis on Spenser.
585	Milton. 3 hours. The writings of John Milton, with emphasis on his poetic works.	401G	Advanced Composition. 3 hours. Study and practice in various forms of writing and rhetorical principles.	484G	The Romantic Movement. 3 hours. Background and phases of romanticism; representative exponents of the Romantic Movement.
586	Seminar In British Writers. 3 hours. Content varies. Selected works or writers. Majors may repeat course once with different topic.	404G	The History of the English Language. 3 hours. Origin and development of the language from Indo-European to Modern English, with emphasis on developments in the sound system, vocabulary, and grammar; historical and cultural forces which have affected the language.	485G	The Seventeenth Century. 3 hours. Seventeenth century literature, forms, and developments.
587	Wordsworth and Keats. 3 hours. The major works of these two writers and an evaluation of their contributions to the Romantic Movement.	405G	Phonetics. 3 hours. Speech sounds, their production and acoustic properties.	486G	The Eighteenth Century. 3 hours. Eighteenth century literature, forms, and developments.
588	Modern British Poetry. 3 hours. Detailed study of the works of major twentieth century British poets.	407G	Descriptive Linguistics. 3 hours. Current linguistic theory which includes the important levels of language as a means of communication; various theories and applications of linguistic theory to other fields of study.	487G	Victorian Prose. 3 hours. Major prose writers of the Victorian period. Also covers political, social, and economic movements to show the interrelationships between the culture of the era and its literature.
589	Cooperative Education in English II. 3 hours. Prerequisites: A minimum of 9 graduate hours in English with a GPA of 3.25 or above; approval of the departmental co-op advisor and of the English graduate advisory committee. Appropriate supervised work with a co-operating organization.	410G	Theories of Rhetoric and Composition. 3 hours. Classical and contemporary theories of rhetoric and composition with emphasis on application of the theories to writing and to the teaching of writing.	488G	Victorian Poetry. 3 hours. Major poets of the Victorian period. Also covers political, social, and economic movements to show the interrelationships between the culture of the era and its literature.
591	Emerson, Thoreau, and Whitman. 3 hours. Selected works, cultural backgrounds, and contributions of these writers.	455G	American Drama. 3 hours. See Department of Communication and Theatre.	489G	The English Novel. 3 hours. Technique and history of the novel. Several representative novels studied.
592	The Age of Twain and James. 3 hours. Realism and naturalism in American literature. Emphasis on Twain, James, and their contemporaries.	458G	Elizabethan Drama. 3 hours. See Department of Communication and Theatre.	490G	The American Novel. 3 hours. The American novel from Cooper to the present. History, general development, and technique. Several representative novels studied.
593	Poe, Hawthorne and Melville. 3 hours. Selected works, cultural backgrounds, and contributions of these writers.	458G	Modern British Novel. 3 hours. Techniques and rationale in representative works of major British novelists from Joseph Conrad to the present. Intellectual climate of the period.	493G	Major American Poets. 3 hours. The major poems, the styles, and the poetic intent of the most important American poets from Poe to the present.
594	Contemporary Fiction. 3 hours. Selected major figures and their works. Consideration of movements, influences, developments since 1900.	459G	Modern Drama. 3 hours. See Department of Communication and Theatre.	494G	Kentucky Literature. 3 hours. Survey of literary people and places in Kentucky, including detailed study of several works of Kentucky writers.
596	Seminar in American Writers. 3 hours. Varies according to assigned instructor and student's needs. Usually covers group of writers, or one major writer.	460G	Literary Criticism I. 3 hours. Critical theory and practice of significant literary critics of the Western world from the Greek and Roman periods through the English Neo-Classical period.	495G	Southern Literature. 3 hours. Covers major, minor, and "regional" writers of the South.
598	Problems in English. 2 or 3 hours. Supervised research on literary or linguistic problems.	469G	Introduction to Teaching English as a Second Language. 3 hours. Theories, methods, and materials for teaching English as a second or foreign language.		

DEPARTMENT OF GOVERNMENT

GRISE HALL
ROOM 300 (502) 745-4558

George S. Masannat, Head

Professors: G. Bluhm, F. Carroll, C. Chelf, R. Cravens, E. Kearny, V. Martin, G. Masannat, F. Neuber, J. Parker, J. Petersen, J. Uveges

Associate Professor: J. Sloan

Degrees Offered: *Master of Arts in Government, Master of Public Service (Public Administration Option)

*MA in Government temporarily suspended

Master of Public Service (Public Administration option)

The Master of Public Service (MPS), an interdisciplinary program, is designed to prepare individuals for employment in governmental or quasi-governmental organiza-

tions requiring broad administrative knowledge as well as more specialized academic and practical training. The program requires the completion of a core curriculum consisting of courses from several departments and provides for career specialization within the option area. No thesis is required.

Requirements for the Public Administration option are:

Govt 540 Seminar in Public Administration and six hours selected from the following core courses:

Geog 484G Planning: Theory and Application
Govt 511 Seminar in State and Local Government
Econ 588 Public Sector Economics
Soc 542 Community

In addition to the core requirements, students must complete the following courses:

Govt 501 Methods of Political Inquiry
Govt 441G Public Personnel Administration
Govt 442G Government Financial Administration
Govt 545 Seminar in Public Policy Analysis

The remaining hours may be selected from the following:

Govt 417G Urban Political Systems
Govt 424G Administrative Law
Govt 510 Problems in National Government
Govt 547 Seminar in Urban and Regional Public Policy Analysis
Mgt 570 Business, Government, and Law
Mgt 575 Organization Theory
Soc 562 Formal Organizations
Psy 551 Social Psychology of Organizations

Graduate Courses in Government

501 Methods of Political Inquiry. 3 hours.

Analysis and description of the logic and procedures necessary for valid political inquiry.

510 Problems in National Government.

3 hours.

Research, reports, and discussion of selected aspects of national government.

511 Seminar in State and Local U.S. Government. 3 hours.

Selected problems at all levels of U.S. Government.

520 Seminar in Public Law. 3 hours.

Exposition, discussion, and analysis of concepts and issues in jurisprudence, and/or in administrative, constitutional, and international law.

530 Seminar in Political Theory. 3 hours.

Analysis of selected topics in political theory.

540 Seminar in Public Administration.

3 hours.

Analysis of behavior and problems of public organizations in democratic environments. Links societal values to administrative structure and behavior.

545 Seminar in Public Policy Analysis.

3 hours.

Theoretical approaches to the analysis of public policy, policy-making, and policy implementation and to such topics as health and welfare, poverty, education, and urban affairs.

547 Seminar in Urban and Regional Public Policy. 3 hours.

Current approaches to urban and regional public policy. Detailed treatment of se-

lected problems and related policy choices facing decision makers.

550 Seminar in International Relations.

3 hours.

Individual and group study of theories and practical applications of international relations.

560 Seminar in Comparative Government.

3 hours.

Study and research in the areas of democratic and totalitarian government.

580 Directed Study. 3 hours.

Faculty guidance of student research in one or more selected fields of political science.

The following 400-level courses may be taken for graduate credit

403G Field Studies in Politics. 1 to 4 hours.

Practical problems of political research.

Students will be directed through the design and execution of a major field study.

410G Seminar in National Government.

3 hours.

Prerequisite: Govt 110 or permission of the instructor.

Research, reports, and discussion of selected aspects of national government.

411G Seminar in State Government. 3 hours.

Prerequisite: Govt 110, 210 or permission of the instructor.

Research, reports, and discussion of selected aspects of state government.

412G Kentucky Government and Politics.

3 hours.

The governmental and political development of the state from its constitutional beginning to the present. Covers the ma-

jor factors and issues in the state's political development within the context of the national governmental setting and the role and influence of various political and social institutions in the state's political development.

417G Urban Political Systems. 3 hours.

Contemporary American urban political systems, socioeconomic values in the urban political culture and how they relate to political structures and activities.

423G Jurisprudence. 3 hours.

The nature of law; origins, evolutions and characteristics of the common and Roman law systems; principal schools of legal theory; and the arrangement, methods and processes of the law.

424G Administrative Law. 3 hours.

The development of and trends in administrative law with emphasis on problems caused by the exercise of quasi-legislative and quasi-judicial powers by administrative agencies.

432G Early Political Theory. 3 hours.

Political ideas in the West from Plato through Thomas Aquinas.

433G Modern Political Theory. 3 hours.

Prerequisite: Govt 432 or permission of the instructor. Political ideas in the West from Machiavelli to present-day theorists.

434G Contemporary Political Theory.

3 hours.

Prerequisite: Govt 432 or 433 or permission of the instructor.

Selected aspects of contemporary political thought.

435G American Political Theory. 3 hours.

American political theory from puritanism to present.

440G Elements of Public Administration. 3 hours. Focus on public administration theory and application in open and closed political systems. Personnel and financial management examined under changing systems of public control.	analysis as well as theories and models of policy evaluation.	463G Politics of the Developing Nations. 3 hours. Political culture, processes and problems of nations independent since World War II.
441G Public Personnel Administration. 3 hours. The development of modern personnel systems in the public sector. Emphasizes contemporary trends at the state, local and national level of governments.	450G International Relation of the Middle East. 3 hours. Relations among states in the area, with international organizations, and with the Soviet and Western blocs.	465G Middle Eastern Governments and Politics. 3 hours. Governmental and political processes of the Middle East, with emphasis on Iran, Israel, Turkey and Egypt.
442G Governmental Financial Administration. 3 hours. Budgeting and accounting processes of local government. Also includes state and federal grant and revenue-sharing programs.	461G Government and Politics of the U.S.S.R. 3 hours. The rise, sources and nature of communist ideology. Soviet political institutions, and functions of the Communist Party of the Soviet Union.	466G Far Eastern Governments and Politics. 3 hours. Political traditions, structures and processes of major governments in the Far East.
445G Public Policy Analysis. 3 hours. Covers theoretical approaches to policy	462G Latin American Governments and Politics. 3 hours. Basic governmental and political processes in Latin America. Emphasis on social and economic problems, political development, leadership recruitment, political instability and change.	499G Internship in Public Administration. 3 hours. Work experience in a public sector or non-profit agency combined with faculty direction.

DEPARTMENT OF HISTORY

CHERRY HALL
ROOM 200 (502) 745-3842

Richard Troutman, Head

Graduate Faculty

Professors: J. Bennett, C. Crowe-Carraco, J. Crowe, D. Harrington, L. Harrison, C. Jackson, M. Lucas, J. Minton, F. Murphy, R. Salisbury, R. Stone, J. Thacker, F. Thompson, R. Troutman

Associate Professors: C. Bussey, D. Lee, R. Weigel

Degrees Offered: Master of Arts in History, Master of Arts in Education (History major or minor). *Specialist in College Teaching.

*Specialist in College Teaching temporarily suspended

A person pursuing a graduate degree in history must take at least half of the work in history, excluding the thesis, at the 500 or 600 level.

Master of Arts in History

This program is designed to prepare students for the teaching of history on the junior or senior college level; to provide the initial graduate work for those who intend to pursue a doctoral degree; and to enhance the preparation of secondary teachers of history who desire to meet certification requirements through such a program.

In addition to meeting general Graduate College requirements, the applicant must present a major or minor in history with approximately a B average in this field.

A student who has an undergraduate major in history may be permitted to take six to nine hours of graduate work in a related field in courses approved by the Graduate Advisory Committee. A student who present an undergraduate minor in history must complete the entire program in the field of history.

Both Plan A (thesis) and Plan B (non-thesis) are available. Plan A requires a minimum of 24 hours of coursework, including European Historiography 435G or American Historiography 455G (unless previously taken) and the thesis. Reading proficiency in a modern foreign language must be demonstrated.

Plan B requires 36 hours, including at least 21 hours in courses open only to graduate students. Both European Historiography 435G and American Historiography 455G must be included on the program or used as a research tool. The research tool may be met by (1) demonstrating proficiency in a foreign language, (2) completing Math 203—Statistics, or (3) completing either History 435G or 455G.

A final examination over coursework, thesis (if Plan A), and related materials must be passed.

Master of Arts in Education (History major or minor)

Since this program is designed for the public school teacher, the student following it must meet all requirements for standard high school certification. A maximum of 21 or a minimum of 18 hours is required for a major. A maximum of 15 or a minimum of 12 hours is required for a minor. The remaining hours must be taken in professional education courses.

History and the Humanities Program

History is an integral part of the program leading to the Master of Arts in Humanities degree. As a general rule, students under the humanities program who enroll in graduate courses in history must have at least 18 hours of history as a prerequisite.

Graduate Courses in History

500 Cultural and Social Aspects of American Life. 3 hours. Designed for graduate students who have undergraduate majors in the field of elementary education.	directed by a faculty member. May be repeated once with a change of content.	425G Modern Germany. 3 hours.
501 European History for Secondary Teachers. 3 hours. Emphasis on bibliography, documents, historical interpretations and materials useful for secondary teachers of history.	599 Thesis Research and Writing. 6 hours.	426G The Middle East in Modern Times. 3 hours.
502 United States History for Secondary Teachers. 3 hours. Emphasis on bibliography, documents, historical interpretations and materials for secondary teachers of history.	599c Maintaining Matriculation. 1 to 6 hours.	428G England Since 1914. 3 hours.
515 Nineteenth Century Britain. 3 hours.	605 Seminar in Ancient History. 3 hours. May be repeated once with a different topic.	435G European Historiography. 3 hours.
521 United States 1900-1945. 3 hours.	606 Seminar in European History. 3 hours. Graduate Seminar in such diverse areas as the Middle Ages, the Renaissance, and the Reformation. May be repeated once with a different topic.	440G Colonial History of the United States. 3 hours.
525 Social and Intellectual History of the US: Nineteenth Century. 3 hours.	619 Seminar in United States Diplomatic Relations. 3 hours. May be repeated once with a different topic.	441G The Formative Period, 1776-1815. 3 hours.
526 Social and Intellectual History of the US: Twentieth Century. 3 hours.	622 Seminar in Western United States History. 3 hours. May be repeated once with a different topic.	442G The Jacksonian Era, 1815-1850. 3 hours.
527 Social and Intellectual History of Europe: Nineteenth Century. 3 hours.	630 Seminar in United States History. 3 hours. Graduate seminar in such diverse areas as Colonial America, the Confederation Period, the Federalist era, the Jeffersonian Republicans, the Slavery Controversy. May be repeated once with a different topic.	443G Civil War and Reconstruction, 1850-1877. 3 hours.
554 Discovery and Interpretation of Local History. 3 hours. Materials, methodology and techniques employed in local history research and its integration with other fields.	631 Seminar in Kentucky History. 3 hours.	444G The United States, 1870-1900. 3 hours.
569 Cooperative Education in History. 3 hours. Practical experience in a supervised work situation with a cooperating library, museum, archives, or other appropriate historical organization.	640 Seminar in College Teaching. 3 hours. Course organization, lecture preparation, professional development, ethics, testing procedures, and library development.	450G Diplomatic History of the United States to 1898. 3 hours.
590 Advanced Individual Study. 3 hours. Prerequisite: 3.0 average in at least 9 hours at the graduate level. A research problem or intensive readings	The following 400-level courses may be taken for graduate credit	451G Diplomatic History of the United States Since 1898. 3 hours.
	419G Tudor-Stuart England. 3 hours.	452G Urban History. 3 hours.
	422G The French Revolution and Napoleonic Era. 3 hours.	455G American Historiography. 3 hours.
		456G Kentucky History. 3 hours.
		457G The Old South. 3 hours.
		458G The New South. 3 hours.
		459G The Immigrant in American History. 3 hours.
		464G Latin America and the United States. 3 hours.
		479G Topics in the Third World. 3 hours. Intensive study of a selected Third World topic.

DEPARTMENT OF JOURNALISM

ACADEMIC COMPLEX
ROOM 323 (502) 745-4143

David B. Whitaker, Head

A graduate program is not offered by the Department of Journalism. However, students in other departmental programs may elect coursework from the limited offering in this area.

The following 400-level courses may be taken for graduate credit.

427G School Journalism. 3 hours.
Processes and problems of the mass media in our nation; responsibilities of advisors to school publication and broadcasting facilities; materials and re-

sources available to support mass communication instructional programs.

481G Problems in Mass Communication. 3 hours.
Individualized research, management, production, etc., in the fields of mass communication activities. Supervised internship with professional media operations. May be repeated once for credit.

DEPARTMENT OF MODERN LANGUAGES AND INTERCULTURAL STUDIES

IVAN WILSON CENTER
ROOM 251, (502) 745-2401

C. P. Brown, Head

Graduate Faculty

Professors: J. Anderson, J. Babcock, T. Baldwin,
C. Brown, P. Hatcher, J. Miller, L. Montell

Associate Professors: C. Collins, B. Feintuch, R. Martin,
R. Padilla

Assistant Professor: D. Kibbee

Degree Offered: *Master of Arts in Spanish, Master of Arts in Folk Studies. Master of Arts in Education: Spanish major or minor; French major or minor; German major or minor; Folk Studies minor only.

*Master of Arts in Spanish temporarily suspended.

The Historic Preservation option is available under the Master of Arts in Folk Studies.

Master of Arts in Education

Majors and minors are available in French, German, and Spanish. Since this program is designed for the public school teacher, students following it must meet all requirements for the standard high school certificate. Those persons majoring in French, German, or Spanish may take a minimum of 18 or a maximum of 21 hours. Those minoring in French, German, or Spanish may take a minimum of 12 or a maximum of 15 hours. The remaining hours will be taken in professional education. At least half of the required hours of coursework must be at the 500-level or above.

Graduate Courses in Modern Languages

French

520 **Seminar in French Literature or Language.** 3 hours.
524 **Nineteenth Century French Novel.** 3 hours.
526 **Modern French Poetry.** 3 hours.
529 **Seminar in French Literature.** 3 hours.
590 **Comparative Romance Linguistics.** 3 hours.
600 **Seminar in College Teaching.** 3 hours.

German

538 **Seminar in German Literature.** 3 hours.
539 **Seminar in German Literature or Language.** 3 hours.
600 **Seminar in College Teaching.** 3 hours.

Spanish

570 **Literature of Spain's Golden Age.** 3 hours.
Prose fiction, drama and poetry during the period 1479 to 1635.
572 **Nineteenth Century Literature.** 3 hours.
The novel, drama and poetry in nineteenth century Spanish literature.
575 **Twentieth Century Prose.** 3 hours.
The novel and the essay of the Generation of '98 and the novel of the post-civil war period in Spain.
576 **Twentieth Century Poetry and Drama.** 3 hours.
The drama of Spain from the Generation

of '98 through the contemporary period, with emphasis on Benavente and Garcia Lorca. Poetry from the Modernists through the contemporary period, with emphasis on Jimenez, Machado, and Garcia Lorca.

578 **Seminar in Hispanic Literature or Language.** 3 hours.
May be repeated once.
590 **Comparative Romance Linguistics.** 3 hours.
600 **Seminar in College Teaching.** 3 hours.

The following 400-level courses may be taken for graduate credit

French

420G **Advanced French Composition and Stylistics.** 3 hours.
Prerequisite: Fr 320.
Creative self-expression, refinement of grammatical understanding, the art of translation, and stylistic devices.

421G **Advanced French Conversation.** 3 hours.
Prerequisite: Fr 321.
Discussion on assigned topics and reports on current newspaper and magazine articles. Special emphasis on idiomatic expression.

422G **History of the French Language.** 3 hours.
Prerequisite: Fr 221.
Phonological, morphological, syntactic, and lexical changes which turned the Latin spoken in Gaul into modern standard French. No previous training in linguistics required.

423G **Seventeenth Century French Literature.** 3 hours.
Prerequisite: Fr 235.
Literature of the period, focusing on the works of Corneille, Racine, and Moliere

and the development of classic theory beginning with Malherbe.

425G **Nineteenth Century French Literature.** 3 hours.
Prerequisite: Fr 326 or permission of instructor.
Romantic, Realistic, and Naturalistic trends of the nineteenth century, as exemplified in the French novel.

426G **Twentieth Century French Drama.** 3 hours.
Prerequisite: Fr 326 or permission of instructor.
Covers principal authors and works, directors, and main currents of twentieth century French theatre.

427G **Twentieth Century French Novel.** 3 hours.
Prerequisite: Fr 326.
Novelists studied include Proust, Gide, Mauriac, Ayme, Camus, and Robbe-Grillet.

429G **Studies in French Literature or Language.** 3 hours.
Topic selected in consultation with assigned instructor (may include literature or language). May be repeated once.

German

430G **Advanced Written German.** 3 hours.
Prerequisite: Ger 330.
Covers selection of vocabulary and sentence structure appropriate to letters, reports, essays and descriptions.

431G **Advanced Spoken German.** 3 hours.
Prerequisite: Ger 331.
Practical in oral German with emphasis on student discussion of literary, cultural, and political topics.

432G **History of the German Language.** 3 hours.
Prerequisite: Ger 330 or permission of instructor.
Emphasis on the relationship of German

to the Indo-European and other Germanic languages and upon the development of modern standard German from the earliest recorded documents.

434G Survey of Nineteenth Century German Literature. 3 hours.

Prerequisite: Ger 334.

The major writers of Romanticism, Biedermeyer, and Realism with emphasis on prose and drama.

435G Twentieth Century German Literature. 3 hours.

Prerequisite: Ger 334.

Major German, Austrian and Swiss writers, with emphasis on prose and drama.

436G German Literature of the Classical Period. 3 hours.

Prerequisite: Ger 334.

The outstanding works of Goethe, Schiller and other authors of the late eighteenth and early nineteenth centuries.

438G Survey of the German Lyric. 3 hours.
Prerequisite: Ger 334.
German lyric poetry from the earliest times to the present. Representative works and authors.

439G Studies in German Literature or Language. 3 hours.
May be repeated once.

Spanish

470G Advanced Oral Spanish. 3 hours.
Prerequisite: Spn 370.
Conversation units, dramatic sketches, original oral topics.

471G Advanced Spanish Syntax. 3 hours.
Prerequisite: Spn 371.
Examination of selected literary works; original compositions on selected topics.

472G Background of Modern Spanish. 3 hours.
Prerequisite: Spn 371.
History of the Spanish language, stresses

the development of sounds and forms, word borrowings, and changes in meanings.

475G Literature of Spain I. 3 hours.

Prerequisite: Spn 374.

Peninsular Spanish literature from the beginnings through the 17th Century. Readings, reports.

476G Literature of Spain II. 3 hours.

Prerequisite: Spn 374.

Peninsular Spanish literature from the 18th Century to the present. Readings, reports.

477G Spanish American Literature. 3 hours.

Prerequisite: Spn 374.

Spanish American literature from the pre-conquest period through the contemporary period.

479G Studies in Hispanic Literature or Language. 3 hours.
May be repeated once.

Master of Arts in Folk Studies

The study of folklore involves examination and analysis of traditional expressive culture in all its forms—including oral, musical, and material. In every society, literate and non-literate, agricultural and industrial, rural and urban, folklore is a vital part of life. Thus, the discipline has close affinities with literature, anthropology, sociology, history, geography, philosophy, and psychology. Adequate undergraduate preparation in any of these disciplines will be acceptable for admission to graduate study in folk studies. The student without sufficient background may be required to take additional courses.

Plan A (thesis)

This program is intended to provide advanced knowledge of the theoretical and methodological aspects of folkloristics. Coursework will emphasize the history of the discipline, field research techniques, and surveys of various folklore genres. It is designed to prepare students for both academic and public sector professions ranging from serving as state folk arts coordinators to teaching in universities, junior colleges, and in high schools.

Plan A requires a minimum of 30 hours plus the research tool. Specific requirements are 12 hours of folklore at the 500 level, including FS 577 and 578; twelve hours of folklore or selected courses in related disciplines; and the thesis.

The research tool requirement may be met by demonstrating proficiency in foreign language or by completing FS 578 and replacing it with an additional folklore course. The student must also pass a comprehensive written examination.

Graduate Courses in Folk Studies

500 American Folklore. 3 hours.

An overview of American folklore fields: myths, legends, folktales, folksongs, proverbs, beliefs, customs, folk speech, material culture, etc. Not recommended for folk studies majors.

566 Oral History Materials and Methods. 3 hours.

Philosophy of oral history, kinds of materials included, methodology, legal and

ethical considerations, uses and planning local oral history projects.

567 Folklife Studies. 3 hours.

An overview of folklore studies focusing on its historical development, methodologies, and theories.

569 Folklore Genres. 3 hours.

An examination of the oral and material culture genres of folklore, and the theories and methods of genre studies.

570 Appalachian Folklife and Folklife. 3 hours.

Folklife and culture of the Upland South, with emphasis on verbal and material traditions.

571 Folk Narrative. 3 hours.

A survey of narrative genres of folklore and applicable scholarship.

572 Applied Folklore. 3 hours.

Folklore concepts and methods as application-oriented research and public sec-

	Forms of folklore which occur within a conversational stream. Attention to proverbs, riddles, speech play, and belief. Expressive culture as a particular culture-specific mode of communication.	from local materials to meet individual and cultural preferences.
573 Seminar in Interpretation of Myth. 3 hours. Principal contemporary modes of research and interpretation of myth.	585 Topics in Folklore. 3 hours. Topics of current interest in the field. Content varies according to the instructor and apparent needs of the students. May be repeated once.	470G Museum Procedures and Preservation Techniques. 3 hours. Essential aspects of museums and of preservation, i.e., collecting, preserving, researching, exhibiting, and interpreting material culture.
574 Urban Folklore. 3 hours. Folkloric and cultural aspects of urban America, with emphasis on the traditions of ethnic, immigrant, occupational, and subcultural segments.	589FS Internship in Folk Studies. 3 hours. Supervised work situation with a cooperating business, industry, social or governmental agency, emphasizing application of advanced knowledge and skills in folk studies.	477G Folk Arts and Technology. 3 hours. Folklife research and selected world culture groups, with emphasis on preindustrial folk crafts, technology, and architecture in the United States. Special reference to northwest European antecedents, sources, and parallels.
576 American Traditional Song. 3 hours. Interdisciplinary examination of American folksong and folksong including ethnic, regional, and occupational manifestations. Emphasis on both conventional genres and cultural contexts.	589HP Internship in Historic Preservation. 3 hours. Supervised work situation with a cooperating business, industry, social or governmental agency, emphasizing application of advanced knowledge and skills in historic preservation.	478G Folklore in Literature. 3 hours. Readings in world literature from the Bible to the modern novel; aspects of folklife reflected there; the effects of unwritten literature on origins and development of written literature.
577 Folklore Theories and Techniques. 3 hours. Folklore scholarship, its historical development, and its principal bibliographical materials and their uses.	599 Thesis Research and Writing. 6 hours.	480G Women's Folklife. 3 hours. Images and roles of women in American and selected world cultures as reflected in folklife materials such as narratives, beliefs, ballads, rhymes, games, customs, and folk arts and crafts.
578 Folklore Fieldwork and Oral History. 3 hours. Examination of and practical experience in theories and techniques of folklore fieldwork and oral history.	599c Maintaining Matriculation. 1 to 6 hours.	
579 Directed Study and Research in Folklore. 3 hours. Prerequisite: FS 578 or demonstrated ability to work independently. Supervised individual study under the direction of a member of the folklore graduate faculty.	The following 400-level courses may be taken for graduate credit	480G Directed Independent Study in Afro-American Topics. 1 to 3 hours. Selected topics dealing with the life and times of the people of African ancestry in Africa and the Americas.
580 Folklore Conversation and Communication. 3 hours.	462G Folk Medicine. 3 hours. Historical circumstances, associations, and logic of traditional non-scientific medical practices. Cross-listed with Health and Safety.	490G Afro-American Seminar. 3 hours. Topics dealing with the African or Afro-American, past and present.
	464G Vernacular Architecture. 3 hours. The forms, functions, and styles of buildings constructed according to custom	

DEPARTMENT OF MUSIC

**IVAN WILSON CENTER
ROOM 351 (502) 745-3751**

Wayne Hobbs, Head

Graduate Faculty

Professors: K. Campbell, H. Carpenter, W. Hobbs, S. Kersenabaum, D. Livingston, E. Pease, T. Watson

**Associate Professor: V. Hale
Assistant Professor: R. Morris**

Degrees Offered: Master of Music, Master of Arts in Education (Music major or minor).

Master of Music (Major in Performance)

This program is designed for students who seek a career in performance, symphony orchestra, or private studio teaching in college or community. In addition to the general Graduate College requirements, the applicant must have a bachelor's degree in music with a grade point average in music subjects of at least 3.0. In addition the individual must demonstrate ability and knowledge through examination in music theory, music literature, and the chosen area of performance.

Included in the required 30 hours (minimum) are 15 hours in the performance area; 12 hours selected from music literature, theory, composition, orchestration, or music psychology; and three elective hours. Music literature and music theory courses must be included.

Voice majors are required to demonstrate ability to sing in English and three foreign languages. Any deficiency in this area may require extra coursework. A full length public recital is required in lieu of a thesis.

All students pursuing the Master of Music will be administered a written comprehensive examination at the completion of their coursework.

Master of Arts in Education (Music major or minor)

Since this program is designed for the public school teacher, the student following it must meet all requirements for standard high school certification. The major re-

quires a minimum of 18 or a maximum of 21 hours in music. The minor requires a minimum of 12 or a maximum of 15 hours in that department. The remaining hours will be taken in professional education courses. (Note: Education 535, Seminar in Music Education, is recommended as a part of the education core). A typical program consists of a balanced selection of music education and music literature offerings. In addition, consideration is given to those with an interest in music theory, instrumental arranging,

applied music (primary or secondary), or a related field.

Music Fees

Individual or small group instruction in voice or musical instrument:
\$50 per semester

Graduate Courses in Music

500 Seminar in Theory. 3 hours.

501 Analytical Techniques. 3 hours.
Harmonic and contrapuntal analysis in various styles.

510 The Teaching of Applied Music. 3 hours.
Investigation of pedagogical problems in a specific performance area of music.

511 Investigations of Music Education. 3 hours.
Problems and Methods of research in music education. Includes application of pure and action research and investigation of published research in music education.

512 Music Education Workshop. 1 to 3 hours.
A variable topic workshop that may be repeated for a total of six hours.

513 Directed Individual Study. 3 hours.
Research projects in music education.

514 General Music in the Secondary Schools. 3 hours.
Training the music teacher to provide orientation experiences for junior and senior high school non-performers.

515 Administration and Supervision of Public School Music. 3 hours.
Current trends in educational thought and the implications of administration, instruction and evaluation public school instrumental music.

530 Music Literature. 3 hours.
Investigation of a specialized area not covered in other music literature courses.

538 Directed Individual Study. 3 hours.
Supervised private research culminating in a scholarly paper.

556, 557, 558, Applied Music Major. 4 hours.
(MM in Performance only)

559 Graduate Recital. 2 hours.
Required of candidates for the Master of Music Degree.

599 Thesis Research and Writing. 6 hours.

599c Maintaining Matriculation. 1 to 6 hours.

414G Choral Materials. 2 hours.

415G Choral Methods. 3 hours.

416G Instrumental Methods. 3 hours.

417G Marching Band Techniques. 2 hours.

430G Music Literature. 2 to 3 hours.
A survey embracing music of several periods, styles, and forms.

432G Research Techniques in Music. 3 hours.

440G Choral Union. 1 hour.

441G Choir. 1 hour.

443G Band. 1 hour.

444G Orchestra. 1 hour.

445G Madrigal Singers. 1 hour.

449G Chamber Music. 1 hour.

450G, 451G Applied Music Secondary. 1 hour.

453G, 454G Applied Music Principal. 2 to 3 hours.

471G Jazz Ensemble. 1 hour.

The following 400-level courses may be taken for graduate credit

402G Counterpoint I. 2 to 3 hours.
Prerequisite: Theory 201
Sixteenth Century polyphony.

403G Counterpoint II. 2 to 3 hours.
Prerequisite: Counterpoint I.

405G Choral Arranging. 2 hours.

406G Composition. 3 hours.
Prerequisite: Consent of the instructor.

407G Orchestration and Band Arranging. 3 hours.
Prerequisite: Theory IV.

DEPARTMENT OF PHILOSOPHY AND RELIGION

CHERRY HALL
ROOM 300 (502) 745-3136

Ronald H. Nash, Head

Graduate Faculty

Professors: M. Howe, W. Lane, R. Nash, D. Tuck, R. Veenker, A. Vos

Associate Professors: L. Mayhew R. Roberts, E. Schoen, J. Spiceland

Assistant Professors: J. Long, J. Trafton

Degree Offered: Master of Arts in Humanities (an inter-departmental program).

The Department of Philosophy and Religion administers the graduate program in humanities. In addition graduate courses in philosophy and religion give significant support to graduate programs in other areas.

The graduate program in humanities is designed to provide the student with a broad background in the intellectual and cultural achievements of Western civilization. It involves a serious attempt to develop a creative synthesis of those contributions which flow from the study of history, literature, philosophy, religion, and the fine arts. It traces the adventure of the human spirit across the disciplines with the intention of nurturing in the student an increased awareness of the interrelatedness of all knowledge.

At least 18 of the required 30 hours must be in courses numbered 500-level or above. The student's program must include one course each from history, philosophy, and literature (which includes religious literature), as well as a basic methodology course in interdisciplinary study (Humanities Seminar). Each student will also take

598—Humanities Essay (3 hours) or 599—Thesis Research and Writing (6 hours) *plus a final written examination*. The student must also demonstrate reading ability in either French, German, or Greek.

Options available within the core course sequence of this program include:

(1) A concentration in the history of ideas of a particular cultural epoch. The goal here is one of breadth of material and approach. The student electing this option will select one of three periods of Western civilization for the area of specialization: Ancient and Medieval; Renaissance

through Enlightenment; Nineteenth and Twentieth Centuries. Twenty-one of the student's thirty hours including thesis or essay are to be taken in the period of specialization. The research for the essay or thesis must also be in this period and must demonstrate a knowledge of the unifying relationships which exist between the various disciplines in the humanities.

(2) A specialization in philosophy or religious studies. This option permits a concentration in the more traditional disciplines of philosophy and religion while permitting a broad background in supporting disciplines.

Graduate Courses in Philosophy

500 Humanities Seminar. 3 hours. Problems in and approaches to interdisciplinary study.

501 Readings in Philosophy. 3 hours. Philosophic classics or readings in a selected area of philosophy. May be repeated with different topics.

502 Seminar in Ancient and Medieval Philosophy. 3 hours. Topics in ancient and medieval philosophy. May be repeated with different topics.

503 Seminar in Modern Philosophy. 3 hours. Philosophers or topics in modern philosophy. May be repeated with different topics.

504 Seminar in Contemporary Philosophy. 3 hours. Philosophers or topics in contemporary philosophy. May be repeated with different topics.

598 Humanities Essay. 3 hours.

599 Thesis Research and Writing. 6 hours.

599c Maintaining Matriculation. 1 to 6 hours.

The following 400-level Philosophy courses may be taken for graduate credit

400G Contemporary Philosophy. 3 hours.

401G Readings in Philosophy. 3 hours.

405G Existentialism. 3 hours.

420G Philosophy of History. 3 hours.

425G Twentieth Century British Philosophy. 3 hours.

432G Early Political Philosophy. 3 hours.

433G Modern Political Philosophy. 3 hours.

440G Metaphysics and Epistemology. 3 hours.

499G Research in Philosophy. 3 hours.

Graduate Courses in Religion

501 Graduate Seminar in Religious Studies. 3 hours. Specific issues in one of the areas of concentration. May be repeated for different topics.

510 Seminar in Religious Literature. 3 hours. Selected literature from one major religious tradition. May be repeated with different topic.

520 Seminar in Religious History. 3 hours. Significant topics, movements, or events in the development of one major religious tradition. May be repeated with different topic.

530 Seminar in Religious Thought. 3 hours. Selected topics or thinkers from one major religious tradition. May be repeated with different topic.

400G Judaism. 3 hours.

445G The Religious Traditions of Israel. 3 hours.

455G The Hindu Religious Tradition. 3 hours.

460G The Religion of Primitive Peoples. 3 hours.

465G The Buddhist Religious Tradition. 3 hours.

499G Research in Religion. 3 hours.

DEPARTMENT OF SOCIOLOGY AND SOCIAL WORK

GRISE HALL 101 (502) 745-3759

Jerry D. Cardwell, Head

Graduate Faculty

Professors: F. Baali, K. Dansereau, T. Dunn, J. Grimm, K. Kalab, P Wozniak

Associate Professors: L. Beck, E. Bohlander, J. Cardwell, J. Faine, J. Krenzin, J. Schock, S. Tuthill

Assistant Professor: A. Goetting

Degrees Offered: Master of Arts in Sociology, Master of Arts in Education (Sociology minor), Master of Arts in Education (Social Science Area major partially composed of sociology courses).

Master of Arts in Sociology

This program is designed to provide a sound methodological and theoretical foundation for graduate study beyond the master's level, to give thorough preparation for teaching at the college level, and also to provide necessary skills for careers in business or industry or in service organizations.

In addition to admission standards prescribed by the Graduate College, students entering this program must have completed eighteen undergraduate hours in sociology with an average of "B" or better. In circumstances where special competence has been developed through experiences other than traditional coursework or through extensive coursework in related disciplines, the departmental guidelines may be adjusted by approval of the de-

partment head in consultation with the department graduate committee.

Both Plan A (thesis) and Plan B (non-thesis) are available. Students who anticipate doctoral study are encouraged to pursue Plan A. Under either plan, students must take the department's *required core courses* as follows:

- Soc 511—Advanced General Sociology
- Soc 512—Sociological Theory
- Soc 513—Methods of Social Research
- Soc 514—Sociological Statistics

Under Plan A, thirty hours are required—24 hours of coursework and 6 hours of thesis credit. Twenty-one hours of 500-level coursework must be taken within the department. Up to nine hours may be taken at the 400G-level. With the approval of the student's advisor and the department head, six hours may be taken in a related field.

The oral examination and defense of thesis will serve as the final examination for students following Plan A.

Under Plan B, thirty-six hours are required. Twenty-four hours of 500-level coursework must be taken within the department of sociology. Up to twelve hours may be taken at the 400G-level. With the approval of the student's advisor and the department head, nine hours may be taken in a related field.

A written examination covering sociological theory and

research methods and their application to selected substantive courses taken in the graduate program will serve as the final examination for students following Plan B.

Beyond the 30 hour requirement under Plan A or the 36 hour requirement under Plan B, the student must demonstrate acquisition of an appropriate research tool. This requirement may be met by demonstrating either (1) reading proficiency in a foreign language appropriate to the major area or (2) mastery of appropriate research techniques.

Master of Arts in Education (Social Science Area major; Sociology minor)

This program provides graduate coursework in sociology for the public school teacher, and the student pursuing it must meet all requirements for the standard high school certificate. The student desiring an emphasis in sociology is advised to follow the Social Science Area major, which allows 9 to 12 hours in sociology and the remaining 6 to 9 hours in other social science departments. The student minoring in sociology may take a minimum of 12 hours or a maximum of 15 hours in sociology. In both cases, the remaining hours are taken in professional education courses.

Graduate Courses in Sociology

511 Advanced General Sociology. 3 hours.

Prerequisite: Six hours of Soc and consent of instructor.

Examination of the various sub-disciplines of the field and the most important developments in each. Also includes recent research and theory in the various sub-fields.

512 Sociological Theory. 3 hours.

Prerequisite: Six hours of Soc and consent of instructor.

Analysis of current sociological theories, including a survey of recent approaches to the construction and application of systematic theoretical models.

513 Methods of Social Research. 3 hours.

Prerequisite: Six hours of Soc and consent of instructor.

Covers concept definition, model building, and research design appropriate to problem and data. Includes a review of representative research studies to acquaint the sociology major with advanced social research methodology, techniques, and procedures.

514 Advanced Social Statistics. 3 hours.

Prerequisite: Basic statistics at the undergraduate level or consent of instructor.

Forms of statistical analysis commonly applied to sociological research data. Includes multiple and partial correlation and regression, one- and two-way analysis of variance, path and nonlinear function analysis, interaction effects, and introduction to factor analysis.

531 Deviant Behavior. 3 hours.

Prerequisite: Six hours of Soc or consent of instructor.

Types of deviant behavior with emphasis on criminality, delinquency, drug addiction, and alcoholism. Also covers current sociological theory and research in the field.

532 Criminology. 3 hours.

Prerequisite: Six hours of Soc or permission of instructor.

Theories of crime causation and current research in the areas of criminology and corrections—methodological research considerations.

541 Demography. 3 hours.

Prerequisite: Six hours of Soc or consent of instructor.

A review of the demographic processes such as mortality, fertility and migration, with emphasis on measurements, methods, and analytical techniques.

542 Community. 3 hours.

Prerequisite: Six hours of Soc or consent of instructor.

Ecological and social concepts of the community and its structure and function.

551 Sociology of the Family. 3 hours.

Prerequisite: Six hours of Soc or consent of instructor.

Analysis of the family institution; the impact of modern culture on the family.

552 Sociology of Economic Life. 3 hours.

Prerequisite: Six hours of Soc or consent of instructor.

The meaning of work and its social import in contemporary society, the integration of sociological theories of work, and the procedures used in the sociological analysis of work.

561 Society, Personality, and Behavior. 3 hours.

Prerequisite: Six hours of Soc or consent of instructor.

Inter-personal relations in different situations and from various perspectives. Attitudes, norms, and values; crucial factors in motivation and the actor's definition of the situation.

562 Formal Organizations. 3 hours.

Prerequisite: Six hours of Soc or consent of instructor.

The goals, internal structure, and environmental relations of large organizations. Emphasizes the emergence of bureaucracies, competing theoretical frameworks for viewing organizations, and the analysis of organization change.

571 Topical Seminar in Sociology. 3 hours.

Significant topics, issues, or develop-

ments in the discipline. May be repeated with a different topic.

599 Thesis Research and Writing. 6 hours.

599c Maintaining Matriculation. 1 to 6 hours.

The following 400-level courses may be taken for graduate credit

410G Socialization: Changes Through Life. 3 hours.

Theories and research techniques in socialization; findings that deal with changes over the life cycle.

420G Power in Society. 3 hours.

Prerequisite: Nine hours of Soc or consent of instructor.

Political behavior within a sociological perspective. Includes social cohesion, legitimacy, political socialization, and power structures.

422G Sociology of Work and Leisure. 3 hours.

Prerequisite: Graduate standing. Major types of work, workers, and work settings in the US and the patterns of leisure activity associated with them.

430G Punishment and Prisons. 3 hours.

Prerequisite: Soc 330 or consent of instructor.

Development of punishment and correctional programs, with emphasis on sociological considerations. Prison field trips required.

432G Sociology of Criminal Law. 3 hours.

Sociological research and theory focusing on social structural factors affecting the creation of criminal codes, the enforcement of criminal law, and the imposition of penal sanctions.

450G Occupations and Professions. 3 hours.

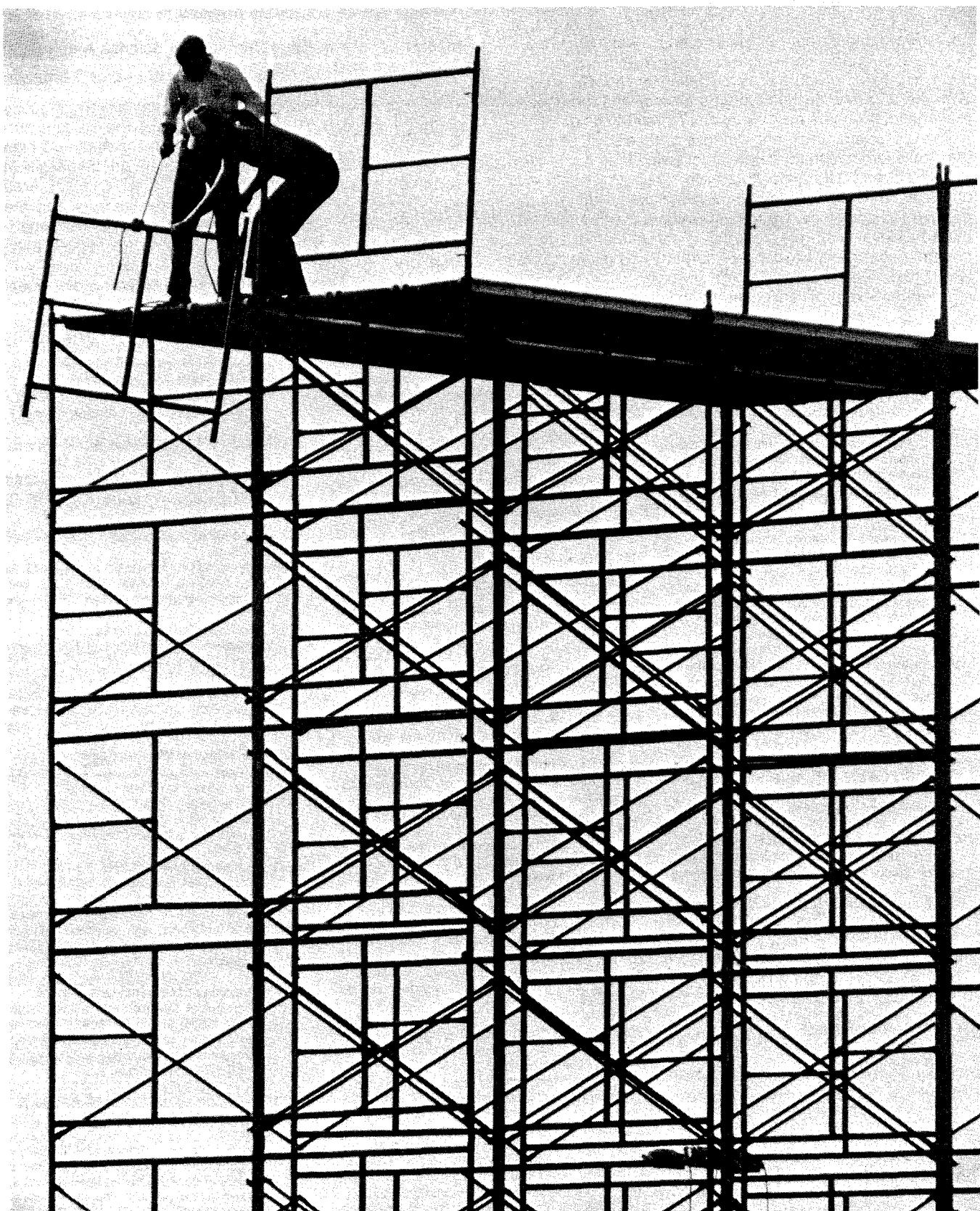
Prerequisite: Soc 346 or consent of instructor.

Occupation specialization and the nature of occupational organization. Examines a variety of occupations and professions to determine the place of work in the lives of their members.

452G Change and Modern Society. 3 hours.
Prerequisite: Nine hours of Soc or permission of instructor.
Nature and theories of social change and the factors affecting it. Emphasis on modernization and institutional changes in contemporary societies.

460G City Life. 3 hours.
Prerequisite: Six hours of Soc or consent of instructor.
The impact of city life on social actions, social relationships, and social institutions. Emphasis on the rise and significance of cities in American life.

495G Directed Study. 3 hours.
Prerequisite: Consent of the instructor and the department head.
Individual research in a specific area of sociology in close cooperation with supervising faculty.





FINLEY C. GRISE
HALL

COLLEGE OF BUSINESS ADMINISTRATION

Robert E. Nelson, Dean

DEPARTMENTS

Accounting

**Business-Distributive Education and
Office Administration**

Economics

Finance and Quantitative Business Analysis

Management and Marketing

DEGREE OFFERED

Master of Business Administration

MBA GRADUATE FACULTY

Professors:

**E. Busch, K. Cann, E. Evans, H. Fletcher,
J. Hall, C. Hays, S. Lile,
R. Nelson, R. Pethia, J. Philhours,
J. Rice, J. Wassom**

Associate Professors:

**M. Albin, W. Davis, L. Finley, C. Fost, B. Griffin,
A. Gudikunst, L. Lowe, J. Morgan, R. Pulsinelli,
R. Otto, C. Roberts**

Assistant Professors:

D. Fugate, R. Howsen, S. Jarrell

COLLEGE OF BUSINESS ADMINISTRATION

Robert Nelson, Dean
Grise Hall, Room 445
(502) 745-3893

Degree Offered: Master of Business Administration

This interdepartmental program is designed to provide professional education for successful careers at the higher levels of business enterprise. It is general in approach and emphasizes the relevance of economics, statistics, organizational theory, behavioral science, finance, marketing, and quantitative decision-making techniques.

Admission to the program requires the approval of the Graduate College and the College of Business Administration Graduate Committee. The Graduate Committee applies the minimum requirements as recommended by the American Assembly of Collegiate Schools of Business. These requirements are as follows:

(1) Graduate Management Admissions Test (GMAT) score of 450 or above and overall grade point average of 2.5 (4.0)

or

(2) GMAT score of 450 or above and junior-senior grade point average of 2.75 (4.0) or above

or

(3) A total of at least 950 points based on the formula $200 \times \text{undergraduate g.p.a.} + \text{GMAT score}$

or

(4) A total of at least 1000 points based on the formula $200 \times \text{junior-senior g.p.a.} + \text{GMAT score}$.

GMAT registration forms and information bulletins can be obtained by contacting the Graduate College, The College of Business Administration, or by writing to Educational Testing Service, Princeton, New Jersey 08540.

The MBA program is flexible to the extent that both business and non-business undergraduate degree holders can pursue the degree through individually tailored curricula.

The student holding an undergraduate degree in business must demonstrate competence in advanced statistics and mathematics through the calculus or take the appropriate courses recommended by the Graduate Director. If the undergraduate transcript indicates deficiencies in one or more functional areas of business administration, the student will be required to take foundation courses. In addition to the foundation work, 30 semester hours of approved graduate work in courses numbered above 519 are required.

The student holding a non-business undergraduate degree is required to demonstrate competence in advanced statistics, mathematics through calculus, and in the functional areas of business or take the appropriate courses at the foundation level before advancing to upper level grad-

uate coursework. The number of foundation courses needed is determined on an individual basis by the Graduate Director. Academic background is considered when the foundation requirements are specified. In addition to the foundation work, the non-business undergraduate is required to complete 30 semester hours of approved graduate work in courses numbered above 519.

Students must maintain a minimum GPA of 3.0 in all courses while pursuing the degree.

In the final semester of coursework, all candidates for the degree must pass a comprehensive examination covering the graduate core work.

The foundation sequence consists of the following courses:

Acct 500—Financial Accounting
Econ 504—Survey of Economic Theory
Econ 506—Statistical Research Methods
INFS 516—Business Computer Applications
Fin 509—Managerial Finance
Mkt 511—Managerial Marketing
Mgt 513—Management Dynamics
OBA 518—Management Science
QBA 519—Production Management

These courses may be waived by the Graduate Director for students whose transcripts show comparable work satisfactorily completed. All required foundation work must be completed before enrollment in the graduate core sequence.

The graduate core sequence consists of the following courses:

Acct 560—Managerial Accounting
Mgt 570—Business, Government, and Law
Mkt 520—Advanced Marketing
Mgt 575—Organization Theory
Econ 580—Applied Microeconomic Theory
Econ 585—Applied Macroeconomic Theory
Fin 530—Advanced Managerial Finance
QBA 535—Advanced Management Science
Mgt 573—International Business
Mgt 578—Administrative Policy and Strategy

The sequence in which prescribed courses should be taken is extremely important. All students are required to consult with the Graduate Director in planning each semester's coursework. The Graduate Director will supervise proper sequencing to the best advantage of each student. Mgt 578 must not be taken prior to the semester in which the student is to sit for the comprehensive written examination.

Graduate Courses

Courses are listed alphabetically by prefix. Frequency of offering is determined by the Graduate Director based on needs of students currently enrolled in the program.

Accounting (Acct)

500 Financial Accounting. 3 hours.

Concepts and principles in recording economic events and transactions and in preparing financial statements; data collection and summarization; effective use of such data.

550 Advanced Accounting Theory. 3 hours.

Prerequisites: Acct 401 and Acct 402 or their equivalents. A study of the development of financial accounting theory, including a critical appraisal of trends in its application.

555 Federal Taxation of Estates, Gifts, and Trusts. 3 hours.

Prerequisites: Acct 430 and Acct 431 or their equivalents. The unified transfer tax provisions of the internal revenue code; income taxation of estates and trusts; use of tax services in research.

560	Managerial Accounting. 3 hours. Prerequisite: Acct 500 or its equivalent. Control function in corporate enterprise; control concepts and techniques; control measures for production and marketing decisions.	The following 400-level courses may be taken for graduate credit.	ing, fiscal relations, and revenue sharing. Primarily for Master of Public Service students.
561	Management Accounting Practices. 3 hours. Prerequisites: Acct 310 or its equivalent. Application of managerial accounting concepts of planning, control, and decision making.	461G Report Writing. 3 hours. 462G Office Management. 3 hours. 463G Records Management. 3 hours. 471G Internship in Business and Office Education. 3 hours.	589 Seminar in Economic Theory. 3 hours. Intensive study of selected topics in theory.
562	Accounting Information Systems.	481G Advanced Business Communications. 3 hours.	590 Economic Development. 3 hours. Development of problems of the less progressive countries.
565	Auditing Standards and Applications.	Economics (Econ)	591 Advanced International Economics. 3 hours. Trade theory, tariffs, balance of payments, and capital transfers.
		504 Survey of Economic Theory. 3 hours. Theoretical principles of micro and macroeconomic analysis. Covers price, output decisions, resource allocation in a market economy, aggregate income, price level, etc.	592 Economic Research and Report Writing. 3 hours. Techniques of data collection, research, and writing on selected topics.
		505W Economics for Teachers. 3 hours. Basic concepts and topics dealing with the functioning of a market oriented economic system and the U.S. economy.	593 Directed Studies. 3 hours. Selected topics in economics.
	The following 400-level course may be taken for graduate credit.	506 Statistical Research Methods. 3 hours. Basic concepts of statistics applicable to managerial analysis of variance, regression analysis, time series, and forecasting.	The following 400-level courses may be taken for graduate credit.
	431G Federal Tax Accounting II. 3 hours.	580 Applied Microeconomic Theory. 3 hours. Prerequisites: Econ 504 and 506 or equivalents.	410G Seminar in Economics. 1 to 3 hours.
	Business-Distributive Education and Office Administration (BE) and (OA)	581 Survey of Public Financial Theory. 3 hours. Prerequisites: Econ 504 and 506 or equivalents.	420G Public Finance. 3 hours.
BE		582 Seminar in Economic History. 3 hours. Topics and research in American and European economic history.	430G Comparative Economic Organization. 3 hours.
	525 Touch Shorthand System. 3 hours. Includes theory coverage, teaching methods, grading standards, and development of the basic speed on the Stenograph.	583 Advanced Microeconomic Theory. 3 hours. Topics in the theory of consumer behavior, prices, markets, production, distribution, and welfare.	440G American Industry: Structure, Performance, and Policy. 3 hours.
	535 Survey of Distribution. 3 hours. Business activities involved in moving goods from production to consumption; emphasis on the role of marketing in the American economy.	584 Advanced Macroeconomic Theory. 3 hours. Topics in the theory of consumption, saving, investment, interest, money, and employment.	450G Central Banking Theory and Monetary Policy. 3 hours.
	540W Consumer Financial Problems. 3 hours. Basic elements of money management and the relationship of these elements to family units and corporate citizenship.	585 Applied Macroeconomic Theory. 3 hours. Prerequisites: Econ 504 and 506 or equivalents.	464G Introduction to Mathematical Economics. 3 hours.
	544 Current Problems in Business Education. 3 hours. Current problems and significant research. Also offered as independent study or workshop.	586 Monetary Theory. 3 hours. Classical, neoclassical Keynesian, and modern quantity theory of money and monetary policy.	465G Introduction to Econometrics. 3 hours.
	545 Principles of Business Education. 3 hours. Principles, practices, problems, and philosophy. Includes standards, guidance, curricula, and supervision at all educational levels.	587 Land Economics. 3 hours. Topics in land use, values, and natural resources.	470G Economic Growth and Development. 3 hours.
	575 Administration and Supervision in Business Education. 3 hours. Roles and functions of administration and supervision at all educational levels. Includes vocational education laws and their relationship to business education.	588 Public Sector Economics. 3 hours. Problems in government finance, budgeting.	474G Urban and Regional Economics. 3 hours.
OA			490G Economic Thought to 1870. 3 hours.
	550 Contemporary Office Administration Problems. 3 hours. Problem areas include systems analysis and design, personnel, environmental factors, and automation. Individual and group analysis and presentation of case problems and current literature.		491G Economic Thought Since 1870. 3 hours.
			Finance and Quantitative Business Analysis
			Finance (Fin)
			509 Managerial Finance. 3 hours. Nature and scope; topics in financial structure and the cost of capital.
			530 Advanced Managerial Finance. 3 hours. Prerequisite: Fin 509 or equivalent.
			Financing policies of corporate entities with emphasis on planning the capital structure, measuring and controlling costs of alternate sources of funds, dividend policy, and capital budgeting.
			Information Systems (INFS)
			516 Business Computer Applications. 3 hours. Introduction to electronic information processing. Overview of systems analysis and design, management information systems, and introduction to computer programming languages.

Quantitative Business Analysis (QBA)

518 Management Science. 3 hours. Prerequisites: Math 116 and Econ 206 or equivalents. Quantitative techniques as an aid to decision making. Decision theory, linear programming, queuing theory, and probabilistic models.

519 Production Management. 3 hours. Prerequisites: Infs 516, QBA 518, and Econ 506 or equivalents. Operations management planning and control in manufacturing and non-manufacturing systems.

535 Advanced Management Science. 3 hours. Prerequisite: QBA 519. Quantitative and computer-based techniques used as aids to managerial decision making. Emphasizes mathematical programming methods, stochastic models, and simulation.

Department of Marketing and Management

Management (Mgt)

513 Management Dynamics. 3 hours. An introduction to organizational analysis and to the understanding and management of behavior in organizations.

570 Business, Government, and Law. 3 hours. Development, implementation, and impact of major public policies toward business. Includes antitrust, consumer protection, conservation and environmental control, etc.

573 International Business. 3 hours. Prerequisites: Mkt 520 and Fin 530 or equivalents. Institutions, organizations, and procedures of international business. Emphasizes problems and decision-making techniques.

575 Organization Theory. 3 hours. Prerequisite: Mgt 513 or the equivalent. Contemporary theory and research on organizational structure and design that has relevance for practical problems of designing and managing organizations.

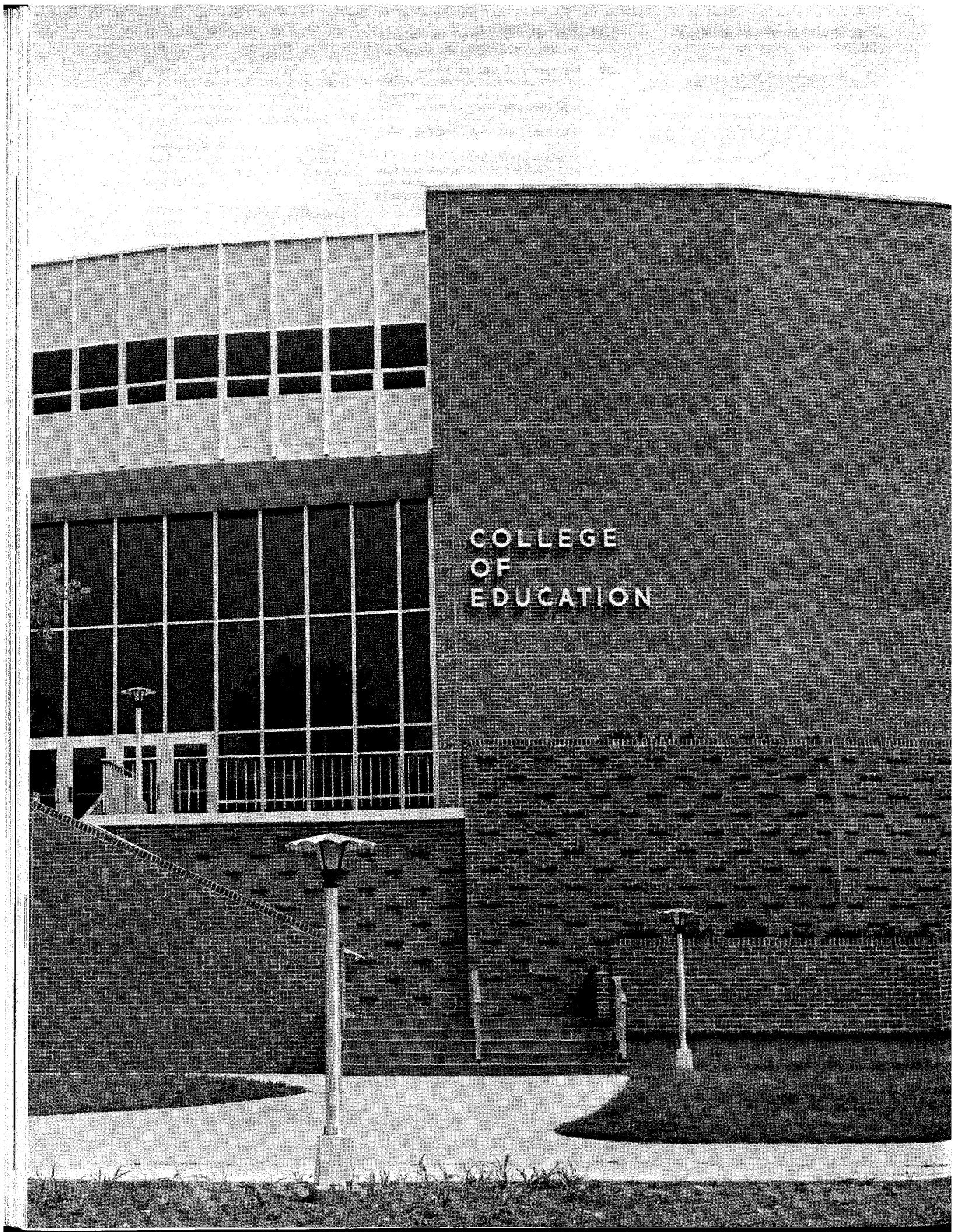
578 Administrative Policy and Strategy. 3 hours. Prerequisites: At least 21 hours in the MBA program including Acct 560, Fin 530, Mgt 575, Mkt 520, and QBA 519. A capstone course focusing on the formulation and implementation of corporate and business strategy.

Marketing (Mkt)

511 Managerial Marketing. 3 hours. Concepts, terms, and functions important to marketing, consumer behavior, product planning, pricing, and public policy implications of marketing strategies.

520 Advanced Marketing. 3 hours. Prerequisite: Mkt 511 or the equivalent. Marketing principles, policies, and operations; quantitative and behavioral sciences as related to the theory, philosophy, and operation of integrated marketing systems.





COLLEGE
OF
EDUCATION

COLLEGE OF EDUCATION

DEPARTMENTS

Business-Distributive Education and Office Administration

Center for Career and Vocational Teacher Education

Educational Leadership

Home Economics and Family Living

Physical Education and Recreation

Psychology

Teacher Education

DEGREES OFFERED

Master of Arts in Education

Master of Arts (Child Development and Family Living, Psychology)

Master of Science (Communication Disorders, Institutional and Home Environment, Library Science, Physical Education, Recreation)

Master of Public Service (Counseling)

Specialist in Education

JOINT DOCTORAL PROGRAM

(With the University of Kentucky)

Doctor of Education

Doctor of Philosophy

NON-DEGREE PROGRAMS

Rank II—Planned Fifth Year

Rank I—Teacher

Rank I—School Administration

Rank I—Guidance

Vocational Administrator Certification Program

BUSINESS-DISTRIBUTIVE EDUCATION AND OFFICE ADMINISTRATION

GRISE HALL
ROOM 500 (502) 745-3097

Hollie W. Sharpe, Head

Graduate Faculty

Professors: J. Harrington, P. Keck, C. Ray, H. Sharpe

Associate Professor: K. Utley

Degree Offered: Master of Arts in Education (Business-Distributive Education and Office Administration major or minor).

This program broadens the skills and the understandings of business teacher education through the application of research findings to business teaching.

The Department requires a minimum of 18 or a maximum of 21 hours for a major. A minimum of 12 or a maximum of 15 hours is required for a minor. The remaining courses will be taken in professional education, since teacher certification requirements must be met. Courses available are listed in the College of Business Administration.

The Center for Career and Vocational Teacher Education offers a flexible, individualized program leading to the Master of Arts in Education degree. This program is provided for individuals whose career interests are oriented toward an area of education which does not require public school (elementary or secondary) certification.

The center also offers a minor in distributive education under the Master of Arts in Education (Secondary) program and a 15-hour program leading to certification of administrators, supervisors, and coordinators of vocational education programs.

Master of Arts in Education (General)

Students must meet requirements for admission to the Graduate College and applicable departmental requirements.

A minimum of 30 semester hours of graduate level coursework is required for the non-thesis option; 24 hours of coursework is required for the thesis option. A final comprehensive examination must be satisfactorily completed.

The education major (15-21 hours) must include Ed Fnd 500—Research Methods and 3 hours selected from Ed Fnd 576, Ed Fnd 577, Psy 510, or Psy 511. The remaining courses (9-15 hours) may be selected, in consultation with the advisor, from adult and community education, higher education, vocational education, and/or other areas of education.

The distributed subject matter minor courses (9-15 hours) may be selected from one or more academic departments. These courses must be approved by a representative from the academic department(s) involved.

Master of Arts in Education (Vocational-Distributive Education minor)

This minor has the flexibility to meet the needs of individuals whose career interests require standard certification in distributive education. Available emphases include retail merchandising, marketing, sales promotion, and mid-management. Teacher/coordinators pursuing this minor must take 12-15 hours of coursework which supports the undergraduate major or teaching area. The courses may be chosen, with advisor approval, from the following and other appropriate courses:

Mgt 570, Mkt 520
BEOA 550, 540W, 535, 462G
Econ 582
HEFL 536, 533, 438G, 428G, 422G
Psy 570, 551, 520, 412G

Vocational Administrator Certificate

This program area is based on the prerequisite as stipulated by State certification regulations: the baccalaureate degree and preparation for a ten year certificate (provisional) for any one of the areas of vocational education authorized in the Kentucky State Plan for Vocational Education. Any individual planning to pursue this program should present a copy of the appropriate certificate to the department and advisor concerned.

A minimum of 15 hours must be completed in the areas of administration, supervision, research, and guidance—to

CENTER FOR CAREER AND VOCATIONAL TEACHER EDUCATION

COLLEGE OF EDUCATION BUILDING
ROOM 403 (502) 745-3441

Dwight Cline, Coordinator for Vocational Education

Graduate Faculty

Professors: N. Ehresman, C. Riley

Associate Professors: D. Cline, N. Schira

Degree Offered: Master of Arts in Education—General (with emphasis in vocational education); Master of Arts in Education (Distributive Education minor).

The Center also offers a program leading to certification in vocational education administration.

include at least one course from each area as follows:

Organization and Administration of Vocational Education

CVTE 581
CVTE 591

Administration and Supervision of Educational Personnel

Sch Ad 686
Sch Ad 585
CVTE 595

Program Planning, Research and Evaluation in Vocational Education

Ed Fnd 500
CVTE 592
CVTE 593
Ed Fnd 570W

Vocational Guidance, Industrial Psychology, Human Relations

Cns Ed. 656
CVTE 594

Graduate Courses in CVTE

578 Methods and Materials in Teaching Adult Education. 3 hours.

Methods and materials used in teaching adults; the nature of the adult learner; factors, that influence adult learning; special needs of the disadvantaged adult.

581 Organization and Administration of Occupational Education. 3 hours.

Organization, administration, and implementation of occupational education programs as an integral part of the educational system.

582 Organization and Administration of Community Education. 3 hours.

The community education concept; local community education programs; utilization of available resources to meet community needs.

591 The Administration, Management and Finance of Federal-State Occupational Education Programs. 3 hours.

Sources, standards, management functions, and procedures concerned with financing and operating federal-state occupational education programs.

592 Program Planning in Occupational Education. 3 hours.

Determining the need for occupational education programs, developing programs and curricula, evaluating existing programs, annual and long-range planning.

593 Planning and Equipping Occupational Education Facilities. 3 hours.

Determining facility needs, evaluating existing facilities, planning new construction, renovation and utilization of existing facilities.

594 Seminar on Leadership in Occupational Education. 3 hours.

Principles and practices of leadership as related to involving community resources in the development and operation of occupational education programs.

595 Supervised Practice in Administration of Occupational Education Programs. (Internship). 3 to 6 hours.

Supervised internship with emphasis on development of administrative leadership and management skills.

596 Occupational Education in the Community Junior College. 3 hours.

Organization and Administration of occupational education programs in the community junior college.

598V Organization and Supervision of Student Teachers in Vocational Education. 3 hours.

Philosophy, theory, and practices essential in an effective student teaching program. Examines both State and NCATE standards.

693 Programs of Continuing Education.

3 hours.
Philosophy, organization, and administration of continuing education programs. Organizations and agencies that provide continuing education opportunities for adults.

The following 400-level courses may be taken for graduate credit

404G Adult and Community Education: History and Contemporary Perspective. 3 hours.

Historical development, philosophical basis, and contemporary concerns of adult education; societal forces that dictate the need for life-long learning.

416G Coordination Techniques in Distributive Education. 3 hours.

Development of cooperative relationships with community resources; program development and initiation; selection and development of training stations; placement and supervision of students; and development and evaluation of training plans.

417G Curriculum Development for Distributive Education. 3 hours.

Identification and development of instructional units and teaching aids which integrate student needs and needs of the business community.

428G Techniques of Teaching Distributive Education. 3 hours.

Emphasizes problem solving; use of demonstrations, field trips, audio-visual materials and classroom equipment; and utilization of facilities in local business and industry.

DEPARTMENT OF EDUCATIONAL LEADERSHIP

**COLLEGE OF EDUCATION BUILDING
ROOM 426 (502) 745-4953**

William M. Traugott, Head

Graduate Faculty

Professors: B. Broach, S. Brumfield, E. Burkeen, V. Christenson, P. Constans, N. Deeb, E. Harryman, C. Kreisler, D. Mitchell, F. Robinson, J. Sandefur, S. Schnacke, R. Schrader, D. Shannon, V. Sheeley, W. Traugott, J. Wilder

Associate Professors: W. Ashley, D. Reeves, T. Updike

Assistant Professors: S. House, D. Smith, F. Stickle

Degrees Offered: Master of Arts in Education (School Counseling, Student Personnel Services in Higher Education, School Business Administration); Master of Public Service (Counseling Option); Specialist in Education (Counseling, School Administration).

Additional program specialization areas are available in elementary school administration, secondary school administration, pupil personnel administration, supervision of instruction, and general school administration (superintendent).

The Department of Educational Leadership offers programs designed to prepare school personnel for effective leadership in the elementary and secondary schools. The department also offers programs of preparation for school and professional personnel in the areas of guidance, counseling, and personnel services. The curricula meets professional certification standards in school administration, school counseling, and school supervision. The department also provides education foundations courses which give professional educators a greater understanding of their roles and the function of educational institutions in society.

Master of Arts in Education (School Counseling)

This program leads to the master's degree and provisional certification for school counselors. Applicants must meet Graduate College requirements for admission and must gain admission to the department.

All students shall complete Ed Fnd 500—Research Methods and one additional foundations course selected from Ed Fnd 577, Sec Ed 580, or Ed Fnd 576. In addition to the 6 hours of educational foundations, the following counselor education courses must be taken:

- A. Elementary School Counselor
 - 550 Introduction to Guidance
 - 552 Individual and Group Analysis
 - 554 Group Guidance
 - 558 Counseling Theory and Practice
 - 560 Counseling Practicum

(Practicum experience must be at the elementary level)
Courses for the 9-hour subject matter minor will be taken in the area of psychological, physical, and social development of children.

- B. Secondary School Counselor
 - 550 Introduction to Guidance
 - 552 Individual and Group Analysis
 - * 556 Informational Services
 - 560 Counseling Practicum

(Practicum experience must be at the secondary level)

*In special cases, Cns Ed 554 may be substituted.

Courses for the 9-hour minor will be taken in related fields other than professional education.

Master of Arts in Education (Student Personnel Services)

Applicants to this program must meet Graduate College requirements for admission. Course requirements are as follows:

- A. Professional Education (6 hours)
 - Ed Fnd 500—Research Methods (required) and three hours from Ed Fnd 576, 577, Sec Ed 580, or Hi Ed 675, Hi Ed 685, Psy 510, or Psy 511
- B. Student Personnel Services major (15-18 hours)
 - Required courses:
 - 664 Introduction to Student Personnel Services
 - 668 Special Topics in Student Personnel Services
 - or
 - 674 Seminar in Student Personnel Services
 - 560H Practicum in Student Personnel Services
- Elective courses:
 - 550 Introduction to Guidance
 - 552 Individual and Group Analysis
 - 554 Group Guidance
 - 556 Informational Services
 - 558 Counseling Theory and Practice or other counselor education electives.

- C. Distributed minor (6-9 hours)

Courses to be selected from related areas such as: psychology, sociology, government, home economics and family living, economics, and health and safety or others as appropriate.

Master of Public Service (Counseling Option)

This interdisciplinary program consists of offerings from several departments and is designed to prepare individuals

for governmental positions which require administrative training as well as knowledge of the particular areas they are to serve.

All candidates for the Master of Public Service degree (regardless of the option chosen) are required to complete a minimum of 9 hours in the core—3 semester hours from category A and 6 semester hours from category B as follows:

- A. Organization theory courses—3 hours
 - Govt 540 Seminar in Public Administration
 - Psy 551 Social Psychology of Organizations
 - Soc 562 Formal Organizations
 - Mgt 575 Organization Theory
- B. Socio-economic and political factor courses—6 hours
 - Geog 484G Planning: Theory and Application
 - Govt 511 Seminar in State and Local Government
 - Econ 550 Public Sector Economics
 - Soc 542 Community

Required Counselor Education Courses

- 550 Introduction to Guidance or
- 561 Introduction to Rehabilitation Counseling
- 552 Individual and Group Analysis
- 558 Counseling Theory and Practice
- 560 Counseling Practicum

The remaining 9 hours may be selected from

- Ed Fnd 500 Research Methods
- Ed Fnd 501 Educational Statistics
- Cns Ed 554 Group Guidance
- Cns Ed 556 Informational Services
- Cns Ed 650 Utilization of Community Resources
- Cns Ed 656 Seminar in Vocational Guidance and Occupational Adj
- Hi Ed 675 Higher Education in America

*Note: Other counselor education courses may be selected.

Specialist in Education (Counselor Education major)

Applicants desiring to pursue this program must meet Graduate College requirements for admission and must also be admitted to the department. A personal interview is required for reviewing professional and educational background and other pertinent data. A departmental admissions committee will review the information and make final recommendations regarding the applicant's eligibility.

Three major emphases are available: school counseling, public service counseling and personnel work, and student personnel services in higher education.

This degree requires a minimum of 30 semester hours of graduate coursework beyond the master's degree. Specific courses and field experiences are provided to meet individual needs. Coursework is generally taken from three areas:

Foundations Core—education and research, 6 hours.

Major Emphasis—school counseling, public service counseling, or student personnel services in higher education, 15-18 hours.

Cognate—psychology, sociology, home economics and family living and/or related areas, 6-12 hours.

The student's committee directs the coursework and required research project and administers a final oral examination.

Graduate Courses in Counselor Education

550	Introduction to Guidance. 3 hours. Philosophy, organization, administration, and functions of guidance and personnel services.	652	Research in Guidance and Counseling. 1 to 3 hours. Research problems relating to the organization and administration of guidance programs. May be repeated once with a different topic.	661	Seminar in Disability and Rehabilitation Counseling. 3 hours. Psychological, physiological, and sociological impacts of congenital and traumatic disabilities, with emphasis on the rehabilitation counselor's role.
552	Individual and Group Analysis. 3 hours. Methods, techniques, and instruments used in assessing and evaluating individuals and groups: administering, scoring, and interpreting both objective and subjective instruments: survey of research design, statistics, and computer utilization.	654	Educational and Intellectual Analysis of Children and Adults. 3 hours. Administration and interpretation of standard mental and aptitude tests as tools of educational and occupational guidance.	662	Advanced Counseling Practicum. 3 to 6 hours. Supervised, on-campus experiences in counseling elementary, junior and senior high school students, and their parents. Emphasizes educational, vocational, and social-personal planning and problems. Also includes experience in providing consultative services to teachers, principals, agency workers, and other professional people who work with children.
554	Group Guidance. 3 hours. Dynamics and processes within group structures; experiences in the formation of groups and their utilization in group counseling procedures and in guidance aspects of career development and vocational choice.	655	Seminar in Guidance Services in the Elementary School. 3 hours. Determining, instituting, and maintaining guidance services that are congruent with the philosophy, curricula, and student patterns within the elementary school.	663	Counseling the Exceptional Child and Parent. 3 hours. General concepts of exceptionality, the needs of and effective counseling techniques for the exceptional child; referral, resources, staffing and coordination efforts of the counselor; the needs of and effective counseling techniques for the parent of the exceptional child.
556	Informational Services. 3 hours. Sources, types and uses of educational and occupational information applicable to a program of developmental guidance and counseling.	656	Seminar in Vocational Guidance and Occupational Adjustment. 3 hours. Vocational guidance and occupational adjustment and its application at all educational levels as well as to business, industry, and government.	664	Introduction to Student Personnel Services in Higher Education. 3 hours. History, philosophy, and development of student services. Includes testing and counseling, financial aids, housing, admissions and records, placement, etc.
558	Counseling Theory and Practice. 3 hours. Major contemporary theories of counseling; implementation of the various methods and procedures followed in individual and group counseling; laboratory demonstration and participation.	657	Readings in Contemporary Counseling. 3 hours. Significant books and research articles related to counseling theory, theory application, and innovative techniques.	668	Special Topics in Student Personnel Services in Higher Education. 3 hours.
560	Counseling Practicum. 3 hours. Supervised experiences in a setting related to the area in which the individual plans to seek certification or employment.	658	Seminar in Guidance and Counseling. 3 hours. Presentation and discussion of research in guidance and counseling. Emphasizes theoretical and practical criticism of relevant studies in the field.	669	Special Topics in Counseling and Guidance. 3 hours.
561	Introduction to Rehabilitation Counseling. 3 hours. Basic counseling procedures appropriate to rehabilitation; history, settings and functions of the rehabilitation counselor.	659	Theories of Career Development and Vocational Choice. 3 hours. Major theories of vocational development as they relate to educational progress. Topics include vocational choice, development of interests, values and attitudes as related to work, etc.	674	Seminar in Student Personnel Services in Higher Education. 3 hours. Philosophy, organization, and administration of and current practices in student personnel work.
650	Utilization of Community Resources in Guidance. 3 hours. Individual community surveys of all resources used in guidance and counseling; utilization of these resources in choice of educational program and in career selection.	660	Organization and Administration of Guidance Services. 3 hours. Effective guidance services in elementary and secondary schools. Basic principles and postulates underlying the justification of guidance services, staffing, facilities, budget, etc.	699	Specialist Project. 6 hours.
				699c	Maintaining Matriculation 1 to 6 hours.

Master of Arts in Education (School Business Administration)

Required courses in education are 577—Philosophy of Education or 576—Social Foundations of Education, 585—Fundamentals of School Administration, 677—School Law, 676—School Finance, 678—School Building, and 500—Research Methods. Additional courses or demonstrated competency are required in the following: office and personnel management, taxation, business law, school business management, accounting, data processing, public finance.

Provisional certification in school business administration is based on completion of the above coursework (18 hours) and two years successful experience in government, business, or education. Standard certification is based on completion of the master's degree and three years experience as a school business administrator.

Specialist in Education (School Administration)

This advanced professional degree requires a minimum of 36 semester hours of graduate credit beyond the master's degree. It is designed to increase the competency of educational administrators and to enable them to meet specific goals and objectives in their areas of specialization.

Applicants desiring to pursue a specialist degree program must complete Graduate College and departmental requirements for admission. The student's assigned committee reviews the academic program and directs the required research study or project.

Five major emphases are available as follows: elementary school administration, secondary school administration, supervision and curriculum, school business administration, and general school administration.

Coursework is within three areas: Foundations Core—

research, historical or sociological foundations of education, fundamentals of school administration, Introduction to Guidance (6 hours minimum); Cognate—sociology, psychology, economics, business administration, guidance, exceptional child education, higher education, computer technology or other related areas, (6 hours minimum); Major Emphasis—18 hour minimum including research study or project. Elective courses shall be selected in a manner to insure that 12 semester hours of non-professional education is included within an individual's total graduate work.

JOINT-DOCTORAL PROGRAM

(With the University of Kentucky)

Persons who have completed, or are completing, a master's degree in education and who have adequate qualifications may petition to enter the joint program leading to the Ed.D or Ph.D. in Education from the University of Kentucky. In addition, admission standards of the doctoral program of the UK College of Education must be met.

Application is filed with the Graduate College of Western Kentucky University. The applicant's qualifications are evaluated by a screening committee, which makes an appropriate recommendation to the University of Kentucky.

Each student admitted to the program is appointed an advisory committee, known as the Special Doctoral Committee, which represents both participating institutions. Normally the student will continue in residence at Western Kentucky University for one school year (maximum 24 semester hours) after being admitted to the joint program. Variations as to period of residence at each institution may be approved by the student's committee. For further information, contact the Dean of the Graduate College, Western Kentucky University.

NON-DEGREE PROGRAMS

Students wishing to pursue one of the following programs must make application to the Graduate College. Upon completion of the program, individuals must contact the certification officer in the College of Education, who then certifies to the State Department of Education that rank requirements have been met.

Rank II Non-Degree Programs

Western Kentucky University provides the planned Fifth Year Program for students who do not meet the admission requirements of a degree program or who want greater flexibility with regard to time allowed for completion, transfer limitations, and selection of courses than is permitted in a degree program.

Although the Fifth Year Program does not result in the master's degree nor standard certification, it does result in Rank II salary classification in Kentucky, renews the provisional certificate, and permits entry into a Rank I teacher program.

Guidelines

1. Thirty-two (32) hours of upper division undergraduate and graduate courses must be completed.
2. At least 18 of the required hours must be taken at Western Kentucky University.
3. A grade point average no less than that for undergraduate certification (2.5) shall be required.

4. A minimum of 12 hours must be in professional education and a minimum of 12 hours in cognate areas.
5. At least 12 hours must be in graduate level courses.
6. Coursework taken by correspondence is not accepted.

Rank II (Elementary Education)

The following courses and their distribution would meet requirements for a Fifth Year Program for renewal of the provisional elementary teaching certificate and Rank II equivalency.

Six semester hours from

El Ed 503 and Rdg Ed 519 or 523

Nine semester hours from

El Ed 505, 506, 507, 544, 545, 570W, Ear Ed 508, 509

Three to six semester hours from

Exc Ed 516, Cns Ed 550, Ed Fnd 576, 577, Sch Ad 585, 598

Twelve to fifteen semester hours from

Psy 510, 511, 519, 520, 521, 540, LME 410G, 411G, 445G, 447G, 518, HI Sft 465G, 469G, HEFL 491G, 498G, 576, 577, Ind Ed 465G, Ph Ast 410G, Soc 551, Exc. Ed 481G

Each 32-hour program must be individually planned in consultation with the student's advisor.

Rank II (Secondary Education)

The following courses and their distribution would meet requirements for a Fifth Year Program for renewal of the provisional high school teaching certificate and Rank II equivalency.

Three hours

Sec Ed 580

Three to nine semester hours from

Sec Ed 444G, 455G, 528-542, 543, 544, 545, 570W, 571

Six to nine semester hours from

Sec Ed 445G, Cns Ed 550, 554, Ed Fnd 576, 577, Sch Ad 585, 598, Rdg 519

Twelve to twenty-one semester hours from the major or minor, or area of preparation, or in supporting courses from disciplines as approved by this institution.

Each 32-hour program must be individually planned in consultation with the student's advisor.

Rank I Programs

Western Kentucky University offers the following Rank I programs in accordance with the minimum regulations prescribed by the Kentucky State Board of Education:

1. Rank I—Teacher (program leading to Rank I qualification for teachers)
2. Rank I—Standard Guidance (leading to standard certification in guidance)
3. Rank I—School Administration (the professional certificate in administration and supervision endorsed for specific administrative positions)

General Guidelines:

1. Rank I classification shall require the completion of either (a) 30 semester hours approved graduate level credit in addition to the requirements for a Rank II classification, or (b) 60 semester hours approved graduate level credit including a master's degree.

2. The student's program shall be planned in consultation with the advisor and shall be related to the professional needs of the individual.
3. A minimum of 15 semester hours must be in courses open only to graduate students.
4. The student shall maintain a B standing, and no credit shall be given for a course grade lower than C.
5. At least 15 of the required hours shall be taken at Western Kentucky University. The remaining hours may be taken, upon approval of the college advisor and the Graduate College, at other institutions provided the grade is A or B.

A minimum of 24 hours of the total 60 (62 when based upon Rank II classification) must be in academic work apart from professional education. These hours shall be in the candidate's major or minor, or area of preparation, or in supporting courses from other disciplines as approved by this institution.

Rank I—Teacher's Program

Rank I (Elementary Education)

The following courses and their distribution would meet requirements for Rank I classification. The student must complete a total of sixty semester hours of graduate credit including the master's degree or thirty semester hours of graduate level credit above the Rank II classification.

Twelve semester hours

El Ed 603, 604, 605, Exc Ed 516

Three to six semester hours from

El Ed 505, 506, 507, 544, 545, 570W, Ear Ed 508, 509, Rdg Ed 519, 523

Three semester hours from

Cns Ed 550, Ed Fnd 576, 577, Sch Ad 677, 585, 598

Twelve semester hours from

Psy 510, 511, 519, 520, 521, 540, LME 410G, 411G, 445G, 447G, 518, HI Sft 465G, 469G, HEFL 491G, 498G, 576, 577, Ind Ed 465G, Ph Ast 410G, Soc 551, Exc Ed 481G

Each program must be individually planned in consultation with the student's advisor.

Rank I (Secondary Education)

The following courses and their distribution would meet requirements for Rank I classification. The student must complete a total of sixty semester hours of graduate credit including the master's degree or thirty semester hours of graduate level credit above the Rank II classification.

Nine semester hours

Exc Ed 516, Sec Ed 604, 605

Three to six semester hours from

Sec Ed 444G, 455G, 528-542, 543, 544, 545, 570W, 571

Three to six semester hours from

El Ed 445G, Cns Ed 550, 554, Ed Fnd 576, 577, Sch Ad 585, 598, 677, Rdg Ed 519

Twelve to fifteen semester hours from the major or minor, or area of preparation, or in supporting courses from disciplines as approved by this institution.

Each program must be individually planned in consultation with the student's advisor.

Rank I—Guidance Program

The Rank I guidance program, which leads to the standard certificate in guidance and counseling, is designed to provide

additional preparation and competency for school counselor personnel. The planned program requires a minimum of sixty hours including a master's degree and one year's experience as a school counselor.

A certified teacher with a master's degree outside guidance must complete at least fifteen semester hours in counseling coursework toward provisional guidance as a part of the Rank I program. An additional fifteen semester hours of counseling coursework are required for the standard certificate in guidance and counseling, along with the minimal one year's experience as a school counselor.

The 60-hour program leading to the standard guidance certificate must be individually planned in consultation with the student's advisor and must include the following:

Counselor education - 30 hours

Behavioral sciences/related fields - 12 hours

Educational research - 3 hours

Counseling electives, educational foundations, and/or other selected areas - 15 hours

Rank I—School Administration

A sixty-hour planned program, including the master's degree and standard teaching certificate, is required. Of the total 60 hours (Master's and Rank I), at least 12 hours must be taken in the behavioral sciences or subject matter fields other than professional education. Application for admission should be made to the Graduate College and the department. Programs are designed to include administrative certification requirements for one or more of the following leadership positions: elementary principal, secondary principal, director of pupil personnel, supervisor, superintendent.

Certification for School Principal Endorsement

(Elementary or Secondary)

The professional certificate for school administration and supervision may be endorsed for either the elementary or the secondary principalship when the following conditions have been met:

1. Completion of requirements for the standard elementary teaching certificate (for elementary principal endorsement) or the standard secondary teaching certificate (for secondary principal endorsement).
2. Three years of successful teaching experience.
3. Completion of a minimum of 45 semester hours of graduate credit including the master's degree. Within these total hours the student must complete the following required courses in education: Ed Fnd 500, Ed Fnd 577, or 576, Psy 510 or 511, Cns Ed 660 or 550, Sch Adm 585.
4. Satisfactory score on the Subject (Advanced) Test of the GRE.
5. Completion of departmentally approved electives with emphasis in elementary education (for elementary principal endorsement), or secondary education (for secondary principal endorsement) to meet certification requirements and to provide administrative competencies.

Certification for Director of Pupil Personnel Endorsement

The professional certificate in school administration and

supervision may be endorsed for the position of director of pupil personnel when the following conditions have been met:

1. Completion of the requirements for either the standard elementary certificate or the standard high school certificate.
2. Three years of successful teaching experience.
3. Satisfactory score on the Subject (Advanced) Test of the GRE.
4. Completion of a minimum of 45 semester hours of graduate credit including the master's degree. Within these total hours the student must complete the following required courses in education:
Ed Fnd 500, Ed Fnd 577 or 576, Psy 510 or 511, Cns Ed 550, Sch Adm 583 and 585.

Certification for Supervisor Endorsement

The professional certificate in school administration and supervision may be endorsed for the position of supervisor of instruction when the following conditions have been met:

1. Completion of the requirements for either the standard elementary certificate or the standard high school certificate.
2. Three years of successful teaching experience.
3. Completion of a minimum of 45 semester hours of graduate credit including the master's degree. Within these total hours, the student must complete the following required courses in education:
Ed Fnd 500, Ed Fnd 577 or 576, Psy 510 or 511, Sch Adm 585, Rdg Ed 519.
4. Satisfactory score on the Subject (Advanced) Test of the GRE.

5. Completion of departmentally approved electives selected from curriculum, supervision, administration, and/or cognate areas to meet certification requirements and to provide the necessary competencies.

Certification for Superintendent Endorsement

The professional certificate for school administration and supervision may be endorsed for the position of school superintendent when the following conditions have been met:

1. Completion of the requirements for either the standard elementary certificate or the standard high school certificate.
2. Completion of Rank I in School Administration.
3. Satisfactory score on the Subject (Advanced) Test of the GRE.
4. Certification for superintendent as a general rule should include requirements for principal or supervisor.
5. Five years of successful experience in teaching or administration.
6. Completion of the following required courses in education:
676—School Finance
677—School Law
678—School Plant Administration
7. Completion of departmentally approved electives selected from professional education, behavioral sciences, and/or cognate areas to meet certification requirements and provide administrative competencies.

Graduate Courses in Educational Foundations

500 Research Methods. 3 hours.
Includes theory of research, experimental design, bibliographical and data gathering techniques, and interpretation of results.

501 Educational Statistics. 3 hours.
Graphic and tabular arrangement of data, measures of central tendency and of relationship.

548 Research in Curriculum and Instruction. 1 to 3 hours.
Research in elementary instructional problems in reading, mathematics, science, social studies, English, and in elementary and secondary curriculum.

570W Workshops in Education. 1 to 3 hours.
Special short courses on educational problems.

576 Social Foundations of Education. 3 hours.
Selected problems in American society, their impact on the educational system, and the possible role of that system in resolving such problems.

577 Philosophy of Education. 3 hours.
The relationship between philosophy and education. Emphasizes the development of an effective individual philosophy of education.

675 Higher Education in America. 3 hours.
History, purpose, philosophy, organization, curriculum, student personnel serv-

ices, financial services, and trends of the American system of higher education.

685 Academic Problems in Higher Education. 3 hours.
Prerequisite: Hi Ed 675 or permission of instructor.
Major problem areas of academic administration with emphasis on issues and procedures of college and university level curricular development.

Graduate Courses in School Administration

583 Accounting for Pupil Personnel. 3 hours.
Emphasizes the responsibilities of directors of pupil personnel, problems of personnel accounting, and records and reports related to the Minimum Foundation Program.

585 Fundamentals of School Administration. 3 hours.
Organization and administration of American schools. Principles of effective leadership and the roles and responsibilities of administrative—supervisory positions.

588 School Business Management. 3 hours.
Effective operation of the fiscal and business aspects of school administration in the educational program.

590 Administration of School Personnel. 3 hours.
Allocation of human resources to accom-

plish the purposes of the school organization.

596 Readings in Education. 1 to 3 hours.
Prerequisite: Permission of major professor.
Reading and research in an area of individual interest. Supervised by the major professor.

597 Problems in Administration and Supervision. 1 to 3 hours.
Prerequisite: Permission of instructor.
Identifying and attempting to solve administrative problems in the local school setting.

598 The Organization and Supervision of Student Teaching. 3 hours.
The philosophy, theory, and practices essential for an effective student teaching program. Covers State and NCATE standards for teacher education, personal and professional relationships, and evaluation of student teachers.

601 Statistical Techniques for Experimental Designs in Education. 3 hours.
Parametric and non-parametric statistical techniques applies to experimental and quasi-experimental research designs in education.

676 Public School Finance. 3 hours.
School budgets and accounting for school money; unit costs and cost accounting; accounting for school property; insurance business procedure and office practice.

677 School Law. 3 hours.

	Clinical study of existing school code: judicial decision; administrative problems and school code.	686	Principles of Supervision. 3 hours. The instructional aspect of school administration: organization, problems, principles, and techniques of improving in-service training for teachers.	695	School Surveys. 3 hours. Gathering and interpreting data; evaluating educational programs and facilities; predicting future enrollment; and presenting results to school authorities.
678	School Plant Administration. 3 hours. Prerequisite: Sch Ad 585. Educational needs and building planning; architect service; standards of construction; building surveys.	688	Evaluating the Elementary School. 3 hours. Techniques for and approaches to evaluating the school for accreditation purposes as well as for general improvement of programs. Designed specifically for prospective administrative and/or instructional leadership personnel.	696	Advanced Theory in Education Administration. 3 hours. Prerequisite: Permission of instructor. Theoretical approaches to the study of education administration and leadership.
679	Seminar in Foundations of Education. 3 hours. The superintendency.	691	Elementary School Organization and Administration. 3 hours. Prerequisite: Sch Ad 585. Problems of instruction; classification, promotion, and guidance of pupils; custodial services, and relationships with patrons and community.	697	Research in Administration and Supervision. 1 to 3 hours. Special projects in administration and supervision.
681	Secondary School Curriculum. 3 hours. Critical issues and suggested means of resolving these issues for an improved educational program.	692	Secondary School Organization and Administration. 3 hours. Programs of instruction; classification, promotion, and guidance of pupils; relationship of principal to non-professional personnel; and relationship with patrons and community.	698	Practicum in Administration and Supervision. 3 to 6 hours. Prerequisite: Permission of instructor. Internship or other field experience for administrators and supervisors.
682	School-Community Relations. 3 hours. Background, need, and techniques for establishing a wholesome working relationship with laymen, with emphasis on their involvement in school programs.	694	Seminar in Educational Administration. 3 hours. Emphasis on current practices in administering special programs.	699	Specialist Project. 6 hours.
683	Seminar in Curriculum Development. 3 hours. Examination of factors influencing curriculum development.			699c	Maintaining Matriculation. 1 to 6 hours.
684	Supervision of Elementary School Subjects. 3 hours. Applying principles of supervision to problems of instruction in the elementary grades.				

DEPARTMENT OF HOME ECONOMICS AND FAMILY LIVING

ACADEMIC COMPLEX, CANON WING
ROOM 303 (502) 745-4352

William Floyd, Head

Graduate Faculty

Professors: S. Clark, L. Ehrcke, W. Floyd, L. Fong, D. Hayden, R. Hedges, M. Jenkins, V. Moore

Associate Professors: V. Atkins, B. Fulwood, S. Gibbs, J. Rasdall

Assistant Professor: R. Mason

Degrees Offered: Master of Arts in Child Development and Family Living, Master of Arts in Education (Home Economics Education major and minor), Master of Science in Institutional and Home Environment (Interior Design and Housing or Textiles and Clothing), Specialist in Education (Vocational Home Economics major).

Master of Arts in Child Development and Family Living

This degree is considered an intermediate step preparatory to entry into a doctoral program leading to college teaching, therapeutic activity and/or research. In addition to Graduate College requirements, the student must pres-

ent an undergraduate record of B in the behavioral sciences and related disciplines. Applicants who do not have the B average but whose score (verbal and quantitative combined) on the General Test of the Graduate Record Examination is at least 900 may be given provisional admission.

The major requires 24 hours, and the remaining hours of the total of 30 must come from closely related studies in counselor education, psychology, or sociology. The 24 hours in the major are HEFL 491G, 576, 577, 578, 579, 580, 599 (six hours) or six hours of restricted electives in lieu of thesis. Cognate studies must be approved by the advisor.

The research tool requirement may be met by (1) demonstrating ability to read subject material in either French or German, (2) completing specialized study in human biology and genetics, or (3) completing additional work in statistics and research methodology.

Master of Arts in Education (Home Economics Education major or minor)

This program is planned for teachers pursuing the standard high school certificate. Applicants must have an undergraduate area of concentration in home economics education. Required courses for the major are HEFL 572, 573, 574, and 9-12 hours of HEFL electives to be approved by the advisor. Required for the education minor are Educ 540 and 500. The HEFL minor requires 12-15 hours along with 15-18 hours in professional education.

Master of Science in Institutional and Home Environment

This degree is designed to prepare individuals for positions requiring specialization at the master's level or to provide an adequate foundation for study beyond the mas-

ter's degree. Two options are available: Interior Design and Housing or Textiles and Clothing.

Option in Interior Design and Housing

Applicants must be eligible for admission to the Graduate College and must submit a portfolio representative of their work. Decisions in regard to acceptability of coursework for admission, deficiencies, and program planning will be made by the graduate faculty in interior design and housing.

The required 30 hours of graduate work, with at least 15 hours at the 500-level or above, must include HEFL 480G, 481G, 536, and 537; 6 hours of HEFL elective courses, at least 3 hours of which must be at the 500-level or above; and 6 hours in an approved cognate field. For Plan A, a thesis must be submitted in a specific area of interior design and housing. For Plan B, 6 hours of approved coursework, at least 3 hours of which must be at the 500-level or above, must be taken in lieu of the thesis.

The research tool requirement usually involves demonstration of the ability to read a foreign language or specialized study in statistics and research methods or computer utilization.

Graduate Courses in Home Economics and Family Living

520 Seminar in Interior Design and Housing. 3 hours.

Developments, trends, and designers in the fields of interior design, equipment, and housing.

521 Interior Ergonomics I. 3 hours.

Sociological and psychological factors in interior design—separately, in relationship to each other, and in relationship to other disciplines.

522 Interior Ergonomics II. 3 hours.

Cultural and anthropometric literature related to interior design; interrelationships between culture and anthropometrics.

531 Cultural Patterns of Dress. 3 hours.

In-depth analysis of literature and research related to cultural aspects of clothing. Specific cultural emphasis will vary.

533 Developing Fashion Merchandising Programs. 3 hours.

Principles, problems, and practices of curriculum, field experiences, and extended classroom activities related to fashion merchandising.

535 Textile Analysis and Interpretation. 3 hours.

Prerequisites: HEFL 435 and chemistry. Qualitative and quantitative techniques for physical and chemical analysis of textiles. Planning and conducting textile analyses and evaluating resulting data.

536 Seminar in Institutional and Home Environment. 3 hours.

Technological, cultural, and educational developments in institutional and home environment. Opportunity to pursue individual interest in specialized areas, e.g., textiles, clothing, merchandising, interior design, housing, etc.

Option in Textiles and Clothing

Applicants must be eligible for admission to the Graduate College and should have the equivalent of an undergraduate minor (18 hours) in textiles and clothing as well as basic courses in psychology, sociology, and chemistry. Decisions in regard to acceptability of coursework for admission, deficiencies, and program planning will be made by the graduate faculty in textiles and clothing.

The required 30 hours of graduate work, with at least 15 hours at the 500-level or above, must include HEFL 536 and 537; 12 hours of HEFL elective courses, at least 3 of which must be at the 500-level or above; and 6 hours in an approved cognate field. For Plan A, a thesis must be submitted in a specific area of textiles and clothing. For Plan B, 6 hours of approved coursework, at least 3 of which must be at the 500-level or above, must be taken in lieu of the thesis.

The research tool requirement usually involves demonstration of the ability to read French or specialized study in statistics and research methods or computer utilization.

Specialist in Education (Vocational Home Economics major)

See Department of Teacher Education.

537	Critique and Design of Investigations in Institutional and Home Environment. 3 hours. Textiles and clothing investigations. Opportunity to pursue individual interest in specialized areas, e.g. textiles, clothing, merchandising, interior design, housing, etc.	577	Seminar in Child Development Research. 3 hours. Prerequisite: HEFL 576 or equivalent preparation. Analysis of current theories and research relevant to the development of social, perceptual-cognitive, and physical-physiological processes in children.
572	Curriculum Development in Home Economics Education. 3 hours. Curriculum trends in home economics education and curriculum development in specialized fields of home economics.	578	Seminar in Research in Marital and Family Therapy. 3 hours. Prerequisite: One course in marriage and the family. Critical examination of contemporary research by marital and family investigators in the fields of anthropology, biology, psychiatry, psychology, and sociology.
573	Evaluation in Home Economics Education. 3 hours. Theory and techniques of evaluation in home economics education. Analysis and refinement of instruments; interpretation of results of self-evaluation; and effective administration of programs.	579	Professional Theories and Methods in Marital and Family Therapy. 3 hours. Lectures on and demonstration of contemporary theories and methods of treating couples, families and groups. Includes the theories of Rogers, Satir, Knox, Ellis, and Adler.
574	Supervision of Home Economics Education. 3 hours. Prerequisite: Teaching experience, advanced courses, and consent of instructor. Theory, principles, and techniques of pre-service and inservice training of teachers in home economics. Emphasis on preparation of supervisory materials and evaluation.	580	Internship. 3 hours. Prerequisite: Approval of instructor. Clinical practicum in child development and family living or an internship in foods and nutrition, textiles and clothing, interior design, or home economics education. Assignments are made to approved private and public facilities.
575	Individual Study in Home Economics Education. 3 to 6 hours. Evaluation of home economics investigations. Includes planning and completing an individual study of limited scope.	598	Special Topics in Home Economics and Family Living. 1 to 6 hours. Prerequisite: Consent of instructor.
576	Theories of Child Development. 3 hours. Prerequisite: One course in child psychology, child development, or human growth and development. Critical analysis of cognitive, social-learning, maturational, and psycho-analytic theories of human development.	599	Thesis Research and Writing. 6 hours.
		599c	Maintaining Matriculation. 1 to 6 hours.
			The following 400-level courses may be taken for graduate credit.
		420G	Non-Residential Projects. 3 hours. Planning of non-residential interiors including cost control, selection of furnishings,

lighting and presentation. Lecture-lab-field trips.	438G Textile and Clothing Merchandising II. 3 hours. Prerequisite: HEFL 333. Principles, techniques, and practices of effective fashion merchandising. Includes problems in store design and display, supervision of retail establishment, and fashion merchandising.	492G Institution Food Preparation. 3 hours. Basic food preparation principles applied to quantity food production and services. Standardization of recipes and procedures. (Lecture, 1 hour; practicum, 10 hours)
422G Textile Design II. 3 hours. Historic and contemporary design. Applications for costume, home furnishings, and accessories.	461G Advances in Science of Nutrition. 3 hours. Individual study of literature and research concerned with foods and nutrition.	493G Institutional Purchasing. 3 hours. Prerequisite: HEFL 492. Principles and methods of buying food and supplies for various types of quantity food services. Emphasis on specifications, standards, inventory, and factors affecting quality and cost control.
423G Interior Design Architectural Survey: History and Components. 3 hours. Interface and interaction between architecture and interior design through history, with emphasis on the components involved. Includes folk architecture.	464G Advanced Foods. 3 hours. Prerequisites: HEFL 261, Chem 107, or consent of instructor. Biol 207 recommended. Chemical, physical, and microbiological factors related to foods.	494G Applied Institution Administration. 3 hours. Prerequisites: HEFL 390 and 492. Standard methods of quantity food production, menu planning, food cost determination, job analysis and problems involved in institution administration. Requires administrative responsibilities, under supervision. (Lecture, 1 hour; practicum, 10 hours)
424G Specifying and Buying Interior Furnishings. 3 hours. The behavioral basis for selecting and specifying interior artifacts to satisfy human wants and needs; examination of the marketplace and its mechanisms to implement specifications.	465G Diet Therapy. 3 hours. Prerequisites: HEFL 363, Biol 472, and Chem 309. Principles of nutrition in the treatment of certain organic, functional, and metabolic diseases or conditions.	495G Organization and Management of School Lunch Service. 3 hours. Prerequisites: HEFL 390 and 494. Sec Ed 370 is recommended. Organization and management of single and multiple school lunch units including menu planning, purchasing records, equipment, and meal services.
425G History of Costume. 3 hours. Costumes from ancient times to present; cultural and economic factors.	466G Experimental Foods. 3 hours. Ingredients and their function; factors involved in food preparation; evaluation of foods by objective measurements.	496G Menu Planning and Merchandising for the Food and Lodging Industry. 3 hours. Prerequisite: HEFL 492. Menu planning for group feeding, meeting nutritional needs of different age levels, portion costs, menu pricing, and merchandising.
427G Presentation Techniques. 3 hours. Perspective and rendering materials and techniques used by interior designers.	480G User-oriented Interior Design and Housing. 3 hours. Methods of determining user needs so that resultant interior design and housing may satisfy those needs.	497G Food and Labor Cost Control. 3 hours. Prerequisite: HEFL 390, principles of accounting. Areas studied include work management methods, relationship of labor costs and mechanization, food cost controls, portion control methods of purchasing and preparation, and application of accounting and inventory procedures
428G Merchandise Display and Promotion. 3 hours. Principles and practices in arranging and displaying merchandise and in planning and executing sales promotions.	481G Lighting Design. 3 hours. Prerequisite: HEFL 382. Lighting and wiring design for residences and the near environment. Emphasis on economics of installation and energy use, aesthetics, safety, and function of activity areas.	498G Special Topics in Home Economics and Family Living. 1 to 3 hours. Prerequisite: Approval of department head. Topics selected from child development and family living, dietetics, foods, nutrition, institutional administration, textiles and clothing, interior design, home economics education. May be repeated with different topic.
430G Historic Textiles. 3 hours. Prerequisite: HEFL 231 Decorative fabrics and the history of textile design from ancient times to present.	482G Residential Energy Resources and Problems. 3 hours. Issues and trends in the supply and use of nonhuman energy resources. The roles and choices of space designers and consumers regarding design, selection, and use of housing, home furnishings, and appliances.	499G Parenting Strategies. 3 hours. Major parenting approaches including Adlerian, behaviorist, and communication modalities. Emphasis upon specific parenting techniques along with the philosophical and developmental bases.
431G Clothing and Human Behavior. 3 hours. Prerequisites: 9 hours of social science or consent of instructor. Dress and adornment as related to human behavior.	483G Household Equipment and Usage Factors. 3 hours. Materials, finishes, and design of household equipment. Emphasis on use, safety, and productivity.	
432G Recent Developments in Textiles. 3 hours. New developments in textiles as reported in current literature.	484G Space and Activity Analysis. 3 hours. Includes concepts of time use and productivity as well as family economics and selected environmental components relative to housing interiors.	
433G Fashion Fundamentals. 3 hours. Fashion as a social force. The fashion world: designers, leading markets, fashion cycles.	491G Family Life Education. 3 hours. Principles, practices, and content of family life education. Extension agents, social workers, and mental health professionals (in addition to teachers of family life education) may enroll.	
434G Advanced Clothing Tailoring. 3 hours. Advanced techniques of tailoring.		
435G Advanced Textiles. 3 hours. Prerequisites: HEFL 231 and chemistry. Relation of fiber and fabric properties to serviceability; testing of fabrics with emphasis on interpretation of results in consumer choice. Individual problems.		
436G Advanced Clothing Design. 3 hours. Interpretation and development of original designs through the media of flat pattern and/or draping.		
437G Fashion and Design Study Tour. 3 hours. Travel to fashion and design centers to observe current trends in design, production, marketing and promotion of textiles, clothing, and home furnishings.		

DEPARTMENT OF PHYSICAL EDUCATION AND RECREATION

ACADEMIC-ATHLETIC BUILDING #2
ROOM 316 (502) 745-3347

Burch Oglesby, Head

Graduate Faculty

Professors: J. Jones, A. Little, W. Meadors, B. Oglesby

**Associate Professors: T. Crews, W. Kummer, S. Laney,
R. Sims**

Assistant Professor: C. Daniel

Degrees Offered: Master of Science in Physical Education, Master of Arts in Education (Physical Education major or minor), Master of Science in Recreation.

Diversified programs are available in physical education and recreation. The department maintains laboratories for study of human motor behavior and physical performance, and students are encouraged to pursue personal research interests.

Master of Science in Physical Education

This program is designed to meet the needs of students seeking concentrated study within the academic discipline of physical education. All candidates are required to take

Graduate courses in Physical Education

501 Analysis of Research in Physical Education. 3 hours. Selected studies in the physical education literature related to methods, materials, techniques, and planning of research studies used and conducted by the profession. (To be taken in first term of enrollment).

502 Philosophical Bases of Physical Education and Athletics. 3 hours. The influence of major educational philosophies upon physical education and athletics; the development of a practical and usable personal philosophy of modern physical education.

503 Motor Learning. 3 hours. Prerequisite: PE 501. Theories and principles of learning as they apply to the acquisition of gross motor skills. Emphasizes the interpretation and practical application of experimental data.

504 Physiological Bases of Motor Performance. 3 hours. Application of physiological principles of motor activity. Inferences on improving instructional practices.

505 Foundations of Curriculum Construction. 3 hours.

Principles, procedures, and criteria for curriculum construction and revision, course building, and lesson planning.

506 Psychological Aspects of Sport and Performance. 3 hours. Prerequisite: PE 501. The various psychological parameters on sport performance.

507 Sport in Culture. 3 hours. The sports movement in America from a socio-cultural viewpoint. Analysis of current problems and trends.

510 Seminar: Facilities, Construction and Equipment. 3 hours. Principles, standards, practices and problems in planning, constructing, administering the building program, maintaining the facilities and in purchase and care of equipment.

511 Theory in Administration and Supervision of Physical Education and Athletics. 3 hours. Basic administrative theory and research for the administration of physical education and athletic programs.

512 Seminar: Administration Problems in Physical Education and Athletics. 3 hours. Organization and control of physical education and athletics programs at various education levels. Discussion of contro-

versial issues and practice in seeking solutions.

530 Independent Investigations in Physical Education. 3 hours. Prerequisites: PE 501 and consent of instructor. Research problems or projects in the organizational, administrative, or supervisory areas of physical education.

570 Workshop in Physical Education. 3 hours. Workshop and/or seminars dealing with special problems and current topics in physical education.

599 Thesis Research and Writing. 6 hours. **599c Maintaining Matriculation.** 1 to 6 hours.

The following 400-level courses in Physical Education may be taken for graduate credit

430G Physical Education Curriculum in the Elementary School. 3 hours.

454G Problems and Trends in Elementary Physical Education. 3 hours.

456G Advanced Studies in Physical Education and Athletics. 3 hours.

491G Physical Diagnosis and Corrective Physical Education. 3 hours.

Recognition of abnormalities and exercise for correction.	523	public through the use of audio-visual devices and techniques.	434G Development of Nature Oriented Areas and Facilities. 3 hours. Nature trail design and preparation, live and inanimate exhibit design and preparation, resource inventory, building, exhibit material purchase, vandalism, etc.
492G Advanced Athletic Training. 3 hours. Techniques needed in the prevention and care of athletic injuries—including recognition, prevention, treatment, reconditioning, rehabilitation.	530	Philosophy and Trends. 3 hours. Philosophical and historical development of opinions and attitudes toward the concepts of leisure and recreation.	435G Techniques in Outdoor Education. 3 hours. Field trips, nature crafts, audio-visual aids and interpretive materials, etc., and their importance in developing outdoor education as a recreational activity.
Graduate Courses in Recreation			
501 Analysis of Research in Recreation. 3 hours. Selected studies in recreation literature relative to methods, materials, techniques, and planning of research studies used and conducted by the profession.	590	Independent Investigations in Recreation. 3 hours. Special research problems in the area of recreation.	450G Introduction to Commercial Recreation and Tourism. 3 hours. Prerequisites: Rec 200, 300, 302, and 306. Commercial recreation and tourism, including the establishment, supervision, and operation of areas and facilities.
513 Organization, Administration, and Supervision of Parks, Playgrounds and Recreation Programs. 3 hours. Organization and administration of recreation at federal, state, and local levels. Correlation and integration of the entire recreation program into the culture and society of the community.	599	Internship in Recreation. 3 hours. Experience in recreation planning, leadership, supervision, and program evaluation through work in recreation, park, and other leisure oriented settings. Supervised by University faculty and personnel from area recreation agencies.	451G Recreation Management. 3 hours. Practical approach to management of park facilities and personnel. Includes program planning, design, and standards.
515 Planning and Maintenance of Park and Recreation Facilities. 3 hours. Principles and problems in planning and maintenance of park and recreation facilities. Relationship of facilities to program needs. Field trips required.	599c	Maintaining Matriculation. 1 to 6 hours. The following 400-level Recreation courses may be taken for graduate credit	456G Advanced Studies in Recreation. 3 hours.
517 Construction and Utilization of the Survey in Recreation. 3 hours. Planning, application, and evaluation of the survey as a means of determining recreation program needs in selected settings.	410G	Therapeutic Recreation. 3 hours. Principles, trends and programs of therapeutic recreation. Selected disabilities considered.	470G Administration of Municipal Recreation. 3 hours. Covers various aspects of recreation in a municipal setting. Includes personnel, financing, facilities, planning, maintenance, and such other topics as legislation and vandalism.
519 Fiscal Practices for the Administrator of Recreation and Parks. 3 hours. Budget construction, record-keeping, purchasing, personnel problems, and office management as related to recreation.	412G	Adaptive Activities and Facilities for Recreation. 3 hours. Methods of adapting recreational programs, activities, and facilities for the handicapped.	471G Community Centers and Playgrounds. 3 hours. Playground and community center operation. Teaching techniques, programming, and problems relating to community recreation.
521 Public Relations for Parks and Recreation Programs. 3 hours. Effective communication between colleagues, program participants, and the	432G	Principles of Outdoor Recreation. 3 hours. Values and extent of outdoor recreational philosophy based on legislation, geographic factors, land use, standards, agencies, and economics.	481G Recreation Seminar. 3 hours. Introduces current problems, trends, and issues in the area of leisure services.
	433G	Camp Administration. 3 hours. Status, purpose, and administration of organized camping. Includes history and trends, selection and training of staff, health and safety considerations, etc.	482G Recreation Workshop. 1-3 hours. In-depth study of specific skill areas relating to the recreational profession.

DEPARTMENT OF PSYCHOLOGY

**COLLEGE OF EDUCATION BUILDING
ROOM 276 (502) 745-2695**

John O'Connor, Head

Graduate Faculty

Professors: J. Cangemi, L. Clark, J. Craig, W. Cunningham, E. Dotson, C. Layne, C. Martray, S. McFarland, L. Metze, R. Miller, J. O'Connor, H. Robe, R. Simpson

Associate Professors: L. Alexander, S. Fisicaro, D. Grice, B. Howton, L. Layne, R. Mendel, E. Owen, W. Pfohl, R. Poe, D. Roenker

Assistant Professors: C. Eison, D. Redfield

Degrees Offered: Master of Arts in Psychology, Master of Arts in Education (Psychology major or minor).

Master of Arts in Psychology

This program provides preparation for students who wish to pursue careers in clinical, industrial, governmental, or school settings. The Department offers four options: clinical, experimental, industrial, and school psychology. Within each option, the student is expected to become competent in theory, research, and applications of psychology as related to the chosen area of concentration.

Applicants should have a statistics and experimental methodology course, background in general psychology, a minimum score of 850 on the Graduate Record Examination General (verbal and quantitative combined) Test, a GPA of 2.5 with a 3.0 in psychology courses, and *four letters of recommendation* sent to the departmental admissions committee.

Core requirements for all options are the following:

Psychology 512, 563, and 599 (thesis)

Research tool requirement

Comprehensive oral examination, required at the time of thesis defense

Clinical Psychology

This option is practice-oriented and offers a broad foundation for individuals planning to render psychological services at the MA level. Students prepare for the certification examination administered by the Kentucky State Board of Psychology and by boards in other states requiring certification for individuals who provide psychological services at the MA level. Students are expected to adhere to the APA *Ethical Standards of Psychologists* and to maintain a professional demeanor in clinical activities. Forty-nine hours are required.

Specific course requirements are as follows: Psychology 541, 560, 561, 640, 641, 642, 660, 661, and 562, 662 (Practicum 10 hours). Students may elect to take additional hours in home economics and counselor education as well as additional hours in psychology.

Industrial-Organization Psychology

This option focuses on human behavior in industrial and governmental organizations. Students are expected to become proficient in the construction and validation of personnel selection systems. The Equal Employment Opportunity Commission's (EEOC) Guidelines on employment selection procedures and familiarity with relevant court decisions are major emphases of the program. A four-to-six months paid internship is available to those interested in personnel psychology. Forty-two hours are required.

Specific course requirements are as follows: Psychology 460G, 513, 551, 552, 570, 571, 572, 670, and electives.

School Psychology

This option emphasizes training as a diagnostician-consultant. The student will function as an integral part of the total program of pupil-services. Each student receives on-site experience in public schools, school related prac-

Graduate Courses in Psychology

500 Trends and Scientific Approaches in Psychological Thinking. 3 hours.

Historical and philosophical bases of contemporary psychological thought and research with emphasis on the philosophy and logic of science as it pertains to psychology.

510 Advanced Educational Psychology. 3 hours.

Psychology of learning. Different psychological theories, methods and techniques.

511 Psychology of Learning. 3 hours.

Theories of learning including conditioning, social learning, reinforcement, problem solving, motivation and structure of the learning situation.

512 Seminar in Experimental Design. 3 hours.

Required for all graduate students in psychology. Understanding the principles of experimental design and the application of appropriate statistical techniques. Includes the design of an experimental project.

513 Advanced Statistical Analysis. 3 hours.

Prerequisite: Psy 512 or permission of instructor.

Advanced analysis techniques appropri-

ate to psychological research. Emphasizes the more complex forms of the analysis of variance, the analysis of covariance, and non-parametric statistics.

514 Program Evaluation. 3 hours.

Prerequisite: Psy 512 or equivalent. Examination of program accountability. Emphasizes all phases of evaluation. Also covers decision making processes.

515 Program Evaluation Laboratory. 1 hour.

Corequisite: Psy 514. Student will conduct a program evaluation as a part of an evaluation team and write the report for dissemination to appropriate offices and/or agencies.

516 Advanced Study in Motivation. 3 hours.

Historical and present motivation theories. Particular emphasis on a current literature survey of both human and animal research.

519 Psychological Perspectives on Classroom Behavior. 3 hours.

Prerequisite: Psy 510. Strategies and techniques designed for coping with problem behaviors in the classroom. Covers both preventative and problem encounter measures.

520 Psychology of Individual Differences. 3 hours.

Research and theory in developmental

aspects of behavior from the prenatal period to adulthood with emphasis upon individual differences.

521 Advanced Child Psychology. 3 hours.

Particular emphasis upon a critical review of current research in child development.

522 Advanced Adolescent Psychology. 3 hours.

Current research and theories in the area of adolescent psychology as they relate to physical, social, emotional and intellectual development.

523 Cognitive Theory. 3 hours.

Information processing, thinking and cognition. Covers major theories and research techniques in the area.

540 Behavior Problems of Childhood and Adolescence. 3 hours.

The major forms of psychopathology in children and adolescents, with emphasis upon recent research, classification systems and developmental patterns. Also covers clinical and school treatment of behavior problems encountered in the school setting.

541 Introduction to Professional Psychology. 3 hours.

Methods and research in clinical, school, and counseling psychology. Emphasis on

ticum assignments in the department's psychological clinic, and experience as a member of an interdisciplinary team in the College of Education's Child Diagnostic Clinic. Upon completion of the program the student is recommended to boards of education and state boards of psychological examiners for certification as a school psychologist. Sixty hours are required.

Specific course requirements are as follows: El Ed 503, Exc Ed 516, Rdg Ed 519, Psy 521, 540, 541, 552, 560, 561, 562, 590, 592, 643.

General-Experimental Psychology

This option is designed for students who plan to pursue doctoral studies after completion of the master's degree or who desire a terminal master's degree in general psychology. Flexibility allows the student to choose courses specific to interests and career goals that are not included in the other options.

Course requirements, other than those required in the core, are individually determined by the faculty advisor.

School Psychometrist

A program which meets Kentucky certification of school psychometrists is available. Detailed information may be obtained from the Psychology Department.

Master of Arts in Education (Psychology major or minor)

Students following this program must meet all requirements for standard high school certification. The major requires a minimum of 18 or a maximum of 21 hours. The minor requires a minimum of 12 hours or a maximum of 15 hours. The remaining hours, in both cases, will be taken in professional education courses. The thesis is recommended.

	<p>roles, ethics, legal and current professional issues as they relate to the master's level practitioner.</p>		<p>The following 400-level courses may be taken for graduate credit</p>
550	<p>Personality Theory. 3 hours.</p> <p>Psychological principles underlying the study of personality in relation to a social environment. Topics include theories of personality, the process of socialization of the individual, factors influencing adjustment to social environment.</p>	590	<p>Readings or Research in Psychology. 1 to 3 hours.</p> <p>Prerequisite: Departmental permission only.</p> <p>Individual readings or research. Arrangements must be made before enrollment.</p>
551	<p>Social Psychology of Organizations. 3 hours.</p> <p>The dynamics of groups and organizations. Current theory and research in psychology of organizations.</p>	591	<p>Internship in College Teaching. 1 to 2 hours.</p> <p>Problems and methods of teaching at the college level. Students enrolled in this course will concurrently teach a course in introductory or general psychology.</p>
552	<p>Advanced Social Psychology. 3 hours.</p> <p>Behavior of the individual in relation to social contexts. Topics include group dynamics, attitude formation and change, social influence processes, socialization and language use in communication.</p>	592	<p>School Psychology Internship. 3 hours.</p> <p>Field experience for school psychologists. Required for Kentucky certification. To be taken in the student's last semester in residence.</p>
560	<p>Individual Assessment—I. 3 hours.</p> <p>Administration of the WICS, WAIS, WPPSI, BINET, and other individually administered tests used as basic tools in education, occupational guidance and clinical diagnosis.</p>	599	<p>Thesis Research and Writing. 6 hours.</p>
561	<p>Individual Assessment—II. 3 hours.</p> <p>Interpretation of the tests commonly used in educational, vocational guidance and clinical diagnostics. Emphasis on report writing and basic clinical practice.</p>	599c	<p>Maintaining Matriculation. 1 to 6 hours.</p>
562	<p>Practicum in Psychological Assessment. 1 to 3 hours.</p> <p>Corequisite: Psy 560 or 561.</p> <p>Supervised experience in the administration and interpretation of tests used in an educational or clinical setting for the diagnosis of intellectual and learning problems. (May be repeated.)</p>	640	<p>Psychopathology. 3 hours.</p> <p>Major forms of child and adult psychopathology with emphasis upon recent research, classification systems, modification of deviant behavior and developmental patterns of learning and motivation variables.</p>
563	<p>Test Construction and Psychometric Theory. 3 hours.</p> <p>Required of all graduate students in psychology. Introduction to psychometrics with emphasis on both technical and ethical problems involved in the use and construction of psychological measurement instruments.</p>	641	<p>Clinical Interviewing and Psychotherapy I. 3 hours.</p> <p>Selected theories and techniques of psychotherapy and counseling. Also covers group therapy, clinical topics, and professional and ethical issues.</p>
570	<p>Introduction to Industrial/Organizational Psychology. 3 hours.</p> <p>Overview of the I/O discipline. Acquaints students with the major perspectives, methods, and applications in the content areas of this concentration.</p>	642	<p>Clinical Interviewing and Psychotherapy II. 3 hours.</p> <p>Prerequisite: Psy 641.</p> <p>Continuation of 641 with emphasis on group, family, and marital psychotherapy.</p>
571	<p>Personnel Psychology. 3 hours.</p> <p>Employee selection procedures, with emphasis on methods and techniques of job analysis, interviewing, testing, etc. Direct involvement in data collection and analysis.</p>	643	<p>Psychoeducational Assessment. 3 hours.</p> <p>Prerequisites: Psy 560, 561, 564.</p> <p>Diagnostic procedures for the mentally handicapped, culturally disadvantaged, and learning disabled. Includes psycho-neurological issues. Students will be exposed to and write Individual Educational Programs (IEP).</p>
572	<p>Organizational Psychology. 3 hours.</p> <p>Selected topics relevant to work organizations. Emphasizes current theories and research practices.</p>	660	<p>Psychological Evaluation I. 3 hours.</p> <p>Prerequisite: Psy 560.</p> <p>Personality diagnosis using objective and projective techniques with emphasis on current research interpretation, and communication of assessment information.</p>
580	<p>Advanced Physiological Psychology. 3 hours.</p> <p>Anatomy of the nervous system, relationships among the components of the nervous system and psychological functioning.</p>	661	<p>Psychological Evaluation II. 3 hours.</p> <p>Prerequisite: Psy 660.</p> <p>A continuation of 660 with emphasis on personality measures and procedures for assessing psychological and neuro-psychological disorders.</p>
581	<p>Laboratory in Advanced Physiological Psychology. 3 hours.</p> <p>Corequisite: Psy 580.</p> <p>Physiological techniques of electrical recording and electrical chemical stimulation.</p>	662	<p>Practicum in Psychological Practice. 1 to 3 hours.</p> <p>Supervised practice in schools, clinics, specialized training centers and hospitals. Persons preparing for careers in school or clinical psychology will enroll in 662 for a minimum of two semesters.</p>
		670	<p>Equal Employment Opportunity, the Law, and Ethical Considerations. 3 hours.</p> <p>Issues relevant to providing equal employment opportunity: EEOC and FEA guidelines regarding selection practices; review of major court decisions and their implications for the conduct of selection; professional and ethical considerations in the practice of I/O psychology.</p>
			<p>400G History and Systems of Psychology. 3 hours.</p> <p>Prerequisite: Nine hours in psychology. Historical antecedents of contemporary psychology. Both the sequence of psychological theory evolution and personality of prominent theorists are emphasized.</p>
		410G	<p>Psychology of Learning. 3 hours.</p> <p>Prerequisites: Psy 201 and 210 or permission of instructor.</p> <p>Facts and principles of human and animal learning, treated in theories attempting to provide a general framework for understanding what learning is and how it takes place.</p>
		411G	<p>Psychology of Sensation and Perception. 3 hours.</p> <p>Prerequisites: Psy 201 and 210 permission of instructor.</p> <p>Basic data and theories of psycho-physics, illusions and other topics fundamental to the understanding of sensory and perceptual processes.</p>
		412G	<p>Psychology of Motivation and Emotion. 3 hours.</p> <p>Prerequisites: Psy 201, 210, or 410 or permission of instructor.</p> <p>Needs, desires and incentives as they influence behavior. Includes review and analysis of research on motivational processes in human and animal behavior and the development of motivation and emotions.</p>
		422G	<p>Adolescent Psychology. 3 hours.</p> <p>Behavior and development from early adolescence to adulthood with emphasis on a critical review of research and literature in the field.</p>
		423G	<p>Psychology of Adult Life and Aging. 3 hours.</p> <p>Prerequisites: Psy 100.</p> <p>Early adulthood, mid-life, and old age. Both descriptive and theoretical, the emphases will be on contemporary psychological theories and literature, methodological issues, and the interaction of psychological, biological, social and environmental factors in adulthood and aging.</p>
		432G	<p>Psychology of The Gifted and Creative. 3 hours.</p> <p>Prerequisite: Psy 100.</p> <p>Identification of gifted children and adults with emphasis on educational programs for the maximum development of giftedness.</p>
		440G	<p>Abnormal Psychology. 3 hours.</p> <p>Prerequisite: Six hours in psychology.</p> <p>Forms of abnormal behavior, etiology, developmental courses, interpretations, behavioral manifestation and treatment programs.</p>
		441G	<p>Psychological Aspects of Alcoholism. 3 hours.</p> <p>Prerequisites: Psy 440 and permission of instructor.</p> <p>Application of psychological theories and research to the treatment of alcoholism.</p>
		443G	<p>Behavior Theory and Application. 3 hours.</p> <p>Prerequisite: Psy 410, or enrollment in special education sequence.</p> <p>Theory and application of techniques for modifying behavior in clinics, hospitals, child rearing and education. Cross-listed with Exc Ed 443.</p>

450G Introduction to Personality Theory. 3 hours. Prerequisite: Nine hours of psychology or permission. Major theoretical approaches to the study of personality. Includes historical as well as contemporary theorists and avenues of analysis and concepts in the field of personality.	Research methods of social psychology and examination of major research areas. Primarily for psychology majors and minors.	which influence behavior.
460G Methods and Research in Social Psychology. 3 hours.	480G Physiological Psychology. 3 hours. Prerequisites: Psy 201, 210, and three hours in biology or permission. Physiological mechanisms which underlie behavior. Specific areas of emphasis include current research on neurological, biochemical and sensory mechanisms	490G Special Topics in Psychology. 3 hours. Faculty directed research and/or readings in psychology.
		499G Senior Seminar in Psychology. 3 hours. Major concepts and issues in psychology. Directed reading, guest lectures, field trips, and/or oral reports by students are utilized.

DEPARTMENT OF TEACHER EDUCATION

COLLEGE OF EDUCATION Room 104 (502) 745-5414

Curtis L. Englebright, Head

Graduate Faculty

Professors: K. Brenner, J. Caskey, S. Cooke, G. Crumb, C. Englebright, D. Geeslin, J. Gibbs, V. Guthrie, H. Hardin, J. Hicks, J. Johnson, J. Koper, A. Laman, J. McGuire, R. Melville, A. Munson, R. Panchyshyn, R. Pankratz, G. Rich, R. Roberts, J. Scarborough, H. Simmons, I. Simpson, R. Stevenson, E. Wassom, D. Watts

Associate Professors: J. Becker, E. Counts, C. Crooks, G. Dillingham, E. Hanes, R. Hicks, E. Monroe, R. Otto, J. Pollock, D. Ritter, J. Sanders, R. Smith, K. Taylor, S. Taylor, J. Vokurka

Assistant Professors: J. Carroll, R. McKenzie, M. Roit, A. Ruff

Degrees Offered: Master of Arts in Education, Master of Science, Specialist in Education.

Master of Arts in Education (Elementary Education major)

Since this program leads to the standard elementary certificate, applicants must hold a provisional teaching certificate valid at the elementary school level. (Coursework taken to endorse the secondary school certificate for teaching at the elementary level will not apply to the master's degree).

The student's program may be planned to include an emphasis in reading, early childhood education, elementary librarian, or exceptional child education (mental retardation, learning disabilities, emotionally disturbed, and speech and communication disorders).

Completion of the program outlined below, which meets the requirements of Kentucky law and the general regulations of the State Board of Education, qualifies the elementary teacher for the Master of Arts in Education degree and the standard certificate.

- A. Educational Foundations (6 hours)
Ed Fnd 500 Research Methods
El Ed 503 Org of Elem Curr
- B. Professional Education (12 hours) in one of the following areas of emphasis:
 - 1. General Elementary Education
3 hours in advanced reading instruction plus 3-9 hours selected from El Ed 505, 506, 507, and 445G. Any remaining hours may be chosen, with advisor approval, from Ed Fnd 548, 576, 598, and Cns Ed 550.
 - 2. Emphasis in Early Childhood Education
3 hours in advanced reading plus Ear Ed 508, 509, and 412G. (El Ed 493—Student Teaching, Kindergarten, must also be taken, although credit is not received.)
 - 3. Emphasis in Reading
Rdg Ed 519, 520, 521, and 522
 - 4. Exceptional Child Education (see requirements, as outlined elsewhere)
- C. Minor Area (12 hours)
 - 1. Subject matter (non-education) courses, selected with advisor approval, from one, two or three areas (courses from a maximum of three areas may be used in the minor).
 - 2. Elementary Librarian emphasis (Available to general elementary students).

Master of Arts in Education (Secondary Education major or minor)

This program leads to the standard high school certificate. Applicants must declare both a major and a minor (one or the other must be in secondary education). The following majors are permitted:

Agriculture, art, biology, business education and office administration, chemistry, communication, economics, English, English and allied language arts area, French, geography, German, health, health and safety, history, home economics, industrial education, library science, math, math-science area, music, physical education, psychology, reading, science area, secondary education, social science area, and Spanish.

This program permits minors in the following areas:

Agriculture, art, biology, business education and office administration, chemistry, communication, distributive education, drama/theatre, economics, English, folk studies, French, geography, German, health, health and safety, history, home economics, industrial education, library science, mathematics,

music, physical education, physics, psychology, science area, secondary education, sociology, and Spanish.

General Requirements:

- A. Required professional courses (9 hours)
Ed Fnd 500—Research Methods
Sec Ed 580—Curriculum

One course from the following:
Sec Ed 528 through 542—Seminar
Sec Ed 543—Interactive Teaching Skills
Sec Ed 544—Classroom Teaching Skills
Ed Fnd 576—Social Foundations of Education
Ed Fnd 577—Philosophy of Education
Psy 510—Advanced Educational Psychology
Psy 511—Learning
- B. Elective professional courses can be selected from the following (3 to 9 hours):
Any courses listed under A above
Sec Ed 444G—Reading Jr/Sr High School
Sec Ed 455G—Junior High School
Sec Ed 445G—Audio Visual
Sec Ed 570W—Workshop
Sec Ed 571—Junior High Curriculum
Reading Ed 519—Foundations of Reading
Sch Adm 585—Fundamentals of School Adm
Sch Adm 598—Supervision of Student Teachers
Cns Ed 550—Introduction to Guidance
Cns Ed 554—Group Guidance
- C. Area of academic specialization (at least 12 hours); student must meet the requirements for the declared, academic major/minor, as outlined by the administering department.

Reading Major Requirements

- A. Professional Education, as above (9 hours)
- B. Rdg Ed 519, 520, 521, and 522 (12 hours)
- C. Non-professional education coursework, individually prescribed (12 hours)

Master of Arts in Education (Exceptional Child Education—Trainable Mentally Handicapped)

Since this program leads to the standard certificate for teachers of exceptional children—trainable mentally handicapped, applicants must hold a provisional certificate for teaching exceptional children who are trainable mentally handicapped and must be endorsed for elementary classroom teaching in grades one through eight. Requirements are as follows:

- A. Professional Education Core Ed Fnd 500, El Ed 503 or Sec Ed 580, and Exc Ed 531
- B. Specialization Courses Exc Ed 530, 532, 534, 535, and 518
- C. Electives—Nine hours of coursework, approved by the advisor, from one or more of the following areas: communication and theatre, health and safety, home economics, industrial education, library science, physical education, psychology, recreation, sociology

Master of Arts in Education (Exceptional Child Education—Learning and Behavior Disorders)

Since this program leads to the standard certificate for teachers of exceptional children—learning and behavior disorders, applicants must hold a provisional certificate for teaching exceptional children with learning and behavior disorders and must be endorsed for elementary classroom teaching in grades one through eight. Requirements are as follows:

- A. Professional Education Core Ed Fnd 500, El Ed 503 or Sec Ed 580, and Exc Ed 531
- B. Specialization Courses Exc Ed 518, 530, 532, 533, and 534
- C. Electives—Nine hours of coursework, approved by the advisor, from one or more of the following areas: communication and theatre, health and safety, home economics and family living, industrial education, library science, physical education, psychology, recreation, sociology.

Master of Arts in Education (Library Science major or minor)

The applicant must meet the general Graduate College admission requirements and must meet requirements for certification.

The following options are available under this degree:

- A. **Elementary Education Curriculum** (Library Science area of specialization)
When approved by the student's graduate advisory committee, 12 to 15 hours in the curriculum for elementary teachers can be applied toward the total requirements for certification as a public school media librarian.
- B. **Secondary Education Curriculum** (Library Science major or minor)
This program provides courses for the school librarian. Students following it must meet all requirements for the standard high school certificate or the standard certificate for school media specialist. The library science major requires 18-21 hours in library science, while the minor requires 12-15 hours. The remaining hours will be taken in professional education courses.

Master of Science (Communication Disorders)

This program is designed to prepare professional speech pathologists to meet the needs of the communicatively handicapped in hospitals, clinics, nursing facilities, and residential schools. It is also designed to meet the academic and clinical requirements of the American Speech Language and Hearing Association, leading to national certification and state licensure.

Admission to the program requires an undergraduate grade point average of B for the final 60 semester hours or a minimum combined score (verbal and quantitative) of 800 on the General Test of the GRE. Students without an undergraduate background in communication disorders will complete a total of 42 hours in the area to meet the National Association's academic requirements. A strong academic background in psychology is desirable.

Thirty-three semester hours are required for both the thesis and non-thesis option. Specific course requirements are Exc Ed 504 and 509. Twenty-four hours must be selected, with advisor approval, from the departmental course listing. Additionally, the student must complete 150 clock hours of clinical experience at the graduate level.

The research tool requirement may be met by success-

ful (grade A or B) completion of Ed Fnd 500 or as otherwise specified by the student's major advisor and approved by the graduate dean.

During the final semester of coursework, the candidate must pass the written comprehensive examination. Students are also encouraged to take the national certification examination during the final semester.

Master of Science (Library Science)

This program is designed for those who are interested in the field of school media librarianship.

In addition to meeting the general Graduate College admission requirements, the applicant should have a grade point average of at least 2.7 (4.0) for the final 60 semester hours of undergraduate work, a minimum combined score (verbal and quantitative) of 800 on the General Test of the Graduate Record Examination, and six hours of approved prerequisite work in library science from LME 288, 401, 406, 408, and 445 or their equivalents. The prerequisite courses may be taken concurrently with graduate coursework. Students with media library experience equivalent to these prerequisite courses may, with the approval of the department head, take a qualifying examination to have these courses waived. Applicants who have a grade point average of 3.0 and a score of 700 (verbal and quantitative combined) on the General Test of the GRE may be admitted. Students having less than the required grade point average may be considered for admission provided their combined (verbal and quantitative) General Test score is above 800.

Both Plan A (thesis) and Plan B (non-thesis) are available. Up to six hours of the required 30-hour minimum may be selected from related fields such as literature, mass communications, history, or education. The research tool requirement shall be met by successful (grade A or B) completion of Ed Fd 500-Research Methods—or its equivalent.

Students may select either of the two program options but must complete 406G, 408G, and 502 within the program.

Specialist Degree in Education (Elementary Education, Secondary Education)

This post-master's degree provides opportunity for the advanced graduate student to improve the foundations and competencies for teaching. The program may also be structured to meet Rank I requirements under Kentucky's minimum foundation program of education. The following emphases or specializations are available to the elementary education major: reading, early childhood education, general curriculum and instruction. Available concentration areas for secondary education majors are science, social science, language arts, and vocational education.

In addition to meeting the admission requirements of the Graduate College, applicants must meet the following departmental requirements:

1. Three years (two years for secondary education majors) of teaching experience at the appropriate level. (For elementary education majors, up to two years of experience may be waived in favor of equivalent experience)
2. Four letters of recommendation: two from graduate faculty members and two from professional associates in administrative and/or supervisory roles.

The student's program is individually planned to include educational foundations and professional education coursework, cognate area coursework and the specialist project.

The student's graduate committee will assist in the development of the program, supervise the research project, and administer the final comprehensive examination.

Graduate Courses in Teacher Education

Early Childhood Education (Ear Ch Ed)

508 Child Development and Child Study for Elementary Teachers. 3 hours.

Prerequisite: Ed Fnd 500 or permission of instructor.

Educational implications of major theories of child development. Includes an intensive study of a child or children and interpretation of the collected data in terms of educational techniques and practices.

509 Curriculum Trends in Early Childhood Education. 3 hours.

Current national and international issues and problems in preschool and early elementary education with emphasis on program planning for curriculum improvement.

The following 400-level Ear Ch Ed courses may be taken for graduate credit

410G Early Childhood Development, Education and Guidance. 3 hours.

Physical, emotional, social, and intellectual development and guidance of infants and children through five years of age.

Supervised observations of preschool children.

411G History and Organization of Preschool Programs. 3 hours.

Kindergarten and nursery school development; contributions of early leaders; recent leaders and current programs; physical plant equipment, financing, standards, and teacher-parent relationships.

412G Materials and Methods in Preschools. 3 hours.

Organization of educational programs for kindergartens and nursery schools; planning and use of materials; individual and group needs. Lecture and lab.

Elementary Education (El Ed)

503 Organization of the Elementary School Curriculum. 3 hours.

Principles and practices in elementary school curriculum construction. Emphasis on forces affecting curriculum, current innovations, and trends.

505 Advanced Materials and Methods in Modern Mathematics for Elementary Teachers. 3 hours.

Kindergarten through grade eight. Involves the conceptual, the computational and application aspects of mathematics with emphasis on the structural aspects of mathematics and on the "why" of arithmetic computation.

506 Seminar in Elementary School Science. 3 hours.

Advanced methods and materials for teaching science in the elementary school.

507 Advanced Materials and Methods in Social Studies. 3 hours.

Concepts and objectives, classroom organization for instruction, current strategies in teaching content, and materials available.

543 Interactive Teaching Skills. 3 hours.

Opportunity for elementary and secondary teachers to develop interactive teaching skills by selecting and completing two of four minicourses developed by Far West Laboratory for Educational Research and Development.

544 Classroom Teaching Strategies. 3 hours.

Opportunity for elementary and secondary teachers to extend their teaching strategies by completing two of five minicourses developed by the Far West Laboratory for Educational Research and Development.

545 Investigations in Classroom Teaching. 1 to 3 hours.

Opportunity for elementary teachers to engage in the concentrated study of specific problems and/or the development of specific skills related to effective classroom instruction.

599	Thesis Research and Writing. 6 hours.	or 483G or permission of instructor.	532	Intervention Strategies with Parents. 3 hours.
599c	Maintaining Matriculation. 1 to 6 hours.	Language development disorders of children. Characteristics of normal as well as of delayed and disrupted language patterns and their differential diagnosis.		Interpreting programs for handicapping conditions to maximize family involvement. Emphasizes the attitudes, skills, and knowledge taught in the educational program.
603	Advanced Seminar Elementary Curriculum. 3 hours.	Strategies and models to assist the elementary classroom teacher in assuming an active role in total elementary school curriculum development.	533	Seminar: Curriculum for Learning and Behavior Disorders. 3 hours.
604	Management of the Learning Environment I. 3 hours.	The first of a two-course sequence designed to enable elementary teachers to utilize Mastery Learning strategies and related teaching skills to increase student achievement and improve student attitudes toward learning.		Development, adaptation, and evaluation of curricula, methods, materials, and resources. Implementing and evaluating instructional programs.
605	Management of the Learning Environment II. 3 hours.	The second of a two-course sequence designed to enable elementary teachers to utilize Mastery Learning strategies and related teaching skills to increase student achievement and improve student attitudes toward learning.	534	Seminar: Research in Exceptional Child Education. 3 hours.
699	Specialist Project. 6 hours.			Non-categorical and discrete areas of exceptionalities. Emphasis on an independent research project.
699c	Maintaining Matriculation. 1 to 6 hours.		535	Advanced Curriculum for the Moderately Retarded. 3 hours.
The following 400-level El Ed courses may be taken for graduate credit				Curricula and programs for the moderately retarded. Focuses on a continuum of services philosophy for the handicapped.
420G	Reading in the Primary Grades. 3 hours.	Prerequisite: Ed 220. Principles and methodologies currently in use at the primary (K-3) school levels.	580	Diagnostic Procedures in Speech Disorders. 1 hour.
421G	Reading in the Intermediate Grades. 3 hours.	Prerequisite: Ed 220. Principles and methodologies currently in use at the intermediate (4-6) school levels.		Identification of speech disorders and treatment available.
445G	Audio-Visual Materials and Methods. 3 hours.	Instruction and laboratory experience in the operation and maintenance of equipment; theory relative to effective practices in audio-visual techniques. Cross-listed with LME.	589	Special Topics in Communication Disorders. 1-3 hours.
446G	Selection, Acquisition and Evaluation of Non-Print Material. 3 hours.	Instruction and experience in locating sources of supply for non-print materials and use of appropriate selection aids, acquisition procedures and evaluative techniques appropriate to non-print materials. Cross-listed with LME.		Independent investigation of special topics.
Exceptional Child Education (Ex Ch Ed)			590	Clinical Practicum in Speech Pathology. 1 hour.
502	Motor Speech Disorders. 3 hours.	The etiologies, communication characteristics, appraisal and treatment of motor speech disorders.		Advanced, supervised, clinical practicum. Clinical experience with the more acute communication disorders. Must be repeated for a total of three (3) hours.
503	Advanced Diagnostic Procedures in Speech Pathology. 3 hours.	Prerequisites: Exc Ed 481 or 481G and 485 or 485G. Expansion of diagnostic theory and procedures utilized in clinical settings by the certified speech pathologist.	599	Thesis Research and Writing. 6 hours.
504	Seminar in Language Disorders of Childhood. 3 hours.	Prerequisite: Exc Ed 481 or 481G and 483	599c	Maintaining Matriculation. 1 to 6 hours.
505	Communication Disorders of Cleft Palate and Cerebral Palsy. 3 hours.	Prerequisite: Exc Ed 481 or 481G. Etiology, diagnosis, and management of speech and language dysfunctions associated with cleft palate and cerebral palsy.	The following 400-level Ex Ch Ed courses may be taken for graduate credit	
506	Dysfluency. 3 hours.	Prerequisite: Exc. Ed 481 or 481G. Research review in the field of dysfluency, including cluttering and stuttering. Emphasis on etiology and clinical management of all fluency disorders.	510	Seminar in Speech Pathology. 3 hours.
507	Dysphasia. 3 hours.	Prerequisite: Exc Ed 481 or 481G. Dysphasia—including symptomatology, etiology, differential diagnosis, and training, with primary emphasis on adult problems.		Current issues that influence the profession of speech pathology; local, regional, and national issues that affect the speech pathologist's role as a service provider.
508	Voice Disorders. 3 hours.	Prerequisites: Exc Ed 481 or 481G and 484 or 484G. Diagnosis and remediation techniques of voice disorders in childhood and adulthood. Rehabilitation of the laryngectomized client, with emphasis on the development of esophageal speech or the use of the electro-larynx as a substitute voice.	511	Neurology of Speech and Language. 3 hours.
509	Speech Science. 3 hours.	Contemporary research in the area of speech science.		Neuroanatomy and neurophysiology as it applies to normal reflex, motor and perceptual speech, and language behavior. Emphasis given to test procedures for evaluation.
516	The Exceptional Child: Perspectives and Issues. 3 hours.	Characteristics, needs, and problems of children who are atypical in the mental, physical, sensory, emotional, and social areas of development.	518	Seminar: Problems in Special Education. 3 hours.
530	Advanced Assessment Techniques. 3 hours.	Alternatives to global assessment of various exceptional conditions in educational planning for exceptional children. Emphasizes use and construction of criterion measures and critical analysis of test components.		Prerequisite: Exc Ed 516. Issues in special education. Classroom experiences to develop awareness of and sensitivity to educational needs.
531	Advanced Prescriptive Teaching. 3 hours.	Adapting the learning environment to the learner. The affective, cognitive, and psychomotor aspects of a specialized learning environment.	482G	Audiology. 3 hours.
				The anatomy of hearing, causes of loss of hearing, and introduction to the methods of testing, analysis, and rehabilitation of people of all ages with hearing loss.
			483G	Articulation Disorders. 3 hours.
				The etiology, evaluation, and management of articulatory disorders in children and adults.
			484G	Speech Anatomy and Physiology. 3 hours.
				Structures and functions which comprise the speech mechanism and its relation to the production and development of speech and language.
			485G	Introduction to Diagnostic Procedures in Communication Disorders. 3 hours.
				Theory and utilization of the most com-

mon screening and diagnostic techniques in speech pathology. Evaluation procedures for all communicative dysfunctions.

486G Language Disorders. 3 hours. Identification, diagnosis, evaluation, and treatment techniques to be used with language disorders—specifically, aphasia and delayed language problems.

487G Aural Rehabilitation. 3 hours. Principles and procedures of communication and amplification systems for the hearing impaired.

488G The Stuttering Child. 3 hours. The etiology and diagnosis of and treatment programs for stuttering in children.

489G Geriatric Communication Disorders. 3 hours. Prerequisites: Biol 131, HL 443, or permission of instructor. Causes, symptoms and treatment of speech, language and hearing disorders in the aged population.

490G Clinical Practicum in Speech. 3 hours. Supervised clinical experience, including individual and group therapy.

Library Media Education (LME)

501 Organization and Administration of the Instructional Materials Center. 3 hours. Prerequisite: LME 401 and/or consent of instructor. Role of the staff and the function of management in the organization and administration of instructional materials centers.

502 The Library in Society. 3 hours. Types of libraries and their history, laws, standards, and inter-cooperation. Librarianship as a career, professionalism and the freedom to read.

504 The Media Center and the Computer. 3 hours. Prerequisite: Eighteen hours of library science, including LME 401, 406, 408. The use of computers in media centers on a local, national and commercial basis.

506 Cataloging of Non-Book Materials. 3 hours. Prerequisite: LME 406 or equivalent. Classification and cataloging of motion pictures, filmstrips, slides, transparencies, phono-records, pictures, manuscripts, maps, microforms kits, etc.

508 Advanced Reference. 3 hours. Prerequisite: LME 408 or equivalent. Reference materials in humanities, social science, history, pure and applied sciences, and general reference works in bibliography and library science.

509 Investigations in Library Science. 3 hours. Prerequisite: 18 hours of LME, Ed Fnd 500 or the equivalent, and permission of graduate advisor. Independent investigation under the direction of a faculty member.

515 Government Publications. 3 hours. Prerequisite: LME 408 or equivalent. Sources and types of government documents, both state and federal; their acquisition and organization for use.

518 Advanced Children's Literature. 3 hours.

Materials available to meet the needs of children including outstanding authors, illustrators, topical issues, and the reviewing of children's books.

519 Special Topics. 3 hours. Special topics in the field of media services. May be repeated once with a different topic.

531 Media Facilities. 3 hours. Basic considerations in the design of media facilities: equipment, illumination, electrical circuitry, flexible space, electronic learning labs, preparation of specifications, etc.

545 Instructional Graphics. 3 hours. Basic aesthetic understanding and skills needed for design and preparation of instructional graphics. Development of graphic vocabulary and techniques.

547 Instructional Technology. 3 hours. The systematic design, execution, and evaluation of the total process of information transfer. Emphasizes behavioral objectives and the appropriate combinations of human and non-human elements in facilitating optimum learning.

549 Instructional Media Photography. 3 hours. Expands and applies the basic principles of photography and the principles of design and graphics to the preparation of two- and three-dimensional visuals in slide and filmstrip formats.

590 Field Experiences. 3 hours. Guided experience and reading on the design, organization, and administration of media programs; activity log, field visits, projects and evaluation conferences.

599 Thesis Research and Writing. 6 hours.

599c Maintaining Matriculation. 1 to 6 hours.

The following 400-level LME courses may be taken for graduate credit:

401G Library Organization and Administration. 3 hours. Organization and administration of media for access and use; circulation and other library records; maintenance of the media collection; and service to patrons. Field trips may be required.

403G Books and Related Materials for Young People. 3 hours. Principles of selection; reading guidance; materials for information and recreation. Field trips may be required.

405G Recreational Reading, Listening, and Viewing. 3 hours. Emphasizes popular reading and viewing interests of adults in such areas as recreation, inspiration, self-improvement, and information. Field trips may be required.

406G Classification and Cataloging. 3 hours. Classification, descriptive cataloging, main entries, added entries, shelf list, and filing. Laboratory sessions.

407G Literature for Young Adults. 3 hours. Reading interests of young adults and study of selected titles. Methods of working with young adults in public and school libraries.

408G Reference and Bibliography. 3 hours. Study of bibliographies, indexes, dictionaries, encyclopedias, yearbooks, alma-

nacs, directories, atlases, gazettes, and handbooks.

409G Selected Topics in Library Science.

1 to 3 hours. A problematic study under the direction of a faculty member.

410G Storytelling. 3 hours.

Storytelling in work with children. the literature; criteria in selection of materials; practice in oral communication.

411G Creative Experiences for Elementary Children. 3 hours.

Experiences in creative expression: creative play acting, puppetry, creative writing, shadowplays, creative use of audio-visual equipment and materials.

445G Audio-Visual Materials and Methods.

3 hours. Theory relative to the best practices in audio-visual techniques. Laboratory experience. Cross-listed with Elementary Education.

446G Selection, Acquisition, and Evaluation of Non-Print Materials. 3 hours.

Instruction and experience in locating sources of supply for non-print materials and use of appropriate selection aids; acquisition procedures and evaluative techniques appropriate to non-print materials. Cross-listed with Elementary Education.

447G Instructional Television for Media Specialists. 3 hours.

Types of distribution systems, budgeting, personnel requirements, equipment operation and care, and classroom planning between teacher and media specialist. Laboratory experience.

475W-G Workshop in Library Science.

1 to 3 hours. One, two, and three week workshops designed primarily for practicing librarians.

Reading Education (Rdg Ed)

519 Foundations of Reading Instruction. 3 hours.

Analysis of the reading process with emphasis on the psychological and physiological foundations of the reading act.

520 Clinical Diagnosis of Reading Disabilities. 3 hours.

The nature and causes of reading disabilities and investigation of general and specific principles and approaches to diagnosis. Actual case studies using both group and individual tests in diagnosis.

521 Correction of Reading Difficulties (Practicum). 3 hours.

Instructional techniques for use with individuals or groups involved in remedial reading instruction; materials and procedures; clinical experiences with remedial students.

522 Investigations in Reading.

1, 2, or 3 hours. Maximum total credit allowed 3 hours. Individual investigation of the research and descriptive literature in the field of reading.

523 Diagnostic Reading Procedures for Classroom Teachers. 3 hours.

Emphasizes practical methods of reading appraisal, diagnostic procedures, and materials essential for developing teaching strategies in reading instruction.

524	Teaching Reading Skills in the Content Areas. 3 hours. Reading and study skills strategies and techniques to increase student achievement in content-area classes.	536	Seminar in the Teaching of Physical Education. 3 hours. Traditional and recent techniques, methods and knowledge in the practical application of scientific principles to the teaching of physical education and the coaching of sports and games. Investigation in specific problems through lectures, discussion groups, demonstrations, and use of audiovisual aids.	580	The Curriculum. 3 hours. Philosophy, principles and practices of curriculum improvement.
620	Advanced Diagnosis of Reading Problems. 3 hours. Provides experience in advanced testing materials in diagnosing severely retarded readers.	537	Seminar in Science Education. 3 hours. Prerequisite: Permission of instructor. Includes the history and comparative study of science teaching, curriculum and course content changes, materials available, evaluation, methods in science teaching, professional organizations, and research in science education.	599	Thesis Research and Writing. 6 hours.
624	Seminar in Reading Problems. 3 hours. Covers research and descriptive literature related to specific reading problems.	538	Seminar in Social Studies Education. 3 hours. Prerequisite: Permission of instructor. Covers newer concepts in curriculum and methods of instruction as well as current research in social studies education.	599c	Maintaining Matriculation. 1 to 6 hours.
528	Seminar in the Teaching of Secretarial Subjects. 3 hours. Materials, methods, techniques, and devices for teaching typewriting, shorthand, and the related skilled subjects. Review and application of research findings to this area.	539	Seminar in Agriculture Education. 3 hours. Current problems in the organization, teaching supervision, administration and evaluation of agricultural education programs. Investigation, papers, and reports.	604	Management of the Learning Environment I. 3 hours. The first of a two-course sequence designed to enable elementary teachers to utilize Mastery Learning strategies and related teaching skills to increase student achievement and improve student attitudes toward learning.
529	Seminar in the Teaching of Bookkeeping and Basic Business. 3 hours. Purposes, materials, methods, and techniques for teaching bookkeeping and basic business. Review and application of research findings to this area.	540	Seminar in Home Economics Education. 3 hours. Prerequisite: HE 572 or consent of instructor. Current trends in family life education with emphasis on individualized instruction, team teaching and audiovisual aids and their use in improved learning.	605	Management of the Learning Environment II. 3 hours. The second of a two-course sequence designed to enable elementary teachers to utilize Mastery Learning strategies and related teaching skills to increase student achievement and improve student attitudes toward learning.
530	Seminar in English Education. 3 hours. Prerequisite: Permission of instructor. Current methods and materials for junior and senior high school English courses, research and professional trends.	541	School Media Programs. 3 hours. Historical development, exploration of curricular trends and innovations, organizations for library services, materials and equipment available, and problems in school librarianship.	699	Specialist Project. 6 hours.
531	Seminar in Art Education. 3 hours. Prerequisite: Permission of instructor. Curricular trends in art education; methods and materials for teaching and supervising art in the public schools.	542	Seminar in Speech Education. 3 hours. Includes historical development, exploration of curricular trends and innovations and current research and problems.	699c	Maintaining Matriculation. 1 to 6 hours.
532	Seminar in Foreign Language Education. 3 hours. Prerequisite: Permission of Instructor. Trends in foreign language education methods and materials for teaching a foreign language at the secondary and advanced levels of instruction.	543	Interactive Teaching Skills. 3 hours. Cross-listed with EI Ed.	444G	Reading instruction in Junior and Senior High Schools. 3 hours. Principles, psychology and methodologies for teaching both the general and specialized reading skills in the secondary grades.
533	Seminar in Industrial Arts Education. 3 hours. Prerequisite: Permission of instructor. Includes historical development, exploration of curricular trends and innovations, methods and materials of teaching, and current research and problems related to teaching industrial arts.	544	Classroom Teaching Strategies. 3 hours. Cross-listed with EI Ed.	445G	Audio-Visual Materials and Methods. 3 hours. Instruction and laboratory experience in the operation and maintenance of equipment: theory relative to effective practices in audio-visual techniques.
534	Seminar In Mathematics Education. 3 hours. Prerequisite: Permission of instructor. Covers newer concepts in curriculum and methods of instruction, current research and problems in mathematics education.	545	Investigations in Classroom Teaching. 1 to 3 hours. Opportunity for secondary teachers to engage in the concentrated study of specific problems and/or the development of specific skills related to effective classroom instruction.	446G	Selection, Acquisition and Evaluation of Non-Print Materials. 3 hours. Prerequisite: Permission of instructor. Instruction and experience in locating sources of supply for non-print materials and use of appropriate selection aids; acquisition procedures and evaluative techniques appropriate to non-print materials. Cross-listed with LME.
535	Seminar in Music Education. 3 hours. Historical, philosophical and psychological foundations of music education; application of the principles of education to the music program. Emphasis on current trends in educational thought and their implications for instruction, supervision, administration and evaluation in music education.	571	Junior High School Curriculum. 3 hours. Examination of programs designed for the young adolescent. Functions, organizations, planning and evaluation of the curriculum. Includes special curricular areas.	455G	The Junior High School. 3 hours. The junior high/middle school and its role in American education. Philosophy, functions, and total program of early adolescent education.

The following 400-level Sec Ed courses may be taken for graduate credit

444G	Reading instruction in Junior and Senior High Schools. 3 hours. Principles, psychology and methodologies for teaching both the general and specialized reading skills in the secondary grades.
445G	Audio-Visual Materials and Methods. 3 hours. Instruction and laboratory experience in the operation and maintenance of equipment: theory relative to effective practices in audio-visual techniques.
446G	Selection, Acquisition and Evaluation of Non-Print Materials. 3 hours. Prerequisite: Permission of instructor. Instruction and experience in locating sources of supply for non-print materials and use of appropriate selection aids; acquisition procedures and evaluative techniques appropriate to non-print materials. Cross-listed with LME.
455G	The Junior High School. 3 hours. The junior high/middle school and its role in American education. Philosophy, functions, and total program of early adolescent education.
477G	Materials and Methods in Library Science. 3 hours. Prerequisites: Ed 280, Psy 220. Laboratory experiences for the prospective librarian.



COLLEGE OF SCIENCE, TECHNOLOGY AND HEALTH

DEPARTMENTS

Agriculture

Biology

Chemistry

Geography and Geology

Health and Safety

Industrial and Engineering Technology

Mathematics and Computer Science

Physics and Astronomy

DEGREES OFFERED

Master of Public Service (City and Regional Planning)

**Master of Science (Agriculture, Biology, Chemistry,
Computer Science, Geography, Health, Mathematics)**

JOINT DOCTORAL (With University of Louisville)

**Doctor of Philosophy (Aquatic Biology, Chemistry of
Free Radicals)**

Majors and Minors Offered Under the Master of Arts in Education

Agriculture

Biology

Chemistry

Geography

Health

Industrial Technology

Mathematics

Mathematics-Science (major only)

Physics (minor only)

Science (major only)

Major Offered Under the Specialist in Education

Vocational Agriculture

DEPARTMENT OF AGRICULTURE

ENVIRONMENTAL SCIENCE AND TECHNOLOGY BUILDING ROOM 269 (502) 745-3151

James Worthington, Acting Head

Graduate Faculty

**Professors: E. Gray, R. Johnson, G. Jones, J. McGuire,
W. Normand, R. Schneider, J. Worthington**

Associate Professors: A. Bedel, D. Coffey, J. Shirley

Degrees Offered: Master of Science in Agriculture, Master of Arts in Education (Agriculture major or minor), *Master of Public Service (Agriculture option), Specialist in Education (for secondary teachers in the area of vocational agriculture).

Graduate Courses in Agriculture

528	Population Genetics. 3 hours. Prerequisites: Biol 327 and Ag 491 or equivalent. Application of genetic and statistical concepts to populations of domestic animals and plants.	Evaluation of soil fertility and fertilizers; soil-plant relationships; composition and properties of soil in relation to ion intake, nutrition and growth of plants.	598	Seminar. 1 hour. Problems and research in agriculture. Required of all graduate students. May be repeated to a maximum of 3 hours.	
533	Physiology of Lactation. 3 hours. Prerequisite: Ag 243, 330, or Biol 430 or permission of instructor. Anatomy of the mammary gland, hormonal control of mammogenesis, initiation and maintenance of milk secretion, factors affecting level and composition of milk, synthesis of milk. Lecture, 2 hours; lab, 2 hours.	561	Agricultural Production Economics. 3 hours. Production and cost functions, programming and decision-making principles and their application to agriculture.	599	Thesis Research and Writing. 6 hours.
545	Ruminant Nutrition. 3 hours. Prerequisite: Ag 448, Biol 446 or equivalent, or permission of instructor. Rumen development and function, products of fermentation, nutrient requirements, absorption and metabolism, symptoms of deficiency and toxicity.	583	Curriculum Development and Determining Content in Vocational Agriculture. 3 hours. Principles of curriculum development, a local survey, and development of a course of study.	599c	Maintaining Matriculation. 1 to 6 hours.
546	Advanced Animal Breeding. 3 hours. Prerequisites: Ag 446 and 428 or permission of instructor. Application of population genetics to the economic improvement of farm animals, phenotypic and genetic relationships, role of selection in changing populations, formulation and application of breeding plans. Lecture, 2 hours; lab, 2 hours.	584	Program Development in Vocational Agriculture. 3 hours. Inservice course for new and returning vo-ag teachers. Covers planning, conducting, and following through instructional programs for secondary, post-secondary, and/or adult students.	675	Advanced Topics in Agriculture. 1 to 3 hours. Prerequisites: Permission of instructor. Problems and scientific developments of current interest. May be repeated to a maximum of 10 hours with different topics.
547	Advanced Animal Nutrition. 3 hours. Prerequisite: Ag 448, Biol 446 or equivalent, or permission of instructor. Individual nutrient requirements of monogastric animals, structure, metabolism and function of each nutrient class, interrelationship of nutrient classes, deficiency and toxicity symptoms.	589	Special Problems in Agriculture Education. 1 to 3 hours. Prerequisite or corequisite: Student teaching. Supervised individual study in vocational agriculture education. May be repeated to a maximum of 6 hours.	400G	Plant Physiology. 3 hours. Prerequisites: Biol 248, 249 and two semesters of chemistry. The function of plant systems. Lecture, 2 hours; lab, 2 hours.
551	Advanced Soil Fertility. 3 hours. Prerequisite: Ag 351 or permission of instructor.	590	Experimental Design and Data Analysis. 3 hours. Prerequisite: Ag 491 or permission of instructor. Statistical consideration in experimental design: covariance, multiple regression, factorial design, incomplete block designs, etc.	401G	Landscape Plants I. 3 hours. Prerequisites: Ag 110, Biol 305-306. Identification, recognition, and use of deciduous trees, shrubs and herbaceous plants in the landscape. Introduction to evergreen shrubs and trees, fall flowering bulbs, and perennials.
		597	Special Problems in Agriculture. 1 to 3 hours. Prerequisites: Permission of instructor. Supervised individual study in agriculture. May be repeated to a maximum of 9 hours.	402G	Landscape Plants II. 3 hours. Prerequisite: Ag 401 or permission of instructor. Identification, recognition, and use of landscape plants. Emphasis on evergreens, annuals, perennials, and bulbs. Winter effect and flowering sequence of deciduous trees and shrubs.
				403G	Landscape Design and Construction. 3 hours. Prerequisite: Ag 402. Design of residential and commercial landscapes. Techniques and materials for construction of landscape features

*MPS option temporarily suspended

Master of Science in Agriculture

Applicants for this degree should have an undergraduate major or area of concentration in agriculture or a related science. Persons admitted with a non-agriculture undergraduate degree may be required to complete pertinent undergraduate courses in agriculture, at the discretion of the departmental graduate committee. Admission requirements are a minimum overall undergraduate grade point average of 2.50 or a Graduate Record Examination score of 1200 for the combined quantitative, verbal, and analytical sections of the General Test.

Master of Arts in Education (Agriculture major or minor)

This program provides graduate coursework in agriculture and meets certification requirements. The student majoring in agriculture shall take a minimum of 18 hours in the major area; the student minoring in agriculture shall take a minimum of 12 hours in agriculture and related areas as designated by the departmental advisor. The remaining hours, in both cases, will be taken in professional education.

Specialist in Education (See Department of Teacher Education)

such as decks, patios, pools, etc.

404G Landscape Maintenance. 3 hours. Prerequisite: Ag 110, 401, or 402. Maintenance of landscape plants including shrubs, annuals, perennials, and turf; proper use of equipment, fertilizers, and pesticides; landscape business practices.

409G Weed Science. 3 hours. Identification of prominent weed species; relationship of weeds to crop production problems; physical and chemical control measures. Lecture 2 hours, lab 2 hours.

410G Crop Protection. 3 hours. Prerequisite: Chem 107 or equivalent and two plant science courses. Control of insects, weeds, diseases, and animal pests which reduce the yields or values of Kentucky crops.

411G Turfgrass Management. 3 hours. Prerequisite: Ag 110. Adaptation, identification, uses and fundamental principles for establishing and maintaining quality turf.

412G Modern Fruit Science. 3 hours. Prerequisite: Ag 311 or 312 or permission of instructor. Selected problems in planting, management, production and varieties of deciduous fruits and nuts.

413G Principles and Practices of Plant Propagation. 3 hours. Prerequisite: Biol 248 or Ag 312 or permission of instructor. Fundamental principles and basic techniques of plant propagation.

414G Crop Improvement. 3 hours. Prerequisites: Six hours of plant science and graduate standing. Identification, development, and utilization of genetic differences in the improvement of cultivated plants.

415G Greenhouse Management. 3 hours. Prerequisite: 6 hours of plant science. Structures, equipment and general techniques and procedures for commercial production of ornamental and vegetable plants in the greenhouse.

416G Commercial Floriculture I. 3 hours. Prerequisite: AG 415 or permission of instructor. Cultural requirements and propagation of plants commonly grown during the fall season in commercial greenhouses. Lecture, 2 hours; lab, 2 hours.

417G Commercial Floriculture II. 3 hours. Prerequisite: Ag 415 or permission of instructor. Cultural requirements and propagation of plants commonly grown during the spring season in commercial greenhouses. Lecture, 2 hours; lab, 2 hours.

418G Landscaping for Modern Living. 3 hours. Prerequisite: Ag 312 or permission of instructor. Blending of house and lawn, building materials, and plant selection to create attractive surroundings for everyday living.

419G Vegetable Production. 3 hours. Prerequisites: Ag 110, 250, and Biol 148. Production and utilization of vegetable crops with emphasis on environmental factors influencing growth and handling of vegetables.

421G Forage Crops. 3 hours. Prerequisite: Ag 110, 250, and Biol 148. Distribution, improvement, establishment, production and storage of forage crops, soil-plant-animal complex as relates to the morphology, physiology and utilization of forage.

422G Field Crops. 3 hours. Prerequisite: Ag 110, 250, and Biol 148 or permission of instructor. Distribution, improvement, morphology, culture, harvesting, and utilization of field crops.

428G Population Genetics. 3 hours. (Cross-listed with Biology 428) Prerequisite: Biol 327 or equivalent. Application of statistical principles to biological population in relation to give frequency, zygotic frequency, mating systems and the effects of selection, mutation and migration on equilibrium population.

430G Dairy Technology. 3 hours. Prerequisite: Ag 140. Dairy cattle in modern agriculture. Nutrition, breeding and management of dairy cattle.

438G Dairy Microbiology. 3 hours. Prerequisite: Biol 207 or equivalent, or permission of instructor. Microbiological principles and their application to production and processing of milk and milk products, identification, and control of microorganisms in dairy products.

443G Physiology of Reproduction in Domestic Animals. 3 hours. Prerequisite: Ag 243 or Biol 330 or permission of instructor. Physiology and endocrinology of reproductive systems; anatomical, physiological, and biochemical basis of reproduction; artificial breeding, synchronized estrus and related topics.

446G Animal Breeding. 3 hours. Prerequisites: Ag 140 and Biol 148. Application of genetic and statistical principles to breeding and improvement of farm animals; the role of selection in changing populations.

448G Principles of Animal Nutrition. 3 hours. Prerequisite: Ag 345. Principles of nutrition basic to animal feeding, chemical and physiological aspects of nutrition, techniques in nutrition research.

449G Laboratory Methods and Techniques in Animal Nutrition. 3 hours. Prerequisites: Ag 448, Chem 122 or equivalent, or permission of instructor. Laboratory methods for determining major minerals and vitamins in feeds, proximate analysis of feeds, products of fermentation, feed residues and contamination. Lecture 1 hour, lab 4 hours.

450G Soil Chemistry. 3 hours. Prerequisites: Ag 250, Chem 107 or 122, or permission of instructor. Analytical techniques in soil chemistry and soil fertility studies and nutrient determination; colloidal systems; chemical properties related to plant nutrition.

451G Soil Management. 3 hours. Evaluation of characteristics which determine the productive potential of soils and use of this knowledge and the prevailing climate to maximize production or net income.

452G Soil Microbiology. 4 hours. Prerequisites: Ag 250 and Biol 207, or permission of instructor. Soil microbial populations and systems and their influence on plant nutrition. Soil organic matter, its decomposition and associated microorganisms; oxidation-reduction process; nitrogen fixation.

453G Soil Formation, Classification and Mapping. 3 hours. Prerequisite: Ag 250. Soil origin; methods of soil survey; classification schemes; profile description, mapping and interpretation information, with emphasis on Kentucky soils.

454G Land-Use and Conservation. 3 hours. Prerequisite: Ag 250 or permission of instructor. Economic utilization of land for agricultural recreation and public purposes; interpretation and application of soil conservation; public and industrial use; practice in designing land-use maps.

455G Soil Physics. 3 hours. Prerequisites: Ag 250, Physics 201 and 207, or permission of instructor. Relation of physical properties of soil to plant growth, particle-size distribution, soil structure, moisture, and temperature.

460G Agricultural Policy. 3 hours. Prerequisite: Ag 260. The place of agriculture in the national economy; objectives of agricultural policy; appraisal and proposed agricultural programs; legislation for economic action.

461G Advanced Farm Management. 3 hours. Prerequisite: Ag 361 or permission of instructor. Identification, analysis, and solution of problems of farm organization and operation. Case studies and field trips to situation farms in South Central Kentucky. Lecture, 2 hours; lab, 2 hours.

463G Agricultural Finance. 3 hours. Prerequisite: Ag 361 or permission of instructor. Farm finance problems including capital requirements, investment decisions, budgeting techniques, etc. Lending agencies and alternative means of acquiring capital.

470G Agricultural Materials Handling. 3 hours. Prerequisite: Ag 374 or permission of instructor. Principles of operation. Functional analysis and design of agricultural handling systems. Includes conveyance, drying, sizing, mixing and sorting machines for handling of farm crops and animals.

475G Selected Topics in Agriculture. 1 to 3 hours. Prerequisite: Permission of instructor. Special topics on significant problems and scientific developments of current interest in agriculture. Lecture and assignments are variable with credit. May be repeated with change in content.

473G Geography of Agriculture. 3 hours. Prerequisite: Geog 250 or Ag 260, or permission of instructor. Regional patterns of world agricultural production. Ecological and economic factors and cultural preferences as related to the spatial patterns of crops and agricultural types.

482G Development of Agricultural Resources for Rural Recreation. 3 hours. Developing facilities for recreational enterprises. Topics include enterprise selection, program planning, site selection, financing, and construction.

487G Methods in Teaching Vocational Agriculture. 3 hours. Course organization, methods, farming

programs, employment training, and Future Farmers of America activities.

488G Young Farmer and Adult Education in Agriculture. 4 hours. Organization and program planning for classes in post-high school vocational agriculture and technical programs for young and adult farmers.

491G Data Analysis and Interpretation. 3 hours. Prerequisite: Math 100 or permission of instructor. Statistical models and use of samples, variation, statistical measures, distributions, tests of significance, analysis of variance, regression, correlation and chi-square as related to interpretation and use of scientific data.

DEPARTMENT OF BIOLOGY

THOMPSON COMPLEX—NORTH WING
ROOM 201 (502) 745-3696

Jeff H. Jenkins, Head

Graduate Faculty

Professors: D. Bailey, T. Coohill, G. Dillard, L. Elliott, L. Gleason, M. Houston, R. Hoyt, J. Jenkins, K. Nicely, R. Prins, H. Puckett, H. Shadowen, F. Toman, J. Winstead, A. Yungbluth

Associate Professors: B. Ferrell, S. Ford, E. Hoffman, D. Skean

Degrees Offered: Master of Science in Biology, Master of Arts in Education (Biology major or minor), Doctor of Philosophy (in cooperation with the University of Louisville) in Aquatic Biology.

Admission requires the equivalent of an undergraduate major in biology including two laboratory courses each in inorganic chemistry and physics and one course in organic chemistry. Exceptions are made in favor of superior students whose undergraduate degrees are in allied subject matter fields.

A cooperative graduate program leading to the Doctor of Philosophy with specialization in Aquatic Biology is administered by the departments of biology of Western Kentucky University and the University of Louisville. Interested students may obtain information about the program from Dr. R. Hoyt.

Graduate Courses in Biology

501 Biological Perspectives I. 3 hours. Prerequisite: Science area major or minor. Designed for in-service teachers. Advances in the biological sciences; practical applications of biological principles. Includes the chemical and cellular basis of life, metabolism, reproduction, and development. Not applicable to MS in biology. Lecture, 2 hours; lab, 2 hours. (Summers on demand).

502 Biological Perspectives II. 3 hours. Prerequisite: Science area major or minor; Biol 501 desirable. Designed for in-service teachers. Advances in the biological sciences; practical applications of biological principles. Includes the origin and early evolution of

life, viruses and monera, the plant kingdom, the animal kingdom, biological evolution, and ecology. Not applicable to MS in biology. Lecture, 2 hours; lab, 2 hours. (Summers on demand).

503 Ultrastructure and Cellular Mechanisms. 3 hours. Prerequisite: Biol 411 or equivalent. Review of research findings that have led to present ideas of the relationship between cell structure and function. Lecture. (Spring of even-numbered years).

505 Biogeography. 3 hours. See Department of Geography and Geology.

511 Limnology. 4 hours. Physical, chemical, and biological

Master of Science in Biology

Both Plan A (Thesis) and Plan B (non-thesis) are available. Students needing specialization within biology and desiring a related research experience should follow Plan A. The thesis is based upon original research conducted under the direction of a departmental graduate faculty member. The Plan B program is designed for students who desire additional training for biological or biologically-related professions. Candidates following Plan B are required to take Biology 516—Investigations in Biology (2 or 3 hours) as an introduction to research.

The research tool, under both plans, may be met by demonstrating (1) a reading knowledge of a foreign language or (2) competency in statistical methodology, computer programming, or electron microscopy.

Master of Arts in Education (Biology major or minor)

This program is designed for the preparation and strengthening of secondary school science teachers. The major requires 21 hours of coursework in biology, and the minor requires 12 to 15 hours in biology. In both cases, the remainder of the required 30 hours is taken in professional education.

Students who desire a breadth of coursework in the sciences may major in the Science Area of Concentration under the MA in Education program. Students following this option must have all biology courses approved by the appropriate advisor in the Department of Biology.

TECH AQUA BIOLOGICAL STATION

Western Kentucky University is a charter member of the Tech Aqua Development Consortium which operates a biological station on Center Hill Lake near Cookeville, Tennessee. A variety of field biology courses is offered during two five-week sessions each summer. Students interested in the Tech Aqua Program should contact Dr. H. Shadowen of the Department of Biology for additional information.

aspects of bodies of freshwaters with emphasis on water as a biological environment. Lecture, 2 hours; lab, 4 hours. (Fall of odd-numbered years)

515 Plant Ecology. 4 hours. Prerequisites: Biol 305 and permission of instructor. Ecological concepts and their application to experimental approaches for studying the interaction of plants with their environment. Lecture, 2 hours; lab, 4 hours. (Spring of even-numbered years)

516 Investigations in Biology. 1 to 3 hours. Prerequisite: Permission of research project director. Research project completed under faculty supervision. Not applicable to MS Plan A. (Every semester and summer)

518	Aquatic Mycology. 4 hours. Prerequisites: Biol 305, 306 or equivalent microbiology. Morphology and systematics of representative aquatic fungi found in central Kentucky. Lecture, 2 hours; lab, 4 hours. (Fall of odd-numbered years)	570	Immunology. 4 hours. The biology of the immune response; the mechanism, manipulation, and effects of the means by which higher animals maintain their organic integrity. Lecture, 2 hours; lab, 4 hours. (Fall of odd-numbered years)	408G	Invertebrate Zoology. 4 hours. Prerequisites: Biol 318, 319. Phyla of invertebrate animals, including their taxonomy, morphology, physiology, development, and evolution. Lecture, 2 hours; lab, 4 hours. (Spring of odd-numbered years)
520	Aquatic Vascular Plants. 4 hours. Prerequisite: Biol 305 or permission of instructor. Higher plants of aquatic and marsh habitats, their collection and identification, association of species, adaptations to the aquatic environment, and ecological factors limiting their distribution. Lecture 2 hours, lab 4 hours. (On demand)	580	Plant Biochemistry. 3 hours. Prerequisite: Chem 314 or 342. The occurrence, properties, function, and metabolism of organic compounds found in plants. Lecture. (Summer of odd-numbered years)	411G	Cell Biology. 3 hours. Prerequisites: Biol 148, 149 and Organic Chemistry. Morphological and chemical makeup of cells, physical and chemical properties of the cell and modern techniques for investigation of cellular functions. Lecture. (Every fall and spring)
527	Advanced Genetics. 4 hours. Prerequisite: Biol 327 or permission of instructor. Advanced Mendelian principles and post-Mendelian genetics with emphasis on recently developed areas of research. Lecture 2 hours; lab, 4 hours. (Fall of even-numbered years)	589	Internship in Biology. 3 hours. Practical experience in a supervised work situation with a cooperative business, industry, or governmental agency, emphasizing application of advanced knowledge and skills in specified areas of biology.	412G	Cell Biology. 1 hour. Pre/corequisite: 411G. Laboratory correlated with Biol 411G. Two hours per week. (Every spring)
528	Microbial and Molecular Genetics. 3 hours. Prerequisite: Biol 446, 411 or equivalent or permission of instructor. Genetics at the molecular level using microorganisms as research tool.	591	Aquatic Biology. 4 hours. Plant and animal communities of freshwater lotic and lentic habitats. Lecture, 2 hours; lab, 4 hours. (On demand)	416G	Systematic Botany. 4 hours. Prerequisite: Biol 348 or permission of instructor. Variation, phylogeny, classification and identification of flowering plants. (Fall of odd-numbered years)
530	Animal Behavior. 4 hours. Prerequisite: Biol 318, 319 or equivalent animal science and permission of instructor. Development, physiology, ecology, and evolution of behavioral patterns in invertebrates and vertebrates. (Spring of odd-numbered years)	592	Freshwater Ecology. 4 hours. Principles of ecology employing the aquatic ecosystem as the area of investigation. (Summers of even-numbered years)	418G	Mycology. 4 hours. Prerequisites: Biol 305, 306. A comparative morphological and physiological study of fungi. Lecture 3 hours, lab 2 hours. (Fall of even-numbered years)
540	Algal Systematics and Ecology. 4 hours. Prerequisite: Biol 419 or permission of instructor. Systematics and ecology of freshwater algae with emphasis on the composition, periodicity, and succession of regional phytoplankton and periphyton communities. Lecture, 2 hours; lab, 4 hours, (Fall of even-numbered years)	598	Graduate Seminar. 1 hour. Special topics in biology. (Every fall and spring)	419G	Freshwater Algae. 3 hours. Morphology and systematics of freshwater algae. Emphasis on regional flora. Lecture, 1 hour; lab, 4 hours. (Spring of even-numbered years)
550	Aquatic Invertebrates. 3 hours. Prerequisite: Biol 408 or permission of instructor. Taxonomy and ecology of vertebrates in lakes, ponds, and streams. Lecture, 1 hour; lab, 4 hours. (Spring of even-numbered years)	599	Thesis Research and Writing. 6 hours.	428G	Population Genetics. 3 hours. See Department of Agriculture.
560	Advanced Parasitology. 4 hours. Prerequisite: Biol 460 or permission of instructor. The culture, determination of physiological requirements, experimental infection of hosts, and host-specificity of parasites. Lecture, 2 hours; lab, 4 hours. (Spring of odd-numbered years)	599c	Maintaining Matriculation. 1 to 6 hours.	431G	Radiation Biophysics. 4 hours. See Department of Physics and Astronomy.
562	Intermediary Metabolism. 3 hours. See Biochemistry.	600	Internship in College Instruction. 1 hour. Designed for prospective teachers of biology. Staff direction in preparing and giving lectures. Includes analyses of presentation and techniques. May be repeated.	432G	Advanced Animal Physiology. 3 hours. Prerequisites: Biol 330, 331. Selected systems and topics in physiology with emphasis on the biophysical approach. Lecture. (Spring of even-numbered years)
563	Enzymology. 3 hours. See Biochemistry.	675	Advanced Topics in Biology. 1 to 3 hours. Selected topics in Biology. (On demand)	436G	Biophysics Seminar. 1 hour. See Department of Physics and Astronomy.
564	Enzymology Laboratory. 1 hour. See Biochemistry.	799	Doctoral Research. 1 to 6 hours.	446G	Biochemistry. 3 hours. See Biochemistry.
569	Professional Work/Career Experience in Biology. 3 hours. Practical experience in a supervised work situation with a cooperative business, industry, or governmental agency, emphasizing application of advanced knowledge and skills in specified areas of biology.	404G	Techniques and Theory of Electron Microscopy. 3 hours. Fundamentals of electron microscopy including basic theory, techniques for specimen preparation and photography and operation of the electron microscope. Requires independent research project involving interpretation of data obtained by using the electron microscope. Lecture, 2 hours; lab, 2 hours. (Every fall)	447G	Biochemistry Laboratory. 2 hours. See Biochemistry.
407G	Virology. 3 hours. Prerequisites: Biol 148, 149, and a microbiology course. Bacterial, animal, and plant viruses with special emphasis on the chemistry and replication of bacterial viruses. (Spring of odd-numbered years)	456G	Ichthyology. 4 hours. Prerequisites: Biol 318, 319 and permission of instructor. Fishes of the world, their physiology, structure, behavior, and ecology. Emphasis on the collection and identification of freshwater species of Kentucky. Lecture, 2 hours; lab, 4 hours. (Fall of odd-numbered years)		
458G	Fishery Biology. 3 hours. Biological aspects of population of freshwater fishes. Emphasizes reproduction and development, food and feeding habits, pollution effects, etc. Lecture, 2 hours; lab, 2 hours. (Spring of odd-numbered years)	459G	Mammalogy. 3 hours. Prerequisites: Biol 318, 319. Taxonomy, life history and ecology of the mammals. Laboratory work includes field		

The following 400-level courses may be taken for graduate credit

400G	Plant Physiology. 3 hours. Prerequisites: Biol 305, 306, and two semesters of chemistry. The functioning of plant systems. Lecture, 2 hours; lab, 2 hours. (Fall of odd-numbered years)
404G	Techniques and Theory of Electron Microscopy. 3 hours. Fundamentals of electron microscopy including basic theory, techniques for specimen preparation and photography and operation of the electron microscope. Requires independent research project involving interpretation of data obtained by using the electron microscope. Lecture, 2 hours; lab, 2 hours. (Every fall)
407G	Virology. 3 hours. Prerequisites: Biol 148, 149, and a microbiology course. Bacterial, animal, and plant viruses with special emphasis on the chemistry and replication of bacterial viruses. (Spring of odd-numbered years)

studies and collection and study of specimens in the laboratory. Lecture, 2 hours; lab, 2 hours. (Fall of even-numbered years)	Two hours per week. (On demand)	477G Morphology of Non-Vascular Plants. 4 hours. Prerequisites: Biol 305 and 306. Structure, development and phylogenetic relationships of the algae, fungi and bryophytes. Lecture, 3 hours; lab, 2 hours. (On demand)
460G Parasitology. 4 hours. Prerequisites: Biol 318, 319. The morphology, physiology, life histories, control and economic significance of representative species. Lecture, 2 hours; lab, 4 hours. (Fall of even-numbered years)	467G Biochemistry II. 3 hours. See Biochemistry.	
462G Bioinorganic Chemistry. 3 hours. See Biochemistry.	470G Pathogenic Microbiology. 4 hours. Prerequisites: Biol 309, 310, and permission of instructor. Organisms causing disease with emphasis on bacteria. Includes pathogenic bacteria, viruses, rickettsiae, fungi and protozoa. Lecture, 2 hours; lab, 4 hours. (Every fall)	478G Morphology of Vascular Plants. 4 hours. Prerequisites: Biol 305 and 306 or 477. Structure, development and phylogenetic relationships of the primitive vascular plants, gymnosperms and angio-sperms. Lecture, 2 hours; lab, 4 hours. (Fall of even-numbered years)
464G Endocrinology. 3 hours. Prerequisites: Biol 148 and 318, 319. Biol 330 recommended. Structure and function of the endocrine glands and their role in physiological communication and regulation. (Fall of odd-numbered years)	472G Food Microbiology. 4 hours. Prerequisites: Biol 307 and 308 or 309 and 310. Preservation, fermentation and spoilage of foods including a study of food and milk microbiology. Lecture, 2 hours; lab, 4 hours. (Spring of even-numbered years)	485G Field Biology. 3 hours. Two-week camping field experience on a specific biological topic, preceded and followed by introductory and evaluative sessions. (Summer sessions only)
465G Endocrinology. 1 hour. Corequisite: Biol 464G. Laboratory correlated with Biology 464G.	475G Selected Topics in Biology. 1 to 3 hours. Significant problems and developments of current interest in biology. (Every semester and summer)	491G Data Analysis and Interpretation. 3 hours. See Department of Agriculture.

DEPARTMENT OF CHEMISTRY

THOMPSON COMPLEX—CENTRAL WING
ROOM 444 (502) 745-3547

Laurence J. Boucher, Head

Graduate Faculty

Professors: L. Boucher, R. Farina, C. Henrickson, N. Holy, N. Hunter, W. Lloyd, J. Reasoner, J. Riley, L. Shank, C. Wilkins, G. Wilson

Associate Professors: J. Chamberlin, D. Hartman, R. Hessley, E. Pearson

Degrees Offered: Master of Science in Chemistry, Master of Arts in Education (Chemistry major or minor), Doctor of Philosophy in Chemistry (in cooperation with the University of Louisville).

Master of Science in Chemistry

Candidates for admission to this program must submit evidence of satisfactory completion of undergraduate curricula in chemistry. Graduates of American colleges and universities are urged to submit, at the time of application, test scores from the Graduate Record Examination Subject Test and the Graduate Record Examination General Test. Students admitted without these scores should take the tests during their first semester on campus. Graduates of foreign colleges and universities are required to submit test scores from Graduate Record Exam (General Test), Graduate Record Exam (Subject Test), and the Test of English as a Foreign Language (TOEFL) as a part of their applications for admission to graduate studies in chemistry.

The program may be planned to emphasize one of five interdisciplinary areas: analytical, coal, inorganic, organic, physical, or biochemistry.

Course requirements (except for coal chemistry option) are as follows:

Chem 435G—Analytical Chemistry
Chem 580—Chemical Skills
Chem 550—Advanced Physical Chemistry
Chem 581—Spectroscopy
Chem 598—Seminar
Chem 599—Thesis Research and Writing

Two courses from the following:

Chem 420G, Chem 540, Chem 446G

Two courses from the following:

Chem 446G, 462G, 521, 531, 541, 551, 562

Course requirements for coal chemistry option are as follows:

Chem 590—Coal Chemistry
Chem 540—Organic Reactions
Chem 435G—Analytical Chemistry
Chem 550—Advanced Physical Chemistry I
Chem 420G—Inorganic Chemistry
Chem 591—Coal Chemistry Laboratory
Chem 581—Spectroscopy
Geol 511—The Dynamic Earth or Chem 580—Chemical Skills
Chem 599—Thesis Writing and Research

Students accepted to the cooperative program will complete Chem 596 through off-campus research for one summer and one semester.

Candidates for the MS must maintain a grade point average of at least 3.0 in all chemistry courses, including research.

The thesis (required) is based on the results of an experimental laboratory investigation under the direction of a member of the graduate faculty within the Department of Chemistry.

The research tool may be met by demonstrating the ability to translate a modern foreign language (German, Rus-

sian, or French). If the candidate elects a research tool other than the language requirement, it must be approved by the research advisor, the head of the chemistry department, and the graduate dean.

A student who wishes to pursue an interdisciplinary program of study may obtain permission from the department head to take fewer than 33 hours in chemistry, provided the "outside" coursework is in an allied science and that all other departmental requirements are met.

Master of Arts in Education (Chemistry major or minor)

This program is designed especially for the preparation and strengthening of secondary school science teachers.

For a subject-matter major in chemistry, the MA in Education student must complete a minimum of 12 hours of coursework in chemistry. The remaining six hours of the 18-hour major may be taken in chemistry or in a related subject-matter area. The student pursuing a major in an allied subject-matter area may qualify for a minor in chem-

istry with the completion of a minimum of eight hours of coursework in chemistry. Students who have not previously completed a year of physical chemistry are strongly urged to take Chemistry 450 and 452; with prior approval these courses may be counted for credit toward the MA in Education degree.

Students desiring a breadth of coursework in the sciences may major in the Science Area of Concentration. The chemistry courses taken under this option must be approved by the advisor in the science area and by the advisor in secondary education.

Doctor of Philosophy

A cooperative graduate program leading to the Ph.D. with specialization in chemistry of free radicals and spectroscopy is administered by the Departments of Chemistry of Western Kentucky University and the University of Louisville.

Graduate Courses in Chemistry

500 Fundamentals of Chemistry. 3 hours. Prerequisite: Undergraduate minor in chemistry.

Fundamental principles, theories, and laws of chemistry. (Not applicable to the MS degree)

502 Fundamentals of Modern Chemical Analysis. 3 hours. Prerequisite: Undergraduate minor in chemistry.

Modern methods of chemical analysis including an introduction to instrumental analysis. (Not applicable to the MS degree)

503 Fundamentals of Modern Chemical Analysis Laboratory. 1 hour. Corequisite: Chem 502.

Includes experiments using the instruments and techniques discussed in the lecture.

516 Investigations in Chemistry. 1 to 3 hours.

Review of chemical literature on topics of individual interest. Includes reports and proposals for further research. (Not applicable to the MS degree)

520 Advanced Inorganic Chemistry I.

3 hours. Prerequisites: Chem 452 and 420 or equivalent. Various aspects of coordination chemistry.

521 Advanced Inorganic Chemistry II.

3 hours. Prerequisite: Chem 520 or permission of instructor. Current theories of inorganic reaction mechanisms.

531 Advanced Analytical Chemistry.

3 hours. Prerequisite: Chem 435 or permission of instructor. Survey of selected topics in modern instrumental methods of chemical analysis. Includes instrumental techniques not covered in Chem 435.

540 Organic Reactions. 3 hours.

Prerequisite: Permission of instructor. Modern synthetic methods used in organic chemistry.

541 Advanced Organic Chemistry II. 3 hours. Prerequisites: Org Chem 342 and Phys Chem 452. Modern physical-organic chemistry including bonding, stereochemistry, reaction mechanisms, concerted reactions, photochemistry, and free-radical reactions.

550 Advanced Physical Chemistry I. 3 hours. Prerequisites: Chem 452 and Math 227 or equivalents. Covers thermodynamics, kinetics and molecular structure in preparation for graduate study or research.

551 Advanced Physical Chemistry II. 3 hours. Prerequisite: Chem 550 or equivalent. Continuation of basic physical chemistry concepts. Further study in the areas of thermodynamics, kinetics and molecular structure at the graduate research level.

562 Intermediary Metabolism. 3 hours. See Biochemistry.

569 Internship in Chemistry I. 3 hours. Practical experience in a supervised work situation with a cooperating business, industry, or governmental agency. Emphasizes application of knowledge and skills in chemistry.

570 Lecture Demonstration Techniques. 3 hours. Prerequisite: Chem 452 or permission of instructor.

The design and operation of meaningful lecture demonstrations in chemistry. (Not applicable to the MS degree)

580 Chemical Skills. 3 hours. Skills in the use of the library, glass working, and the laboratory.

581 Spectroscopy. 3 hours. Prerequisites: Chem 342 and 452 or 550. Application of nuclear magnetic resonance, ultraviolet, infrared and mass spectrometry to solving chemical structures.

589 Internship in Chemistry II. 3 hours. Practical experience in a supervised work situation with a cooperating business, industry, or governmental agency. Emphasizes application of knowledge and skills in chemistry.

590 Coal Chemistry. 3 hours. Prerequisites: Org Chem 342 and Phys Chem 452 or 412. The chemistry of coal-derived products.

591 Coal Chemistry Laboratory. 3 hours. Prerequisite: Chem 330 or equivalent. Techniques of classical coal analysis, as specified by the American Society for Testing and Materials (ASTM). Also covers recent developments in methods and instrumentation used in coal analysis.

596 Cooperative Research I. 11 hours. Prerequisite: Student must have completed one academic year of coursework for the MS-Coal Chemistry option. Research at a cooperating laboratory leading to a thesis in coal chemistry.

597 Cooperative Research II. 11 hours. Prerequisite: Student must have completed one academic year of the MS-Coal Chemistry option. Research at a cooperating laboratory leading to a thesis in coal chemistry.

598 Graduate Seminar. $\frac{1}{2}$ hour.

599 Thesis Research and Writing. 6 hours.

599c Maintaining Matriculation. 1 to 6 hours.

799 Doctoral Research in Chemistry. 1 to 6 hours.

799c Maintaining Matriculation. 1 to 6 hours.

The following 400-level courses may be taken for graduate credit.

412G Introduction to Physical Chemistry. 4 hours.

Prerequisites: Chem 122-123 and Math 125. Chemical principles involved in thermodynamics, kinetics, equilibrium, etc. Specifically for secondary education majors and those students not qualifying for the Chemistry 350-352 sequence.

413G Introductory Physical Laboratory.

1 hour. Prerequisites: Chem 230, Math 125. Corequisite: Chem 412.

420G Inorganic Chemistry. 3 hours. Prerequisites or corequisites: Chem 352-353. Atomic and molecular structure, bonding theory, ionic substances, electron deficient compounds, acid-base theory and coordination chemistry.	446G Biochemistry. 3 hours. See Biochemistry.	467G Biochemistry II. 3 hours. See Biochemistry.
432G Modern Methods of Chemical Analysis. 3 hours. Methods and instrumentation used in modern chemical analysis, with emphasis on application rather than theory. (Not applicable to the MS degree)	447G Biochemistry Laboratory. 2 hours. See Biochemistry.	470G Chemistry for the "Middle School." 4 hours. Prerequisite: Chem 108 or 123 or permission of instructor. Chemical theories and principles in the middle school science curricula. (Elective credit only)
435G Analytical Chemistry. 4 hours. Prerequisites: Chem 452-453. Modern instrumental methods of analysis including spectro photometric, electroanalytical and chromatographic techniques.	450G Physical Chemistry I. 3 hours. (Not applicable to MS degree)	475G Advanced Topics in Chemistry. 1 to 3 hours. Topics in analytical, biological, inorganic, organic, physical and polymer chemistry. May be repeated with a different topic.
	451G Physical Chemistry Laboratory. 1 hour.	476G Advanced Laboratory Investigations in Chemistry. 2 hours. Work in analytical, biological, inorganic, organic or physical chemistry. May be repeated with a different topic. (Not applicable to MS degree)
	452G Physical Chemistry II. 3 hours. (Not applicable to MS degree)	
	453G Physical Chemistry Laboratory. 1 hour.	
	462G Bioinorganic Chemistry. 3 hours. See Biochemistry.	

BIOCHEMISTRY

THOMPSON COMPLEX—CENTRAL WING
(502) 745-3457

Graduate Faculty

Professors: R. Farina, M. Houston, F. Toman

Associate Professor: D. Hartman

Graduate Courses in Biochemistry

562 **Intermediary Metabolism.** 3 hours.
Prerequisite: Biochem 446.
The metabolic pathways of carbohydrates, lipids, and proteins. Lecture. (Fall)

563 **Enzymology.** 3 hours.
Prerequisites: Biochem 446 and 447.
Includes kinetics and mechanisms for reactions of biological significance. Lecture. (On demand)

564 **Enzymology Laboratory.** 1 hour.
Corequisite or prerequisite: Biochem 563.
The techniques of enzyme isolation and purification coupled with kinetic studies. Three hours per week. (On demand)

580 **Plant Biochemistry.** 3 hours.
Prerequisite: Chem 314 or 340.
The occurrence, properties, function, and metabolism of many organic compounds found in plants. Lecture. (Summer of odd-numbered years)

The following 400-level courses may be taken for graduate credit

400G **Plant Physiology.** 3 hours.
See Department of Biology.

411G **Cell Biology.** 3 hours.
See Department of Biology.

412G **Cell Biology Laboratory.** 1 hour.
See Department of Biology.

446G **Biochemistry.** 3 hours.

580 **Plant Biochemistry.** 3 hours.
Prerequisite: Chem 314 or 340.
Biochemical compounds and their role in metabolism. Lecture. (Fall, spring)

447G **Biochemistry Laboratory.** 2 hours.
Corequisite or prerequisite: Biochem 446.
Selected experiments which illustrate biochemical principles. Six hours per week. (Spring)

462G **Bioinorganic Chemistry.** 3 hours.
Prerequisite: Chem 314 or 340.
The coordinating properties and reactivity of metal ions in living organisms. Lecture. (On demand)

467G **Biochemistry II.** 3 hours.
Prerequisite: Biochem 446.
The reactions of living systems and an introduction to the mechanisms and energetics of metabolism. Lecture. (Spring)

Biochemistry is the study of the most intricate of all chemical systems, living matter, and attempts to determine the chemical nature and chemical reactions in protoplasm—the basic material of living matter. Training in biochemistry provides many opportunities in teaching, research, and public service and provides excellent preparation for many other areas of basic and applied sciences.

Biochemistry courses are administered jointly by the Departments of Biology and Chemistry. The student should enroll either in the Department of Biology or the Department of Chemistry, depending upon the major emphasis. Enrollment requires the completion of proper prerequisites in biology and chemistry.

For further information, contact Dr. Toman in the Department of Biology or Dr. Hartman in the Department of Chemistry.

DEPARTMENT OF GEOGRAPHY AND GEOLOGY

ENVIRONMENTAL SCIENCE AND TECHNOLOGY BUILDING ROOM 305 (502) 745-4555

Wayne L. Hoffman, Head

Graduate Faculty

Professors: R. Ahsan, N. Crawford, J. Davis, R. Dilamarter, N. Fields, E. Hegen, W. Hoffman, M. Lowry, J. McGregor, A. Petersen, C. Pickard, R. Seeger

Associate Professor: C. Moore

Assistant Professor: M. Trapasso

Degrees Offered: Master of Science in Geography, Master of Arts in Education (Geography major or minor), Master of Public Service (City and Regional Planning option).

The graduate programs in geography provide a solid background for students who plan to continue advanced studies toward the Ph.D. degree, to pursue careers in college teaching or teaching in middle and high schools, or to enter public service as city and regional planners. Graduates are prepared for a variety of other employment areas such as rangers or naturalists in national and state parks, cartographers, airphoto interpreters, and similar consulting positions in business and industry.

Applicants for the Master of Science in Geography and the MPS Degree (City and Regional Planning option) must have (1) an overall grade point average of 2.80 or above, or (2) a grade point average of 2.80 or above on the last sixty semester hours of undergraduate work, or (3) a score of 800 or above (verbal and quantitative combined) on the General Test of the Graduate Record Examination.

Master of Science in Geography

Both Plan A (thesis) and Plan B (non-thesis) are available. Plan A requires a minimum of 30 semester hours of graduate credit, including Geog 500, 502, 504, and 491G or 590. With approval from the advisory committee, a student may take a maximum of six hours outside the discipline. The thesis must be based upon original research directed by the advisor. Plan B requires 33 semester hours of graduate credit individually planned, with 18 hours in courses open only to graduate students.

The research tool, under both plans, must be met by demonstrating either (1) reading proficiency in a foreign language appropriate for the major area or (2) competency in the appropriate research techniques.

Individual student programs may be designed to emphasize mapping, remote sensing, hydrology and geomorphology, meteorology and climatology, conservation, cultural geography, and regional geography.

Master of Arts in Education (Geography major or minor)

Students following this program must meet all requirements for standard high school certification. The major requires a minimum of 18 hours (see advisor for course selection). The minor requires a minimum of 12 hours. The remaining hours (within the required 30) are taken in professional education.

Master of Public Service (City and Regional Planning Option)

This interdisciplinary program consists of offerings from several departments and prepares individuals to serve in governmental positions requiring administrative training as well as knowledge of the particular areas they are to administer.

This option provides academic and practical training in city and regional planning and prepares students for employment with local, state, and federal agencies, as well as for positions within the private sector economy.

All candidates for the Master of Public Service degree (regardless of the option chosen) are required to complete a minimum of 9 hours in the core—three semester hours from category A and six semester hours from category B as follows:

- A. Organization Theory Courses—3 hours
Govt 540 Seminar in Public Administration
Psy 551 Social Psychology of Organizations
Soc 562 Formal Organizations
Mgt 575 Organization Theory

- B. Socio-Economic and Political Factor Courses—6 hours.
*Geog 484G Planning: Theory and Application
Govt 511 Seminar in State and Local Government
Econ 588 Public Sector Economics
Soc 542 Community

*Required for the City and Regional Planning option.

Individual programs are planned in accordance with specific needs of the student. The thesis is optional. Required courses (within the 36-hour minimum) are:

- Geog 580 Problems in Urban Geography
- Geog 500 Introduction to Research
- Geog 584 Advanced Planning
- Geog 595 Planning Practicum

Graduate Courses in Geography

500	Introduction to Geographic Research. 3 hours. Development of geographic research skills with emphasis on posing of research problems, documentation, organization, and presentation.	540	Advanced Regional Geography. 3 hours. Prerequisites: Two courses in regional geography and consent of instructor. The regional method as a basic approach to geographic research via one or more major regional units.	404G	Computer Mapping. 3 hours. Geographic information systems and computer mapping programs. Introduction to the graphic terminal, plotter, hard copy unit, and digitizers. While knowledge of computer programming is not required, a course such as CS-240 would be extremely helpful.
501	Geography, Science, Civilization. 3 hours. Topical seminar examining current issues and trends of the discipline and related fields, recent research, and the role of science in society, technology and culture.	541	Seminar in Tropical Geography. 3 hours. Prerequisites: Geog 210, 422, 430 and permission of instructor. Specific problems of the man-environment relationships of the American, African, and Asian Tropics.	410G	Cartography II. 3 hours. Prerequisite: Cartography I (315). History of cartography, map compilation, lettering and typography; cartographic design, map reproduction, use of color, map projections, scribing techniques.
502	Geographic Techniques for Field Investigations. 3 hours.	550	Advanced Studies in Economic Geography. 3 hours. Prerequisites: Geog 250, 478 or 479 and permission of instructor. An examination of the major theories in economic geography.	415G	Air Photo Interpretation. 3 hours. Characteristics of aerial photographs; use of air photos for analysis of the earth's physical and cultural features; air photo approach to urban and regional planning. (Spring)
504	Historical and Philosophical Bases of Geography. 3 hours. The evolution of geography as a distinct discipline through study of the writings of outstanding scholars.	560	Settlement Geography. 3 hours. Prerequisite: Geog 430 or consent of instructor. Sources and philosophies of settlement studies. Investigations of selected settlement patterns with emphasis on rural and rural non-farm settlement; farmstead, hamlet, village and town, and functionally related features, architectural style, and functional rationale.	416G	Remote Sensing: Principles and Applications to Environment and Planning. 3 hours. Remote sensing techniques and their application in the study of man's biophysical environment through the use of infrared, thermal infrared, radar and space photography.
505	Biogeography. 3 hours. Prerequisites: Introductory courses in geography and/or biology, and permission of instructor. The evolutionary, geographical, ecological, pedagogical, and edaphic factors involved in the naturalization, acclimatization, and distribution of plant and animal life.	571	Quality of Life: Environmental Problems and Ecological Solutions. 3 hours. Seminar approach to developing critical ecological sensitivity through analysis of past and present environmental problems, implemented and alternative solutions.	420G	Geomorphology. 4 hours. Prerequisites: Geog 100, Geol 102, 111, and 113. The origin, history and characteristics of land-forms produced by fluvial, glacial, wind and wave erosion and by mass-wasting and ground-water.
510	Selected Topics in Geography. 3 hours. Topics will vary according to student needs.	580	Problems in Urban Geography. 3 hours.	421G	Advanced Geomorphology. 3 hours. Prerequisite: Geol 420. Landform development under processes associated with running water. Principal topics are: climate and geomorphic processes; weathering; the drainage basis as a geomorphic unit; channel form; hill-slope characteristics; drainage pattern evolution, etc.
521	Advanced Studies in Geomorphology. 3 hours. Prerequisites: Geomorphology 420, or equivalent, and 3 hours in upper-level physical geography or geology. A review of topics in advanced geomorphology; field and laboratory procedures, and an introduction to research in landform analysis. Research in instructor-approved geomorphic topics.	584	Advanced Planning. 3 hours. Prerequisite: Geog 484. Analysis of advanced topics and results of recent research in city and regional planning.	422G	Climatology. 4 hours. Prerequisite: Geog 100, 105, or 121. The elements of climate and their world distribution with emphasis on the climatic controls.
522	Advanced Studies in Climatology. 3 hours. Prerequisites: Geog 422 and permission of instructor. The effects of climatic controls on micro-climates and climatic anomalies. Detailed use of environmental characteristics, i.e., rainfall patterns, etc.	585	Advanced Studies in Population Geography. 3 hours. Prerequisites: Geog 485 and permission of instructor. Seminar approach to regional and world problems in human population.	423G	Transportation Planning. 3 hours. The problems of interaction, diffusion and information transfer as they appear in a spatial context.
524	Meteorology for Science Teachers. 3 hours. Basic weather course with emphasis on new developments and applications.	590	Experimental Design and Data Analysis. 3 hours. Prerequisite: Geog 491 or permission of instructor. (Cross-listed with Agriculture 590) Statistical consideration in experimental design: Covariance, multiple regression, factorial design, incomplete block designs, etc.	424G	Weather Analysis and Forecasting. 3 hours. Prerequisite: Geog 100, 105, 121, or permission of instructor. Analysis of air masses; principles of weather forecasting; drawing and interpretation of the daily weather map; and making weather forecasts.
525	Advanced Political Geography. 3 hours.	595	Planning Practicum. 3 to 6 hours. Prerequisites: Geog 484, 584, and permission of instructor. Supervised planning experience in a co-operating government or private agency.	425G	Political Geography. 3 hours. Prerequisite: Geog 101 or permission of instructor. The political system as a spatial phenomenon. Examples from local, metropolitan-regional, national and international levels.
530	Selected Problems in Cultural Geography. 3 hours. Prerequisite: Geog 430 or permission of instructor. Seminar-field experience. Covers cultural origins and dispersals, environmental perception and behavior, and resulting consequence upon the geographic landscape.	599	Thesis Research and Writing. 6 hours.	426G	Applied Meteorology/Climatology. 3 hours. Prerequisite: Geog 121 and 422 or permission of instructor. Practical insight into the influence of meteorology and climatology on man. Problems of the physical environment caused by what man has done or will do to the weather and climate patterns of the world.
532	Studies in Geographic Exploration. 3 hours. Eighteenth, 19th and 20th century scientific exploration of the "terre incognitae" through examination of firsthand accounts.	599c	Maintaining Matriculation. 1 to 6 hours.		
534	Historic Preservation Planning: Application. 3 hours. Prerequisite: Geog 434G Field application of historic preservation method and techniques.	The following 400-level Geography courses may be taken for graduate credit			
		402G	Physiography of North America. 3 hours. Prerequisites: Geog 106 and 108 or Geology 102 or 111 and 113.		

430G Cultural Geography. 3 hours.
Concepts of culture and the interaction between various cultures and their environments.

434G Historic Preservation Planning: Principles and Practices. 3 hours.
Historic preservation methodology and practice as related to urban, small town, and rural neighborhoods. Includes historic preservation law and impact statements.

452G Field Studies in Geography. 3 hours.

453G Geography of the Soviet Union. 3 hours.

454G Geography of Middle America. 3 hours.
Prerequisite: Geog 101 or permission of instructor.
A regional analysis of Mexico, Central America and the West Indies.

462G Geography of South America. 3 hours.
Prerequisite: Geog 101 or permission of instructor.
Physical and cultural bases of South America's geographic patterns with emphasis on problems of resource development.

464G Geography of Europe. 3 hours.
Prerequisite: Geog 101 or permission of instructor.

465G Geography of Asia. 3 hours.
Prerequisite: Geog 101 or permission of instructor.
Regional differences with emphasis on the distribution and activities of the peoples relative to the natural and economic setting and to problems of development.

466G Geography of Africa. 3 hours.
Prerequisite: Geog 101 or permission of instructor.
Geographic survey, assessing the relationships of the physical and cultural patterns to actual and potential economic development.

467G Geography of the Middle East. 3 hours.
Various aspects of the sequent occupancy of Southwestern Asia and surrounding regions mentioned in the Bible.

470G Geography of Cities. 3 hours.

478G Geography of Agriculture. 3 hours.
Prerequisite: Geog 350, Ag 260, or permission of instructor.
Regional patterns of world agricultural production.

479G Industrial and Commercial Geography. 3 hours.
Prerequisite: Geog 350 or permission of instructor.
Manufacturing and commercial activities and facilities related to assembling of raw materials and distribution of products.

484G Planning: Theory and Application. 3 hours.
Planning theory, practice, and organizational structure.

485G Population and Resources. 3 hours.
Distribution of population and population characteristics as related to world resources and cultures. Problem regions are identified.

488G Rural Planning. 3 hours.
Principles and practices of rural planning with emphasis on the relationships between planning and economic, social, and ecologic problems in the rural setting.

491G Data Analysis and Interpretation. 3 hours.
Prerequisite: Math 100 or permission of instructor.
Statistical models and use of samples; variation, statistical measures, distributions, tests of significance, analysis of variance, regression, correlation and chi-square as related to interpretation and use of scientific data. (Fall, spring)

The following graduate courses, specially designed for teachers of natural and earth science, are offered in Geology

511 The Dynamic Earth. 3 hours.
Prerequisites: Geol 102 and 112, or one year of earth sciences teaching at secondary school level.
Topics include plate tectonics, the surface features of Earth, physical properties of Earth and its interior, geological processes and the geological time scale, continental drift, paleomagnetism, etc.

The following 400-level Geology courses may be taken for graduate credit

405G Paleontology. 4 hours.
Prerequisites: Geol 112, Geol 114, Biol 148-9, and Biol 156-7 or permission of instructor.
Nature of the fossil record, preservation, basic factors and theories relating to the origin and development of living systems and the processes of evolution, the species concept, systematics and paleoecology.

411G General Oceanography. 3 hours.
Prerequisite: Geol 102 or 111 or permission of instructor.

Geological, chemical, physical and biological aspects of the marine environment. Topics include the topography, structure and history of the ocean basins and their margins; ocean waters and oceanic circulation; marine geochemistry; the ocean as a bio-geochemical system, etc.

415G Environmental Geology. 3 hours.
Prerequisite: Geol 111-113, Geog 100 or Geol 102 or permission of instructor.
Geologic factors as related to site selection, energy production, land use, waste disposal, planning, water resources, engineering practices, and the recognition and control of geologic hazards.

420G Geomorphology. 3 hours.
Prerequisites: Geol 102 or 111 and 113.
Origin, history and characteristics of land-forms produced by fluvial, glacial, wind and wave erosion, and by mass-wasting and ground-water.

421G Advanced Geomorphology. 3 hours.
Prerequisite: Geol 420G.
Landform development under processes associated with running water. Principal topics are: climate and geomorphic processes; weathering; channel form, hill-slope characteristics; drainage pattern evolution, etc.

440G Hydrogeology. 3 hours.
Origin, occurrence and movement of ground water; wells and aquifer evaluations; quality of ground water supplies; legal aspects.

450G Stratigraphy-Sedimentology. 3 hours.
Prerequisite: Geol 330, Geol 405.
Origin, characteristics, occurrence and classification of sedimentary rocks; characteristics and relationships of sedimentary strata including stratigraphic principles and practice.

465G Geophysics. 3 hours.
Prerequisites: Geol 111 and one year of college physics or instructor permission.
General and exploration geophysics. Topics include the origin of the earth and solar system, the earth's interior, gravity and isostasy, seismology, upper atmosphere, continents and ocean basins, etc.

467G Exploration Geophysics. 3 hours.
Fundamentals of general geophysics and practical experience in the major methods of exploration geophysics, such as gravity, magnetic, seismic, and electrical methods.

470G Tectonics. 3 hours.
Prerequisite: Geol 308.
Plate Tectonics, the unifying theory of modern earth sciences. Emphasizes the contribution of previous hypotheses and research (i.e., continental drift, sea-floor spreading, paleomagnetics, magnetic reversals, geosynclines, etc.)

475G Special Topics in Geology. 3 hours.

DEPARTMENT OF HEALTH AND SAFETY

SCIENCE AND TECHNOLOGY HALL ROOM 412 (502) 745-4797

J. David Dunn, Head

Graduate Faculty

Professors: D. Dunn, W. Hourigan, G. Lohr, J. Price

**Associate Professors: H. Baughman, R. Baum,
R. Biggerstaff, D. Carter, W. Higgins, N. Schira,
F. West, R. Wilson**

Assistant Professors: N. MacDowell, P. Tanner

Degrees Offered. Master of Arts in Education (Health major and minor, Health and Safety major and minor), Master of Science in Health (Public Health).

The program leading to the Master of Arts in Education with a major or minor in health is designed to prepare students for positions as (1) health educators in junior and senior high schools, (2) coordinators of school health programs, (3) administrators and supervisors of school health programs, and (4) health educators in community health agencies. The program leading to the Master of Arts in Education with a major or minor in health and safety is designed to prepare students for positions as (1) teachers of driver education and health in high schools, (2) coordinators of health and safety programs, and (3) administrators of health and driver education programs. The applicant must hold a valid teaching certificate and have a minimum of a minor in health and safety. Applicants who hold a valid teaching certificate but have not completed a recognized minor in health and safety may be conditionally admitted if they have completed a minimum of 12 semester hours of undergraduate coursework in health and safety and/or related courses.

The program leading to a Master of Science in Health (Public Health) is designed to meet the needs of a wide range of professionals (e.g., public health educators, nurses, sanitarians, administrators, industrial health per-

sonnel, nutritionists, dental hygienists, and other allied health professionals) who desire graduate education in public health. The flexibility of the program allows for individual consideration of student needs, expectations, and career objectives. To pursue the Master of Science (Public Health), each applicant must submit at least a minor in health or adequate preparation in the sciences basic to health.

Master of Arts in Education (Health major or minor)

Students pursuing a major in health must complete 18 to 21 hours in health—including Health and Safety 520, 545, and 567. Both Plan A (thesis) and Plan B (non-thesis) are available. For a minor in health students must complete 12 to 15 hours in health, including Health and Safety 545 and 567. The additional hours in health must be chosen in consultation with the graduate advisor. The remaining coursework will be taken in professional education.

Master of Arts in Education (Health and Safety major or minor)

Students pursuing a major in health and safety must complete 18 to 21 hours in health and safety including Health and Safety 520, 545, and 567; 9 hours in safety and driver education, chosen in consultation with the graduate advisor; and 9 to 12 hours in professional education. Both Plan A (thesis) and Plan B (non-thesis) are available. For a minor in health and safety, students must complete 12 to 15 hours in health and safety—including Health and Safety 545, 567, 570, and 471G—and 15 to 18 hours in professional education. The additional hours in health and safety (for a major or minor) must be chosen in consultation with the graduate advisor.

Master of Science in Health (Public Health)

Students pursuing the Master of Science in Health must complete Health and Safety 481G, 520, 582, 583, and either 599 (Thesis) or 546 (Public Health Internship). The additional 12 hours of coursework will be chosen in consultation with the candidate's graduate committee and may be selected from the health and safety curriculum as well as related disciplines. The research tool requirement is met by satisfactory completion of Health and Safety 501.

Graduate Courses in Health and Safety

501 Analysis of Research in Health and Safety. 3 hours.

Review of literature related to methods, materials, techniques, and planning of research studies used and conducted by the profession.

520 Vital and Medical Statistics. 3 hours.

Application of statistical techniques to health and safety data. Emphasizes basic principles and techniques in designing and analyzing health problems.

530 Independent Investigations in Health and Safety. 1 to 3 hours.

Prerequisite: HI Sft 520. Research problems or projects in the area of health and safety.

545 The Health Education Curriculum.

3 hours.
Prerequisite: Ed 580.

For health educators and administrators. Review of health curriculum guides and curriculum studies in health education. Laboratory work in construction of curriculum guides.

546 Field Work in Community Health Programs. 3 hours.

The philosophy, organization, and services of community health organization. Includes observation of, and participation in, local community health programs. May be repeated once.

567 Administration and Supervision of Health and Safety Programs. 3 hours.

Responsibilities, activities, and problems of administering and supervising health and safety programs within and among

the school and other community agencies.

570 School and Community Safety Programs. 3 hours.

Responsibilities, activities, and problems of school and community safety programs. Emphasizes pupil transportation programs. Also includes home, fire, traffic and transportation, industrial and public safety.

580 History and Philosophy of Public Health. 3 hours.

Development and scope of public health within an historical and philosophical context.

581 Methods in Public Health Education. 3 hours.

The roles and functions of community health educators.

582	Epidemiology: Practice and Theory. 3 hours. Prerequisite: 3 hours graduate level statistics. Application of epidemiological principles to representative occurrences of communicable and noncommunicable disease. Emphasizes problem solving and interpretation.	599	Thesis Research and Writing. 6 hours.	465G	Health and Safety in the Elementary School. 3 hours. Prerequisite: Three hours of health. Nature and purpose of school health and safety in the elementary school, including curriculum development, instructional content areas, appraising students' health, and evaluation.
583	Public Health Administration. 3 hours. Advanced concepts of organization, administration and management of public health agencies and programs.	599c	Maintaining Matriculation. 1 to 6 hours.	466G	Clinical Health Education. 3 hours. Multidisciplinary approaches for health educators in a clinical situation. Includes education of patient, health facility personnel and family. Also covers program development and discharge counseling. May include field trip.
584	Health Planning. 3 hours. Concepts and methods of health planning with emphasis on the "certificate of need" requirement and program evaluation.	443G	Health Problems of the Aged. 3 hours. Covers ecological factors affecting human health and longevity, current health problems, and research on health and disease as they relate to the aged.	469G	Critical Issues in Health and Safety. 3 hours. Prerequisites: HI 260, 361 and PSY 250. Research and discussion of specific local, national and world wide health and safety problems.
585	International Health. 3 hours. Analyzes international health problems, including the development and administration of the World Health Organization. Covers critical health problems of both developed and underdeveloped countries. Emphasizes effective intervention strategies.	460G	School and Community Health Workshop. 3 hours. Emphasizes the coordination of school and community health programs and personnel in seeking solutions for health problems.	470G	Driver Education and Traffic Safety II. 3 hours. Prerequisite: Sft 370 or equivalent. Management of classroom and laboratory phases of the high school driver and traffic safety education program. Emphasizes simulation and range programs.
586	Health Economics. 3 hours. Economic principles applied to the study of health care facilities, health services and manpower.	461G	School Health Organization. 3 hours. Standards and criteria for the three phases of the school health program: health services, healthful school environment, and health instruction. Emphasizes coordination of the total school health program. Visitation in public schools.	471G	Advanced Studies in Driver Education. 3 hours. Prerequisite: Sft 370 or equivalent. Advanced instructional technology to meet the needs of the driver and safety education program. Emphasizes behavioral approaches to traffic safety education.
587	Health, Illness, and Sick-Role Behavior. 3 hours. Models of positive health within the individual's life style. Includes types of illnesses and factors influencing health behavior.	462G	Folk Medicine. 3 hours. Historical circumstances, associations, and logic of traditional non-scientific medical practices.	481G	Environmental Factors of Health Problems. 3 hours. The environment and its relationship to disease causation. Includes the ecology of health and disease, air and water pollution, insect vector and rodent control, noise pollution, population imbalance and consumer protection. Field trips required.
588	Seminar in Public Health. 3 hours. Current issues in public health.	463G	Consumer Health. 3 hours. Benefits and/or hazards of and criteria for selection of health related products and services. Analysis of methods and techniques of health frauds. May include field trips.		
590	Public Health Law. 3 hours. The judicial system and the development, enactment and enforcement of laws as they relate to public health.				

DEPARTMENT OF INDUSTRIAL AND ENGINEERING TECHNOLOGY

**ENVIRONMENTAL SCIENCE AND TECHNOLOGY BUILDING
ROOM 205 (502) 745-3251**

Boyce Tate, Head

Graduate Faculty

Professors: F. Conley, E. Hein, F. Pittman, D. Rowe, D. Wendt

Associate Professors: R. Eversoll, C. Roberts, J. Russell, T. Tomazic

Assistant Professor: H. Leeper

Degrees Offered: Masters of Arts in Education (industrial Education major or minor), Specialist in Education (for secondary teachers in the area of Industrial Arts).

Applicants must meet the general requirements of the Graduate College and of the College of Education.

Master of Arts in Education (Industrial Education major or minor)

This program is designed for the professional development of persons who are teaching in or administering industrial education programs and also serves as the basis for entering a specialist or doctoral program. Its flexibility meets the needs of students with varying backgrounds and goals.

Individuals following this program must meet all requirements for standard high school certification (see Secondary Education).

The major requires 18-21 hours and the minor requires 12-15 hours of industrial education courses. The remaining hours, in both cases, will be taken in professional education courses.

Specialist in Education (See Secondary Education)

Graduate Courses in Industrial Education

510 Investigations in Industrial Education. 3 hours. Individual research under the direction of a graduate faculty member.

520 Philosophy of Industrial Education. 3 hours. The development of industrial education in Europe and America. Emphasis on influences, experiments, and trends leading to modern practices in industrial, vocational, and technical education.

524 Organization and Teaching of Industrial Education for the Handicapped and Disadvantaged. 3 hours. Current research and literature on the handicapped and/or disadvantaged surveyed in relation to the adaptation of industrial education activities.

525 Industrial Education Curriculum. 3 hours. Curriculum practices, concepts, and trends in curriculum development and improvement of programs.

The following independent study courses are for students pursuing specific areas.

530 Advanced Drafting. 3 hours.

532 Industrial Design. 3 hours.

542 Industrial Electricity and Electronics. 3 hours.

544 Wood Technology. 3 hours.

548 Graphic Arts. 3 hours.

552 Advanced Machine Shop. 3 hours.

556 Power and Auto Mechanics. 3 hours.

560 Metal Technology. 3 hours.

564 Problems in Crafts. 3 hours.

568 Ceramics and Plastics. 3 hours.

572 General Shop. 3 hours.

599 Thesis Research and Writing. 6 hours.

599c Maintaining Matriculation. 1 to 6 hours

The following 400-level courses may be taken for graduate credit

410G Industrial Arts Problems. 3 hours. Prerequisite: Departmental approval. Individual study and/or research in industrial education.

439WG Workshop in Industrial Education. 3 hours. Special short course on problems in industrial education and technology.

452G Industrial Wood Processing II. 3 hours. Prerequisite: Departmental approval. The setup and use of woodworking machines. Includes tooling, jig and fixture design, and the mass production of wood products. Field trips.

460G Seminar in Vocational-Industrial and Technical Education. 3 hours. Individual and group investigations of current problems and issues in the field of vocational-industrial and technical education.

465G Industrial Arts for Elementary Teachers. 3 hours. Philosophy, purposes, organization and correlation of industrial arts activities as they apply to the elementary school program.

495G Acoustic Guitar Construction. 4 hours. Prerequisites: IE 103 and 341 or equivalent. The Haile method of steel string and/or classic guitar construction. Students are required to construct an acoustic guitar and related jigs and fixtures. Lecture, lab, and field trips.

498G Advanced Wood Products Analysis. 3 hours. Prerequisite: Departmental approval. Seminar on selected wood products topics. Current research and development as it relates to the wood products industries. Field trips.

445G Industrial Hygiene Laboratory. 1 hour. Prerequisite: ET 440G. Correlated with ET 440G. Techniques of evaluating occupational health hazards. Calibration, sampling, and analysis for chemical and physical hazards.

450G Hazardous Waste Control. 3 hours. Prerequisites: Chem 105 and 107 or 120 and 122. Hazardous waste legislation as it relates to the Resource Conservation and Recovery Act of 1976. Covers ultimate disposal options, facility siting, emergency spills, personal safety, protective equipment, waste transport, and the environmental impact of disposal.

460G Environmental Impact Statements. 3 hours. Preparation of assessments of environmental impacts as outlined by the National Environmental Policy Act. Resource information provided.

470G Industrial Waste Treatment. 3 hours. Prerequisite: ET 410 or ET 420 or permission of instructor. Basic principles involved in the treatment of industrial and domestic waste waters. Includes the design of various waste water treatment processes. Lecture.

475G Selected Topics. 1 to 3 hours. Current problems and development in engineering technology. Topics will vary.

480G Solid Waste Treatment. 3 hours. Characteristics and extent of the solid waste problem. Emphasizes methods of disposal of solid waste including sanitary landfill, incineration, recycling and reclamation and conversion processes. Lecture.

490G Sanitation. 3 hours. Sanitary principles involved in the processing and distribution of milk and milk products, meat shelfish and other foods. Lecture, 2 hours; lab, 3 hours.

DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE

THOMPSON COMPLEX, CENTRAL WING
ROOM 357 (502) 745-3651

Robert C. Bueker, Head

Graduate Faculty

**Professors: J. Barksdale, R. Bueker, J. Crenshaw,
C. Davis, B. Detwiler, W. Jones, J. Stokes,
K. Wallace, M. Watson, C. Wells**

**Associate Professors: T. Cheatham, R. Crawford,
A. Crawley, P. Lowman, G. Powers**

Degrees Offered: Master of Science in Mathematics, Master of Science in Computer Science, Master of Arts in Education (Mathematics major or minor, Math-Science Area major).

Applicants for departmental programs must have the appropriate background in mathematics and computer science. In addition to the general Graduate College requirements, students must meet departmental requirements.

Master of Science in Mathematics

This program is designed to give the student a general but thorough understanding of the main areas of pure and applied mathematics. For acceptance into the program, the student is expected to have completed courses in linear algebra, abstract algebra, and either real analysis or advanced calculus.

A minimum of 30 semester hours is required, and must include at least 15 hours at the 500 level. Both the thesis and non-thesis options are available. Each student's program is developed individually and must satisfy the following requirements:

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- A. Math 431G, 432G, 417G, 439G (unless equivalent courses were taken at the undergraduate level).
- B. One indicated two-course sequence from each of three of the following areas:
 1. Algebra: 417G-517
 2. Analysis: 432G-531, 432G-532, 450G-550
 3. Applied Mathematics: 435G-535, 470G-570, 529-530
 4. Topology-Geometry: 439G-539, 423G-523, 439G-523
 5. Computer Science: 406G-510, 442G-541, 443G-543
- C. A working knowledge of a higher level programming language such as BASIC or FORTRAN (unless obtained at the undergraduate level).

A student may, upon approval of the departmental graduate committee, include in his/her program a maximum of six semester hours of coursework from a related discipline (e.g. Physics 510-550).

The research tool requirement may be fulfilled with a

foreign language, a mathematics reading course or computer science. For specific details, contact a graduate student advisor in the Department of Mathematics and Computer Science.

If the candidate elects the non-thesis option, satisfactory completion of a one-hour written examination over each of the three sequences chosen to satisfy item B above is required. The eligible candidate must have completed (or be scheduled to complete by the end of the current academic term) the last course in each of the sequences selected. If the candidate elects the thesis option, then the final written examination is based on only two of the aforementioned areas. An oral thesis defense is required in lieu of the written examination in the third area.

Master of Arts in Education (Mathematics major or minor)

Since this program is designed for the public school mathematics teacher, students following it must satisfy all requirements for standard high school certification. Adequate preparation for a major in mathematics consists of an undergraduate teaching major in mathematics which includes, in addition to a calculus sequence, coursework in linear algebra and at least two of the following three areas: abstract algebra, geometry, analysis or advanced calculus. For a minor in mathematics, preparation should include at least an undergraduate teaching minor in mathematics with post-calculus coursework including linear algebra and one of the three areas.

Students majoring in mathematics must take 21 hours of mathematics including a course in each of the following areas: geometry, analysis, algebra. Upon approval of the graduate committee, 18 hours may satisfy the above requirement provided the student has previously completed Math 317, 323, and 327 (or the equivalent). A minor in mathematics must include at least 12 hours of mathematics. The remainder of the required 30 hours will be taken in professional education courses.

Neither a thesis nor a research tool is required; however, Education 500—Research Methods is required as one of the professional education courses. An oral final examination, based on the coursework and related concepts, is required.

(See mathematics courses specifically for students pursuing the Master of Arts in Education degree)

Master of Science in Computer Science

In addition to the general Graduate College requirements, applicants must have completed approximately two years of undergraduate study in computer science and mathematics. Minimal requirements include a knowledge of programming in a higher level language; assembly language; computer organization; discrete structures. Also required are at least 12 semester hours of foundational mathematics including linear algebra and one year of calculus. A knowledge of probability and statistics is highly recommended. These entrance requirements may be satisfied by courses taken as an undergraduate, substantial practical experience in the computer field, or deficiency coursework taken while a graduate student.

A minimum of 30 semester hours of course work is required, at least 15 of which must be 500-level or above. Both thesis and non-thesis options are available. The research tool, under both options, may be met by successful completion of CS 476—Research Methods and Projects. No credit earned in meeting the research tool requirement will apply toward hours required for the degree. A compreh-

hensive examination over the course work (and thesis if applicable) is required after completion of at least eight courses.

Specific degree requirements are as follows:

- A. CS 442G Information Structures
- CS 443G Data Base Management Systems
- CS 445G Operating Systems
- CS 541 Mathematical Foundations of Computer Science
- CS 543 Computer Information Systems Design

- CS 544 Compiler Theory and Design
- B. One course from CS 405G, 406G, 510, or 547.
- C. One elective computer science course and two elective courses from computer science or a cognate area approved by the graduate advisor.
- D. A minimum of four 500 level computer science courses.

If any of the required courses have been completed for undergraduate credit, electives will be substituted.

Graduate Courses in Mathematics

500 Readings in Mathematics. 1-3 hours.
Prerequisite: Undergraduate major in mathematics.

Students read and present papers that have appeared in (or have been accepted by) mathematical journals. Topics covered are determined by areas of interest.

517 Topics from Algebra. 3 hours.
Prerequisite: Math 417.

Theory of rings, fields, and vector spaces. Topics include: polynomial rings; principal ideal domains; unique factorization domains; field extensions; Galois theory.

523 Topics from Geometry. 3 hours.
Prerequisite: Undergraduate geometry and permission of instructor.
Geometry of special lines and points; isometries; similarities; inversion; applications.

529 Mathematical Statistics I. 3 hours.
Prerequisite: Math 431 or 327.
Probability models; combinatorial analysis; random variables and their distributions; moments of probability distributions; moment generating functions and sampling distributions.

530 Mathematical Statistics II. 3 hours.
Prerequisite: Math 529.
Properties and determination of point estimation; interval estimation; testing hypothesis; multivariate normal distribution; nonparametric statistics and linear models.

531 Advanced Differential Equations. 3 hours.
Prerequisites: Math 331, 431.
Power series solutions; existence and uniqueness theorems; stability and Liapunov's method; regular singular points; perturbations of periodic solutions.

532 Real Analysis. 3 hours.
Prerequisite: Math 432.
Function spaces; additive set functions; outer measure; measurable functions; integration.

535 Advanced Applied Mathematics I. 3 hours.
Prerequisite: Math 331, 431.
Eigenvalue and boundary value problems; orthogonal expansions in function spaces; classical polynomials; Sturm-Liouville theory; Fourier and Laplace transforms.

536 Advanced Applied Mathematics II. 3 hours.
Prerequisite: Math 535.
Integral equations; calculus of variations; maximization of linear functionals; maximum gradient method.

539 Topology II. 3 hours.
Prerequisite: Math 439.
Homotopy; homology theory.

550 Complex Analysis. 3 hours.
Prerequisites: Math 450 and 432.
Analytic continuation; conformal mapping; Riemann surfaces; univalent functions.

560 Functional Analysis. 3 hours.
Prerequisite: Math 432.
Theory of abstract linear spaces. Topics include: normed vector spaces; inner product spaces; Hilbert spaces; open mapping and closed graph theorems; Banach-Steinhaus theorem; weak and weak*-topologies.

570 Advanced Topics in Operations Research. 3 hours.
Prerequisite: Math 432, 470 or consent of instructor.
Specific area(s) of operations research.

590 Special Topics in Mathematics. 3 hours.
Prerequisite: Math 432.

599 Thesis Research and Writing. 6 hours.

599c Maintaining Matriculation. 1 to 6 hours.

Additional 500-level Math courses acceptable for the Master of Arts in Education

501 Introduction to Probability and Statistics I. 3 hours.
Prerequisite: Permission of instructor.
Combinations and permutations; basic theorems of probability; mathematical expectations; random variable and basic probability distributions; central limit theorem.

502 Introduction to Probability and Statistics II. 3 hours.
Prerequisite: Math 501.
Review of linear algebra; Markov chains; decision theory; linear programming and game theory.

503 Introduction to Analysis. 3 hours.
Examination of selected topics in elementary calculus including sequences, series, limits, continuity, the derivative, and the Riemann integral. Introductory material includes logic, set theory, and functions.

504 Computer Applications to Problems in Mathematics. 3 hours.
Computer techniques and solutions of problems in mathematics including calculus, applied statistics, simulation, linear programming, game theory and linear algebra.

The following 400-level Math courses may be taken for graduate credit

405G Numerical Analysis I. 3 hours.
Prerequisites: Math 327, CS 240 or equivalent.
Roots of equations, linear operators, polynomial approximation, interpolation, numerical differentiation and integration, difference equations, and numerical solution of initial value problems in ordinary differential equations. Algorithmic computer solutions of problems will be required.

406G Numerical Analysis II. 3 hours.
Prerequisites: Math 405 and 331.
The solution of linear systems by direct and iterative methods, matrix inversion, the calculation of eigenvalues and eigenvectors of matrices. Boundary value problems in ordinary differential equations. Algorithmic computer solution of problems will be required.

413G Algebra for Elementary Teachers. 3 hours.
Prerequisite: Math 102 or 303 or equivalent.
Properties of real numbers, linear equations and inequalities, systems of equations, complex numbers, algebraic structures. For elementary education majors only.

415G Algebra and Number Theory. 3 hours.
Prerequisite: Math 315 or 317.
Survey of modern algebra and number theory. Includes number systems, divisibility, congruences, groups and their application to number theory.

417G Algebraic Systems. 3 hours.
Prerequisite: Math 317.
Theory of groups.

423G Geometry II. 3 hours.
Prerequisite: Math 323.
An axiomatic development of plane hyperbolic geometry which presupposes a development of absolute geometry.

429G Probability and Statistics II. 3 hours.
Prerequisite: Math 329.
Sampling distributions from normal populations; point estimations, interval estimation, theory and application of hypothesis testing; regression and correlation; analysis of variance.

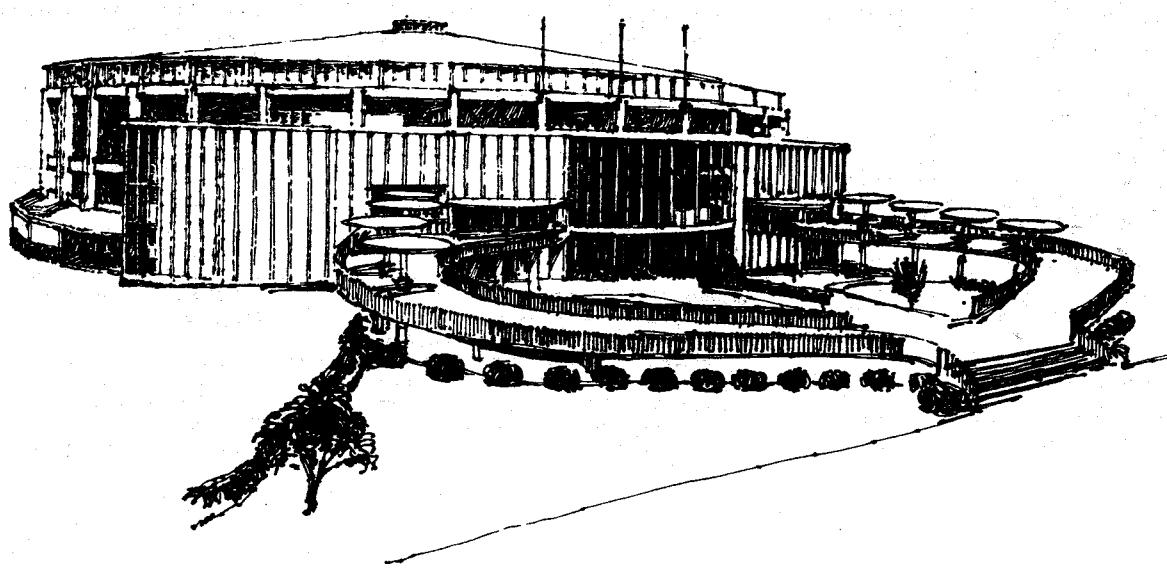
431G Intermediate Analysis I. 3 hours.
Prerequisite: Math 317.
Sequences; continuity; elementary topological concepts; differentiation; Riemann integral; Euclidean n-space.

432G Intermediate Analysis II. 3 hours.
Prerequisite: Math 431.

<p>Sequences of functions; series; continuity and differentiation of vector-valued functions of a vector variable; inverse and implicit function theorems.</p>	<p>computer science: graph theory, algebraic structures, combinatorial analysis.</p>
<p>435G Partial Differential Equations. 3 hours. Prerequisite: Math 331 and Math 327. Equations of first and second order; elliptic, hyperbolic and parabolic equations of mathematical physics using separation of variable and Fourier series.</p>	<p>543 Computer Information Systems Design. 3 hours. Prerequisite: CS 443. Systems organization, design, and implementation. Physical and logical file organization methods and access techniques. Alternatives in system design and implementation. Group projects include design and implementation of a data base system.</p>
<p>439G Topology. 3 hours. Prerequisite: Math 431 or permission of instructor. Orderings; topological spaces; mappings; separation of axioms; compactness; connectedness; arcwise connectedness; metric spaces.</p>	<p>544 Compiler Theory and Design. 3 hours. Prerequisites: CS 442 and 444. Formal properties of programming languages and the techniques used to construct compilers for these languages. Topics include parsing techniques, symbol table construction, code generation, etc. Class will complete a programming project.</p>
<p>450G Complex Variables. 3 hours. Prerequisite: Math 327. Complex number plane; analytic functions of a complex variable; integration; power series; calculus of residues; conformal representation; applications of analytic function theory.</p>	<p>547 Techniques of Mathematical Programming. 3 hours. Prerequisites: CS 241 and Math 327. Methods for optimization of functions of one or more variables including studies of algorithms for both constrained and unconstrained problems. Computing assignments will illustrate techniques such as Fibonacci search, Pattern search, the methods of Powell and Davidon, and SUMT.</p>
<p>470G Introduction to Operations Research. 3 hours. Prerequisite: Math 329 or 327 or consent of instructor. Principles and techniques including linear programming, queuing theory, inventory models, deterioration and replacement theory, sensitivity analysis and dynamic programming.</p>	<p>595 Advanced Topics in Computer Science. 1 to 3 hours. Prerequisites: 9 hours of CS and permission of instructor. Significant problems and current developments in computer science. May be repeated, with a different topic, for a maximum of 6 hours.</p>
<p>475G Selected Topics in Mathematics. 1-3 hours. Prerequisite: Permission of instructor. Significant problems and developments of current interest.</p>	<p>599 Thesis Research and Writing. 6 hours.</p>
<p>599c Maintaining Matriculation. 1 to 6 hours.</p>	<p>406G Numerical Analysis II. 3 hours. Prerequisites: CS 405 and Math 331. Cross-listed with Math 406G.</p>
<p>442G Information Structures. 3 hours. Prerequisite: CS 343 or 348. Arrays, lists, trees, storage and file structures, sorting and searching techniques, etc. PL/1 capabilities: structures, pointers, list processing, use of macros, etc.</p>	<p>443G Data Base Management Systems. 3 hours. Prerequisites: CS 242, 343, and 442. Design and implementation of data base management systems. Assigned projects will require use of several established data based systems such as WKU's Transportation Data Base and library system.</p>
<p>444G Programming Languages. 3 hours. Prerequisite: CS 442 or permission of instructor. Survey of procedure-oriented and special-purpose languages. Emphasis on the syntactic and semantic structures present in these languages.</p>	<p>445G Operating Systems. 3 hours. Prerequisites: CS 340, 342, 442. Overview of a comprehensive operating system with emphasis on procedure libraries, storage management and protection, task scheduling, linkage editing, etc.</p>
<p>446G Interactive Computer Graphics. 3 hours. Elementary topics in interactive computer graphics. Includes both input and display devices and techniques for 2-D and 3-D transformations, as well as difficulties encountered in these areas. Computing assignments will emphasize interaction, data structures, and applications to various disciplines.</p>	<p>447G System Simulation. 3 hours. Prerequisites: CS 241 and Math 329. Computer simulation of theoretical systems and realtime processes. Includes abstract properties of simulations; basic algorithms for lists, list structures, and stochastic processes; general purpose simulation languages. Term project simulation program required.</p>
<p>475G Selected Topics in Computer Science. 1-3 hours. Significant problems and developments in computer science.</p>	

The following 400-level CS courses may be taken for graduate credit

<p>405G Numerical Analysis I. 3 hours. Prerequisite: Math 327, CS 240, or equivalent. Cross-listed with Math 405G.</p>



DEPARTMENT OF PHYSICS AND ASTRONOMY

THOMPSON COMPLEX—CENTRAL WING
ROOM 246 (502) 745-4357

N. Frank Six, Head

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G. Moore, J. Parks, M. Russell, F. Six

Associate Professors: D. Bryant, E. Dorman, A. Fennelly,
K. Hackney, R. Hackney, R. Hall, M. Longmire

Assistant Professors: T. Bohuski, C. Wolff

Graduate Courses in Physics and Astronomy

510 Methods of Mathematical Physics I.

3 hours.

Prerequisite: Differential Equations.
Selected topics from the mathematical
methods of classical physics.

520 Atomic and Molecular Spectra. 3 hours.
Prerequisite: Phys 480.

The structure of atomic and molecular
spectra including quantum mechanical
energy states, wave mechanical rules for
combining momenta and magnetic
moments, the Stark and Zeeman effect.

530 Statistical Mechanics. 3 hours.

Prerequisites: Phys 450, 480.
Statistical theories of body systems and
their thermodynamic consequences.
Topics include the Boltzmann equation,
Liouville's theorem phase space, ensemble
theory, entropy and probability, etc.

540 Electromagnetic Theory. 3 hours.

Prerequisite: Phys 440.
Electrostatics, magnetostatics, and potential
theory; Maxwell's electrodynamics;
the theory of wave optics, refraction,
interference and diffraction; radiation of
electric and magnetic multipole fields.

550 Classical Mechanics. 3 hours.

Prerequisite: Phys 450.
Dynamics of particles and rigid bodies,
the methods of Lagrange and Hamilton,
the Hamilton-Jacobi equation, and the
theory of small vibrations.

580 Quantum Theory. 3 hours.

Prerequisite: Phys 480.
Wave and matrix mechanics, general
operator methods, angular momentum,
symmetry principles and conservation
theorems, variational principle and elementary
perturbation theory.

598 Graduate Seminar. 1 hour.

Discussion of recent and current literature
on developments in experimental and
theoretical physics.

660 Theory of Solids. 3 hours.

Prerequisite: Phys 480.
Matter in the condensed state emphasizing
quantum mechanical aspects, the be-

Degrees Offered: *Master of Science in Physics
(predoctoral option and Engineering Physics option), Master
of Arts in Education (Physics minor)

*Master of Science in Physics temporarily suspended.

Master of Arts in Education

The Department offers three program options leading to the Master of Arts in Education: a physics minor of 12-15 hours, a science area major of 18-21 hours, and a math-science major of 18-21 hours. Each of these programs may include physics and astronomy courses which familiarize the teacher with modern instructional techniques and curricula and strengthen the academic background. In all cases, the remainder of the 30 hours will be taken in professional education.
(See physics and astronomy courses specifically for students pursuing the Master of Arts in Education degree.)

havior of electrons in solids and the thermal and magnetic properties of matter.

670 Theoretical Nuclear Physics. 3 hours.

Prerequisite: Phys 480.
Static properties of nuclei; descriptive aspects of radioactivity and nuclear reactions; systematics of nuclear energies; nuclear models, decay, reactions, and forces.

675 Advanced Topics in Physics.

1 to 3 hours.
Directed study under supervision of a faculty member. May be repeated with different topics.

The following 400-level courses may be taken for graduate credit

404G Experimental Physics 4. Optics. 1 hour.

Corequisite: Phys 441G.
The conclusions and concepts of optics and techniques of experimental optics.

406G Experimental Physics 5. Solid State.

1 hour.
Corequisite: Phys 460G.
Includes solid state experimental techniques and demonstrations from lecture material.

407G Experimental Physics 6. Nuclear.

1 hour.
Prerequisite: Phys 302.
Experience with modern nuclear detection equipment, examination of some nuclear properties via experimental methods, and demonstration of nuclear radiation as an analytical research tool.

**409G Experimental Physics 7. Research
Techniques.** 2 hours.

Prerequisite: Two years of college physics.
Laboratory techniques in experimental research. Includes drawing and fabrication of apparatus, technical photography, and statistical treatment of data.

414G Introductory Astrophysics. 4 hours.

Prerequisites: Two years of college physics and permission of the instructor.
Topics in solar system and stellar astrophysics. Includes radiation theory, solar phenomena; the fundamentals of radio astronomy, pulsars, quasars, and cosmic X-ray sources, etc.

431G Radiation Biophysics. 4 hours.

(Also, Biology 431)
Prerequisites: Phys 201-202 or Phys 231-232.

The properties of the various forms of radiation and their interactions with, and effects on, living matter. Laboratory offers training in monitoring ionizing radiations and in techniques of radioactive isotopes.

440G Electricity and Magnetism. 3 hours.

Prerequisites: Phys 350 and Math 331.
Classical electricity and magnetism with emphasis on fields, potentials, conductors, dielectrics, etc.

441G Optics. 3 hours.

Corequisite: Phys 404G.
Prerequisites: One year of college physics and one year of calculus.
Geometrical and physical optics including wave propagation, refraction, dispersion, defraction, and polarization.

450G Theoretical Mechanics. 3 hours.

Prerequisites: Phys 350, Math 331.
Rigid body motion, moving coordinate systems, continuous media, and Lagrange's equations.

460G Solid State Physics. 3 hours.

Prerequisite: Phys 320.
Corequisite: Phys 406G.
Theory of solids. Topics include geometrical and X-ray crystallography. Maxwell-Boltzmann and Fermi-Dirac statistics, free electron theory of metals, Brillouin zones, band model of semiconductors, and the Hall effect.

465G Geophysics. 3 hours.

(Also cross-listed as Geol 465)
Prerequisites: Geol 111 and one year of college physics or permission of the instructor.

General and exploration geophysics. Topics include the origin of the earth and the solar system, the earth's interior, gravity and isostacy, seismology, upper atmosphere, continents and ocean basins, etc.

470G Nuclear Physics. 3 hours.

Corequisite: Phys 407G.
Prerequisite—Phys 320.
Properties of the nucleus including nuclear forces, alpha emission, radioactiv-

ity, fundamental particles, and particle accelerators.

475G Selected Topics in Physics.

1 to 3 hours.

Directed study under the supervision of a faculty member. May be repeated with different topics.

480G Quantum Mechanics. 3 hours.

Prerequisites: Phys 320, 350, 450.

Fundamental principles of quantum mechanics including the hydrogen and helium atoms, the harmonic oscillator, and the Schroedinger wave equation.

Courses which may be taken for graduate credit toward the Physics minor, Science Area major, and Math-Science major under the MA in Education

501 Classical Developments in Physics.

3 hours.

Physics for junior high and high school teachers covers the discovery of physical

laws, the origin of forces, motion, energy, momentum, conservation principles, wave phenomena, and electromagnetics.

502 Modern Developments in Physics.

3 hours.

Physics for junior high and high school teachers. Covers atomic structure, the nucleus, elementary particles, probability and uncertainty, and special relativity. Emphasizes the impact of twentieth century discoveries on the foundations of physical law.

503 Physics Demonstrations and Laboratory Exercises. 3 hours.

Designed to acquaint the junior high and high school teacher with laboratory equipment and demonstrations for use in secondary education. Utilization of a laboratory library containing approximately sixty experiments, in place.

505 Investigations in Physics. 3 hours.

Topics of individual interest relating to the teaching of physics.

401G Physical Science I and II. 3 hours.

402G The primary physical properties of matter and forms of energy. Emphasis on measurement process, symbolism, graphical analysis algebraic calculations, etc.

405G Astronomy for Teachers. 3 hours.

Selected topics in astronomy for elementary and secondary teachers. Not applicable toward physics major.

410G Physics for Elementary Teachers. 3 hours.

Covers the areas of physics relevant to the teaching of science in the elementary school. Includes laboratory experiences.

425G Modern Concepts in Physics. 3 hours.

Prerequisite: One year of college physics.

Current ideas in atomic and nuclear physics, astronomy and space physics, solid state and low temperature physics. Includes demonstrations, experiments, and field trips.



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HAYDEN, DELBERT J.	Ph.D., Florida State University, Professor of Child Development and Family Living	KALAB, KATHLEEN A.	Ph.D., Vanderbilt University, Professor of Sociology
HAYS, CHARLES T.	Ph.D., C.P.A., University of Missouri, Professor of Accounting	KEARNY, EDWARD N.	Ph.D., American University, Professor of Government
HAZZARD, MARY E.	Ph.D., New York University, Professor of Nursing	KECK, PEGGY D.	Ed.D., University of Oklahoma, Professor of Business Education and Office Administration
HEDGES, ROY D.	Ph.D., Florida State University, Professor of Child Development and Family Living	KELL, CARL L.	Ph.D., University of Kansas, Professor of Speech
HEGEN, EDMUND E.	Ph.D., University of Florida, Professor of Geography	KERSENBAUM, SYLVIA	Artist Diploma, Academia di Santa Cecilia (Rome), Professor of Music
HEIN, EDWARD C.	Ed.D., University of Northern Colorado, Professor of Industrial Technology	KESLER, W. JACKSON	Ph.D., University of Texas, Associate Professor of Theatre
HELDMAN, JAMES M.	Ph.D., University of North Carolina, Professor of English	KIBBEE, DOUGLAS A.	Ph.D., Indiana University, Assistant Professor of Modern Languages
HELLSTROM, WARD	Ph.D., University of Illinois, Professor of English	KLEIN, MICHAEL E.	Ph.D., Columbia University, Associate Professor of Art
HENRICKSON, CHARLES H.	Ph.D., State University of Iowa, Professor of Chemistry	KOPER, JAMES A.	Ed.D., University of Missouri, Professor of Education
HESSLEY, RITA K.	Ph.D., University of Missouri-Rolla, Associate Professor of Chemistry	KREISLER, CARL W.	Ed.D., Indiana University, Professor of Educational Leadership
HICKS, JAMES W.	Ed.D., University of Tennessee, Professor of Education	KRENZIN, JOAN L.	Ph.D., University of Wisconsin, Associate Professor of Sociology
HICKS, RETA D.	Ed.D., University of Southern Mississippi, Associate Professor of Education	KUMMER, WILLIAM G.	Ph.D., University of Utah, Associate Professor of Recreation
HIGGINS, C. WAYNE	Ph.D., University of Texas-Medical Branch, Associate Professor of Health Care Administration	LAMAN, ARCHIE E.	Ed.D., University of Arkansas, Professor of Education
HOBBS, WAYNE	Ph.D., Tulane University, Professor of Music	LANE, WILLIAM L.	Th.D., Harvard University, Professor of Philosophy and Religion
HOFFMAN, EUGENE	Ph.D., Iowa State University, Associate Professor of Biophysics	LANEY, SHIRLEY A.	Ph.D., University of Texas, Associate Professor of Physical Education
HOFFMAN, WAYNE L.	Ph.D., University of Florida, Professor of Geography	LAYNE, C. CLINTON	Ph.D., Southern Illinois University, Professor of Psychology
HOLY, NORMAN L.	Ph.D., Purdue University, Professor of Chemistry	LAYNE, LOIS E.	Ph.D., Southern Illinois University, Associate Professor of Psychology
HOURIGAN, WILLIAM R.	Ph.D., Ohio State University, Professor of Health	LEE, DAVID D.	Ph.D., Ohio State University, Associate Professor of History
HOUSE, STEPHEN D.	Ed.D., Indiana University, Assistant Professor of Educational Leadership	LEEPER, HOWARD T.	Ed.D., Texas A & M University, Assistant Professor of Industrial Education and Technology
HOUSTON, MARTIN R.	Ph.D., Vanderbilt University, Professor of Biology	LEONARD, WILLIAM E.	Ph.D., Ohio State University, Professor of Theatre
HOWE, E. MARGARET	Ph.D., University of Manchester, Professor of Philosophy and Religion	LILE, STEPHEN E.	Ph.D., University of Kentucky, Professor of Economics
HOWSEN, ROY M.	Ph.D., University of Arkansas, Assistant Professor of Economics	LITTLE, ALTON D.	Ed.D., University of Georgia, Professor of Recreation
HOWTON, BETSY	Ph.D., University of Alabama, Associate Professor of Psychology	LITTLE, LEROY	Ph.D., George Peabody College, Professor of English
HOYT, ROBERT DAN	Ph.D., University of Louisville, Professor of Biology	LIVINGSTON, DAVID	Ph.D., Ohio State University, Professor of Music
HUMPHREY, DOUGLAS L.	Ph.D., Ohio University, Professor of Physics and Astronomy	LLOYD, WILLIAM G.	Ph.D., Michigan State University, Professor of Chemistry
HUNTER, NORMAN W.	Ed.D., University of Toledo, Professor of Chemistry	LOHR, J. GLENN	H.S.D., Indiana University, Professor of School Health

LONG, JOHN F.	Ph.D., Brandeis University, Assistant Professor of Religion	MOORE, GEORGE C.	Ph.D., Northwestern University, Professor of Physics and Astronomy
LONGMIRE, MARTIN S.	Ph.D., Massachusetts Institute of Technology, Associate Professor of Physics and Astronomy	MOORE, VIOLET	Ph.D., Southern Illinois University, Professor of Vocational Home Economics
LOWE, LARRY S.	Ph.D., University of Washington, Associate Professor of Marketing	MORGAN, MICHAEL	Ph.D., University of South Carolina, Associate Professor of Economics
LOWMAN, PAULINE	Ph.D., George Peabody College, Associate Professor of Mathematics and Computer Science	MORRISS, RUTH T.	M.A., George Peabody College, Assistant Professor of Music
LOWRY, MARK, II	Ph.D., Syracuse University, Professor of Geography	MOSBY, CHARMAINE A.	Ph.D., University of North Carolina, Associate Professor of English
LUCAS, MARION B.	Ph.D., University of South Carolina, Professor of History	MUNSON, ALVIN	Ed.D., University of Nebraska, Professor of Education
MARTIN, ROBERT L.	Ed.D., University of Georgia, Associate Professor of Modern Languages	MURPHY, FREDERICK I.	Ph.D., University of Florida, Professor of History
MARTIN, VERNON N.	Ph.D., University of Kentucky, Professor of Government	NASH, RONALD H.	Ph.D., Syracuse University, Professor of Philosophy and Religion
MARTRAY, CARL R.	Ph.D., University of Alabama, Professor of Psychology	NELSON, ROBERT E.	D.B.A., Indiana University, Professor of Finance
MASANNAT, GEORGE S.	Ph.D., University of Oklahoma, Professor of Government	NEUBER, FRANK W.	Ph.D., University of Oregon, Professor of Government
MASON, RICHARD L.	Ph.D., Florida State University, Assistant Professor of Child Development and Family Living	NICELY, KENNETH A.	Ph.D., North Carolina State University, Professor of Biology
MAYHEW, LARRY D.	Ph.D., Vanderbilt University, Associate Professor of Philosophy	NORMAND, WILL C.	Ph.D., Louisiana State University, Professor of Agriculture
McCELVEY, GEORGE E.	Ph.D., Duke University, Professor of English	OAKES, JOHN	M.F.A., University of Iowa, Associate Professor of Art
McFARLAND, SAM G.	Ph.D., Vanderbilt University, Professor of Psychology	O'CONNOR, J. REGIS	Ph.D., Indiana University, Professor of Speech
McDOWELL, NORMAN M.	D.P.H., University of Texas, Assistant Professor of Health	O'CONNOR, JOHN	Ph.D., George Peabody College, Professor of Psychology
McGREGOR, JACK D.	Ph.D., University of Illinois, Professor of Geology	OGLESBY, BURCH E.	Ph.D., Ohio University, Professor of Physical Education
McGUIRE, JAMES E.	Ph.D., Purdue University, Professor of Agriculture and Education	OTTO, ROBERT A.	Ph.D., University of Iowa, Associate Professor of Education
McKENZIE, ROBERT G.	Ph.D., University of Iowa, Assistant Professor of Education	OTTO, ROBERT W.	Ph.D. Northwestern University, Associate Professor of Business
McMAHON, DOROTHY E.	Ph.D., Vanderbilt University, Professor of English	OWEN, ERNEST H.	Ed.D., University of Florida, Associate Professor of Psychology
McMAHON, WILLIAM	Ph.D., University of Chicago, Professor of English	PADILLA, RAUL H.	Ph.D., University of Illinois, Associate Professor of Modern Languages
MEADORS, WILLIAM J.	D.P.E., Springfield College, Professor of Physical Education	PANCHYSHYN, ROBERT	Ph.D., University of Iowa, Professor of Education
MELVILLE, ROBERT	Ed.D., Utah State University, Professor of Education	PANKRATZ, ROGER S.	Ph.D., Ohio State University, Professor of Education
MENDEL, RAYMOND M.	Ph.D., Iowa State University, Associate Professor of Psychology	PARKER, JOHN D.	Ph.D., University of Georgia, Professor of Government
METZE, LEROY P.	Ph.D., University of Houston, Professor of Psychology	PARKS, J. E.	Ph.D., University of Kentucky, Professor of Physics and Astronomy
MILLER, JIM WAYNE	Ph.D., Vanderbilt University, Professor of Modern Languages	PEARSON, EARL F.	Ph.D., Vanderbilt University, Associate Professor of Chemistry
MILLER, LARRY D.	Ph.D., University of Michigan, Associate Professor of Speech	PEASE, EDWARD J.	Ph.D., Indiana University, Professor of Music
MILLER, RICHARD L.	Ph.D., University of Houston, Professor of Psychology	PETERIE, D. NEIL	Ed.D., University of Missouri, Professor of Art
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MONROE, E. G.	Ph.D., University of Ottawa, Professor of Art	PFOHL, WILLIAM F.	Psy.D., Rutgers University, Associate Professor of Psychology
MONROE, EULA E.	Ed.D., George Peabody College of Vanderbilt University, Associate Professor of Education	PHILHOURS, JOEL	Ph.D., Kansas State University, Professor of Accounting
MONTELL, W. LYNWOOD	Ph.D., Indiana University, Professor of Folk Studies	PICKARD, CLAUDE E.	Ph.D., University of Nebraska, Professor of Geography
MOORE, CONRAD T.	Ph.D., University of California at Los Angeles, Associate Professor of Geography	PITTMAN, FRANK M.	Ed.D., Texas A & M University, Professor of Industrial Education and Technology
		POE, RETTA E.	Ph.D., University of Missouri, Associate Professor of Psychology

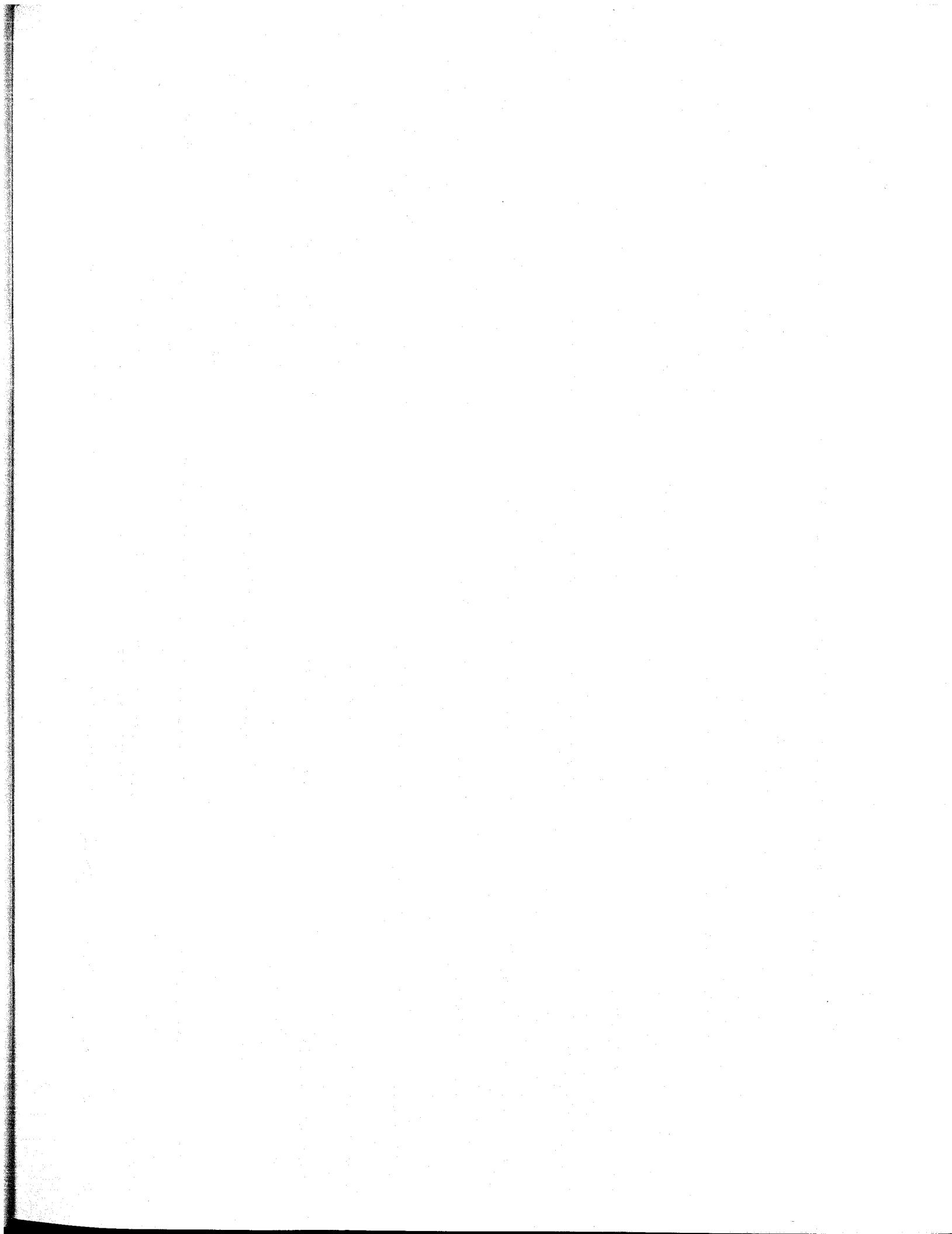
POLLOCK, JOHN C.	Ph.D., University of Colorado, Associate Professor of Education	SCARBOROUGH, JOHN A.	Ed.D., Columbia University, Professor of Education
POWERS, R. GLENN	Ph.D., Memphis State University, Associate Professor of Mathematics and Computer Science	SCHIEFERDECKER, IVAN E.	M.F.A., State University of Iowa, Professor of Art
PRICE, JIMMIE O.	Ed.D., University of Alabama, Professor of School Health	SCHIRA, NORMA J.	Ed.D., University of Illinois, Associate Professor of Allied Health Education
PRINS, RUDOLPH	Ph.D., University of Louisville, Professor of Biology	SCHNACKE, STEPHEN B.	Ed.D., Ball State University, Professor of Educational Leadership
PUCKETT, D. HUGH	Ph.D., University of Virginia, Professor of Biology	SCHNEIDER, ROBERT M.	Ed.D., Michigan State University, Professor of Agriculture
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RAY, CHARLES M.	Ed.D., University of Kentucky, Professor of Business Education and Office Administration	SCHRADER, ROBERT	Ed.D., University of Wyoming, Professor of Educational Leadership
REASONER, JOHN W.	Ph.D., Iowa State University, Professor of Chemistry	SEEGER, C. RONALD	Ph.D., University of Pittsburgh, Professor of Geology
REDFIELD, DORIS	Ph.D., University of Arizona, Assistant Professor of Psychology	SHADOWEN, HERBERT E.	Ph.D., Louisiana State University, Professor of Biology
REEVES, DOROTHY E.	Ed.D., George Peabody College, Associate Professor of Educational Leadership	SHANK, LOWELL W.	Ph.D., Ohio State University, Professor of Chemistry
RICE, JAMES W.	Ph.D., University of Wisconsin-Madison, Professor of Finance and Quantitative Business Analysis	SHANNON, DAVID W.	Ed.D., University of Wyoming, Professor of Educational Leadership
RICH, E. EUGENE	Ed.D., University of Arkansas, Professor of Education	SHARPE, HOLLIE W.	Ed.D., University of Tennessee, Professor of Business Education and Office Administration
RILEY, CLAYTON	Ed.D., University of Missouri, Professor of Education	SHEELEY, VERNON L.	Ph.D., University of Wyoming, Professor of Educational Leadership
RILEY, JOHN T.	Ph.D., University of Kentucky, Professor of Chemistry	SHIRLEY, JOHN	Ph.D., Michigan State University, Associate Professor of Agriculture
RITTER, DONALD E.	Ed.D., Indiana University, Associate Professor of Education	SIMMONS, HERBERT N.	Ed.D., University of Kansas, Professor of Education
ROBE, HARRY R.	Ed.D., Indiana University, Professor of Psychology	SIMPSON, IMOGENE	Ed.S., George Peabody College, Professor of Library Science
ROBERTS, CHARLES A.	Ph.D., University of Georgia, Associate Professor of Economics	SIMPSON, ROBERT E.	Ph.D., University of Alabama, Professor of Psychology
ROBERTS, GEORGE D.	Ed.D., University of Missouri, Associate Professor of Industrial Education and Technology	SIMS, RUSSELL A.	Ed.D., University of Arkansas, Associate Professor of Recreation
ROBERTS, RICHARD A.	Ed.D., Oklahoma State University, Professor of Education	SIX, N. FRANK	Ph.D., University of Florida, Professor of Physics and Astronomy
ROBERTS, ROBERT C.	Ph.D., Yale University, Associate Professor of Philosophy	SKEAN, JAMES D.	Ph.D., University of Tennessee, Associate Professor of Biology
ROBINSON, FAYE	Ed.D., University of Tennessee, Professor of Educational Leadership	SLOAN, JULIUS J., III	Ph.D., Vanderbilt University, Associate Professor of Government
ROENKER, DANIEL L.	Ph.D., Kansas State University, Associate Professor of Psychology	SMITH, R. DOUGLAS	Ph.D., Southern Illinois University, Assistant Professor of Educational Leadership
ROIT, MARSHA L.	Ed.D., Harvard University, Assistant Professor of Education	SMITH, ROBERT C.	Ph.D., Louisiana State University, Associate Professor of Library Science
ROWE, DONALD R.	Ph.D., University of Texas, Professor of Environmental Engineering Technology	SPICELAND, JAMES D.	Ph.D., University of Exeter (England), Associate Professor of Philosophy
RUDOLPH, EVAN	Ph.D., University of Denver, Associate Professor of Speech	STEELE, FRANK P.	Ed.D., University of Tennessee, Professor of English
RUFF, ANN C.	Ed.D., Indiana University, Assistant Professor of Education	STEVENSON, ROBERT L.	Ph.D., Southern Illinois University, Professor of Education
RUFF, LOREN K.	Ph.D., Indiana University, Associate Professor of Theatre	STICKLE, FRED	Ph.D., Iowa State University, Assistant Professor of Educational Leadership
RUSSELL, JOHN P.	Ph.D., University of Florida, Associate Professor of Environmental Engineering Technology	STOKES, JOSEPH F.	Ph.D., George Peabody College, Professor of Mathematics and Computer Science
RUSSELL, MARVIN W.	Ph.D., University of Florida, Professor of Physics and Astronomy	STOMPS, WALTER	M.F.A., The School of the Art Institute of Chicago, Professor of Art
SALISBURY, RICHARD V.	Ph.D., University of Kansas, Professor of History	STONE, RICHARD G.	Ph.D., University of Tennessee, Professor of History
SANDEFUR, J. T.	Ed.D., Indiana University, Professor of Educational Leadership	SURVANT, JOSEPH W.	Ph.D., University of Delaware, Professor of English
SANDERS, JAMES E.	Ph.D., Michigan State University, Professor of Education	TANNER, PAUL	Ph.D., University of Minnesota, Assistant Professor of Public Health
		TAYLOR, KEITH H.	Ed.D., Indiana University, Associate Professor of Education

TAYLOR, SARA	Ed.S., George Peabody College, Associate Professor of Education	WASSOM, JOHN C.	Ph.D., Indiana University, Professor of Economics
THACKER, JACK W., JR.	Ph.D., University of South Carolina, Professor of History	WATSON, MARTHA F.	Ph.D., University of Kentucky, Professor of Mathematics and Computer Science
THOMPSON, FRANCIS H.	Ph.D., Texas Tech University, Professor of History	WATSON, THOMAS W.	D.M.E., University of Oklahoma, Professor of Music
TOMAN, FRANK R.	Ph.D., Kansas State University, Professor of Biology	WATTS, DAVID B.	Ed.D., University of Kentucky, Professor of Education
TOMAZIC, T. NORMAN	Ph.D., Ohio State University, Associate Professor of Industrial Education and Technology	WEAVER, WILLIAM C.	M.A., Ohio State University, Professor of Art
TRAFTON, JOSEPH L.	Ph.D., Duke University, Assistant Professor of Religion	WEIGEL, RICHARD D.	Ph.D., University of Delaware, Assistant Professor of History
TRAPASSO, L. MICHAEL	Ph.D., Indiana State University, Assistant Professor of Geography	WELLS, CARROLL G.	Ph.D., Vanderbilt University, Professor of Mathematics and Computer Science
TRAUGOTT, WILLIAM M.	Ph.D., Kansas State University, Professor of Educational Leadership	WENDT, DONALD D.	Ed.D., University of Missouri, Professor of Industrial Education and Technology
TROUTMAN, RICHARD L.	Ph.D., University of Kentucky, Professor of History	WESOLOWSKI, JAMES W.	Ph.D., University of Wisconsin, Professor of Mass Communication
TUCK, DONALD R.	Ph.D., University of Iowa, Professor of Philosophy and Religion	WEST, FRED E.	Ph.D., University of Iowa, Associate Professor of Health Care Administration
TUTHILL, STUART B.	Ph.D., University of Kentucky, Associate Professor of Sociology	WICKLANDER, DALE R.	Ph.D., University of Minnesota, Associate Professor of Mass Communication
UPDIKE, THOMAS L.	Ed.D., Auburn University, Associate Professor of Educational Leadership	WILDER, JERRY R.	Ed.D., George Peabody College, Professor of Educational Leadership
UTLEY, KENNETH W.	Ph.D., Ohio State University, Associate Professor of Business Education and Office Administration	WILKINS, CURTIS C.	Ph.D., Michigan State University, Professor of Chemistry
UVEGES, JOSEPH A.	Ph.D., University of Florida, Professor of Government	WILSON, GORDON, JR.	Ph.D., Purdue University, Professor of Chemistry
VEENKER, RONALD A.	Ph.D., Hebrew Union College, Professor of Philosophy and Religion	WILSON, RICHARD W.	D.H.S., Loma Linda University, Associate Professor of Public Health
VOKURKA, JOHN F.	Ed.D., Indiana University, Associate Professor of Education	WINN, LARRY	Ph.D., Indiana University, Professor of Speech
VOS, ARVIN G.	Ph.D., University of Toronto, Professor of Philosophy and Religion	WINSTEAD, JOE E.	Ph.D., University of Texas, Professor of Biology
WALLACE, KYLE	Ph.D., Vanderbilt University, Professor of Mathematics and Computer Science	WOLFF, CLARENCE N.	M.A., Western Kentucky University, Assistant Professor of Physics and Astronomy
WALLACE, LYSBETH M.	M.F.A., Cranbrook Academy of Art, Professor of Art	WORTHINGTON, JAMES P.	Ph.D., Ohio State University, Professor of Agriculture
WARD, ROBERT E.	Ph.D., State University of Iowa, Professor of English	WOZNIAK, PAUL R.	Ph.D., University of Massachusetts, Professor of Sociology
WASSOM, EARL E.	Ed.D., Oklahoma State University, Professor of Library Science	YUNGBLUTH, T. ALAN	Ph.D., University of Minnesota, Professor of Biology
		ZACHARIAS, DONALD W.	Ph.D., Indiana University, Professor of Speech

INDEX

Academic Year	8	Communication Disorders (see Teacher Education)	56
Accounting	37	Communication and Theatre	21
Accreditation	2	Comprehensive Examination	12
Administrative Staff	82	Computing Services	6
Admission Requirements	13	Cooperative Education	6
Initial procedures	13	Counseling Center	6
Applicants for master's degree	13	Counselor Education (see Educational Leadership)	44
Applicants for specialist degree	14	Course Load (student's)	10
Applicants from non-regionally accredited institutions	14	Course Numbering System	8
Transient students	13	Course Offerings (listed under the Appropriate Department)	8
Unclassified students	13	Course Substitutions	11
International students	14	Cultural, Religious, and Recreational Opportunities	4
Senior citizens	14	Degree Requirements (outline of)	15
Admission to Candidacy	12	Degrees Available	14
Advisor, graduate	11	Distributive Education	42
Advisory Committee (specialist project)	12-13	Doctoral Programs	16
Advisory Committee (thesis)	12-13	Aquatic Biology (with University of Louisville)	16
Agriculture	64	Chemistry of Free Radicals (with University of Louisville)	16
Application for Admission (following index)	92	Education (with University of Kentucky)	17
Application for Degree	13	Economics	38
Aquatic Biology, Cooperative Doctorate (with University of Louisville)	16	Education, Joint Doctorate (with University of Kentucky)	17, 46
Archives	6	Educational Leadership	43
Art	20	Elementary Education (see Teacher Education)	56
Assistantships, Graduate	7	Engineering Technology	75
Biochemistry	70	English	23
Biology	66	English and Allied Language Arts	23
Board of Regents	82	English Proficiency Evaluation for International Students	14
Business Administration	36	Examinations, for Master's and Specialist Degree Candidates	12
Business Distributive-Education and Office Administration	38, 42	Exceptional Child Education (see Teacher Education)	56
Candidacy (admission to)	12	Faculty, Graduate	83
Center for Career and Vocational Teacher Education	42	Fees	8-9
Chemistry	68	Finance and Quantitative Business Analysis	38
Chemistry of Free Radicals, Cooperative Doctorate (with University of Louisville)	16	Financial Assistance	7
Child Development and Family Living (see Home Economics and Family Living)	49	Folklore and Intercultural Studies (see Modern Languages and Intercultural Studies)	29
City and Regional Planning (see Geography and Geology)	71	Food Services	6
College of Arts and Humanities	19	Foreign Languages (see Modern Languages)	28
Art	20	Geography and Geology	71
Communication and Theatre	21	Geology (Geography and)	71
English	23	Government	25
Government	25	Grades	11
History	26	Graduate Advisor	11
Journalism	27	Graduate Assistantships	7
Modern Languages and Intercultural Studies	28	Graduate College	4
Music	30	History	4
Philosophy and Religion	31	Administration	4
Sociology and Social Work	32	Staff	82
College of Business Administration	36	Graduate Council	82
Accounting	37	Graduate Courses (see Course Numbering System)	8
Business-Distributive Education and Office Administration	38, 42	Graduate Degrees Available	14
Economics	38	Graduate Degrees, Outline of Requirements for	15
Finance and Quantitative Business Analysis	38	Graduate Management Admissions Test (GMAT)	11
Management and Marketing	39	Graduate Record Examination (GRE)	11
College of Education	41	Guidance, Rank I	47
Center for Career and Vocational Teacher Education	42	Hardin Planetarium	5
Educational Leadership	43	Health and Safety	74
Home Economics and Family Living	49	Helm-Cravens Library	5
Physical Education and Recreation	52	Historical Sketch of the University	4
Psychology	53	History	26
Teacher Education	56	Home Economics and Family Living	49
Non-Degree Programs	46	Housing Facilities	6
Rank II	46	Humanities, Master of Arts in (see Philosophy and Religion)	31
Rank I	46	Industrial Education	75
College of Science and Technology	63	Industrial Engineering and Technology	75
Agriculture	64	Intercultural Studies and Folklore	29
Biochemistry	70	International Students (English proficiency evaluation)	14
Biology	66	Journalism	27
Chemistry	68	Kentucky Library	5
Geography and Geology	71	Kentucky Museum	5
Health and Safety	74	Lecture Series	5
Industrial and Engineering Technology	75	Library Media Education	56
Mathematics and Computer Science	77	Library Services	5
Physics and Astronomy	80	Helm-Cravens	5
		Kentucky	5
		Science	5
		Loans	7
		Maintaining Matriculation	13
		Major Advisor	11

Management and Marketing	39	Schedule Changes	8
Master of Public Service	14, 16	School Administration (see Educational Leadership)	43
Administration	25	School Administration Program, Rank I	47
City and Regional Planning	71	School Psychometrist (see Psychology)	53
Counseling	44	Second Master's Degree (Guidelines for Obtaining)	12
Masters Degrees Available	14	Secondary Education (see Teacher Education)	56
Masters Degrees, Outline of Requirements for	15	Senior Citizens (Admission)	14
Master's Thesis	13	Senior Citizens (Scholarships)	7
Mathematics and Computer Science	77	Seniors Earning Graduate Credit	12
Media Services	5	Sociology and Social Work	32
Modern Languages and Intercultural Studies	28	Specialist Committee	12
Music	30	Specialist Degrees Available	15
Non-Degree Programs	46	Specialist Degrees (requirements for)	16
Rank II	46	Specialist Project	13
Rank I	46	Statement of Compliance	2
Oral Examinations	12	Student Responsibility	2
Philosophy and Religion	31	Summary and Procedures	91
Physical Education and Recreation	52	Teacher Education	56
Physics and Astronomy	80	Tech Aqua Biological Station	66
Planetarium (Hardin)	5	Theatre (Communication and)	21
Program of Study	11	Thesis	13
Program of Study Change	11	Thesis Committee	12
Project, Specialist	13	Time Limit for Completion of Degree	10
Psychology	53	Title IX	2
Rank II Programs	46	Transfer Credit	11
Rank I Programs (Guidance, School Administration, and Teacher)	46	Transient Students	13
Reading Education (see Teacher Education)	56	Unclassified Students	13
Recreational Activities	5	Veterans Administration Benefits	7
Registration Procedures	8	Visiting (transient) Students	13
Religious Life	5	Waiver	2
Research Grants	7	Withdrawal From Class	8
Research Tool Requirements	15	Workshops	7



SUMMARY OF PROCEDURES FOR APPLICANTS SEEKING THE MASTER'S DEGREE

WHAT TO DO	WHERE	WHEN
File application for admission (Form A)	Graduate College	Well in advance of expected date of entrance
Order 1 official copy of all transcripts sent to Graduate College	From all colleges attended	Transcripts are needed at least 30 days prior to beginning of semester of entrance
Take GRE (except MBA applicants)	Obtain application from University Counseling Center or Graduate College	Scores required for admission
Take GMAT (MBA applicants only)	Obtain application from University Counseling Center or Graduate College	Scores required for admission
Plan program of study (Form C)	Developed in cooperation with and approved by assigned departmental advisor(s) and submitted to Graduate College for approval	Prior to enrollment in hours beyond 12, including transfers, if any
Complete research tool requirements (When required)	Check with departmental advisor and Graduate College	During the first, or at the latest the second, term of enrollment
Apply for admission to candidacy (Form D)	Graduate College or departmental advisor	After the completion of 12 hours and any research tool requirements(s) and prior to enrollment in hours beyond 21
Addition or deletion of a course listed on approved program of study	See departmental advisor	Prior to enrollment in course to be substituted
Remove any incomplete grades	See departmental office	Incomplete (or X) automatically becomes "F" after one calendar year if work is not completed
Take comprehensive exam	See departmental advisor	After admission to candidacy and after completion of 21 hours. Report of results due in Graduate College one week prior to graduation
Submit Thesis (if required)	To thesis committee, then to the Graduate College	Thesis must be approved by committee and submitted to Graduate College for final reading at least 3 weeks prior to date of graduation
Apply for graduation and pay diploma fee	Obtain application from and pay fee to Registrar's Office	According to required deadlines. Information available from Registrar or Graduate College
Secure cap and gown	College Heights bookstore (must have receipt of payment of diploma fee)	Same as deadline for payment of diploma fee
Attend graduation, or give notification of absence	Registrar's Office	Comply with instructions mailed to all paid candidates

**WESTERN KENTUCKY UNIVERSITY
GRADUATE COLLEGE**

Application for Admission

Form A

1. Full Legal Name _____	(Last) _____	(First) _____	(Middle) _____	(Maiden) _____	2. _____	(Soc. Sec. No.) _____	
3. Addresses Current _____	(No. & Street) _____	(City) _____	(County) _____	(State) _____	(Zip Code) _____		
Permanent _____	(No. & Street) _____	(City) _____	(County) _____	(State) _____	(Zip Code) _____		
4. In an emergency, notify _____	(Name) _____	(Relationship) _____	(City) _____	(State) _____	() _____		
5. Telephone Nos. Home () _____	Office () _____	6. Sex () F () M					
7. Birthplace _____	(State, if U.S., or Country) _____	8. U.S. Citizen? () Yes () No	9. If no, are you a permanent resident? () Yes () No	Alien Reg. Number _____			
10. Birthdate _____	(Month/Day/Year) _____						
11. Place of Legal Residence _____	(State, if U.S., or Country) _____	12. U.S. Veteran? () Yes () No					
13. Ethnic Information () American Indian or Alaskan Native () Asian or Pacific Islander () Black () Hispanic () White							
14. List all educational institutions attended beyond secondary school level (including WKU).							
Attended							
Institution & Location	From	To	Major & Minor Fields			Degree, if any, & Date	
_____	_____	_____	_____	_____	_____	_____	
_____	_____	_____	_____	_____	_____	_____	
_____	_____	_____	_____	_____	_____	_____	
_____	_____	_____	_____	_____	_____	_____	

15. If baccalaureate earned from non-U.S. institution, enter date credentials submitted to Evaluation Service. _____

16. Have you taken the G.R.E. () Yes () No &/or the G.M.A.T. () Yes () No? 17. If yes, scores reported to WKU? () Yes () No

18. Employment History (begin with most recent)

Employer	Address	From	To
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

19. Enrollment Plans () On Campus () Extended Campus Year _____ () Fall () Spring () Summer

20. Teacher Certification held, baccalaureate level (if applicable)
 () Provisional Elementary () Provisional Secondary () Other _____
 Teacher Certification held, master's level (if applicable)
 () Standard Elementary () Standard Secondary () Other _____

21. For which one of the following admission categories are you applying?
 () Degree-seeking (master's, specialist, and doctoral applicants check program desired under "Degrees Available")
 () Unclassified (pursuing coursework only)
 () Transient (for transfer to another institution)
 () Certification coursework only Area _____
 () Fifth-year (Rank II, certificate renewal)
 () Rank I, Teacher: Elementary _____ Secondary _____
 () Rank I, Guidance: Elementary _____ Secondary _____
 () Rank I, School Administration: Seeking endorsement as Supt. _____ Supv. _____ Prin. _____ DPP _____

DEGREES AVAILABLE

MASTER OF ARTS IN EDUCATION			MASTER OF ARTS	MASTER OF SCIENCE
() Secondary _____	Education (Major) _____	(Minor) _____	() Child Dev. & Fam. Living () Communication () English () Folk Studies () History () Humanities () Psychology: () Clinical () School () Industrial () General () Sociology	() Agriculture () Biology () Chemistry () Communication Disorders () Computer Science () Geography () Health () Library Science () Mathematics () Physical Education () Recreation () Institutional and Home Environment: () Interior Design and Housing () Textiles and Clothing
*Education (Major) _____	(Minor) _____			
*If Reading emphasis desired, please indicate _____				
() Elementary _____	Early Childhood _____	Reading _____	MASTER OF PUBLIC SERVICE	() MASTER OF BUSINESS ADMIN. () MASTER OF MUSIC
_____	Exceptional Child _____	Librarian _____	() Counseling () Public Administration () City and Regional Planning	
() Exceptional Child _____	LBD _____	TMH _____		COOPERATIVE MASTER'S
() School Counselor: _____	Elementary _____	Secondary _____		() Nursing-University of Kentucky
() School Business Administrator				
() Student Personnel Services in Higher Education				
() General Education				

SPECIALIST IN EDUCATION

() Counseling () School Administration
 () Elementary () Student Personnel Services in Higher Education
 () Secondary

COOPERATIVE-DOCTORAL () Education-University of Kentucky

() Biology-University of Louisville
 () Chemistry-University of Louisville

Mail to: Graduate College

Western Kentucky University
 Bowling Green, Kentucky 42101

(Signature) _____

(Date) _____

APPLICATION INSTRUCTIONS

NOTE: Credentials submitted for admission purposes become the property of the University. If the applicant does not enroll within one year, the admission file is destroyed unless the student contacts the Graduate College.

Degree-Seeking Students must have forwarded to the Graduate College one **official transcript** each from the undergraduate degree-granting institution (unless WKU) and from any institution (except WKU) where course work has been pursued. The applicant who has not yet completed the undergraduate degree should have forwarded one transcript now and one after the degree is completed. The **Graduate Record Examination—Aptitude Section** is required of all except M.B.A. applicants, who must take the Graduate Management Admission Test. If already taken, the scores should be forwarded to the Graduate College.

Non-degree Students (e.g., students applying for Rank I or Fifth-year programs) must submit transcripts as outlined above.

Transient Students (pursuing advanced degrees at other institutions) will be mailed Form H, which must be completed and returned to the Graduate College by an official of the degree-granting institution.

Unclassified Students (pursuing coursework only) must have forwarded to the Graduate College an **official transcript** indicating completion of the undergraduate degree (unless earned at WKU).

International Students must follow "Admission Requirements for International Students." If you have not received the additional information (TOEFL, Financial Statement, etc.), contact the Graduate College.

STATEMENT OF COMPLIANCE

Western Kentucky University is committed to equal opportunity. It is an Equal Opportunity-Affirmative Action Employer and does not discriminate on the basis of age, race, color, religion, sex, national origin, or handicap in any employment opportunity. No person is excluded from participation in, denied the benefits of, or otherwise subjected to unlawful discrimination on such basis under any educational program or activity receiving federal financial assistance.

If you have experienced discrimination in such educational programs or activities, written inquiries about procedures that are available at the University for consideration of complaints alleging such discrimination should be directed to the President's Office, Western Kentucky University, Bowling Green, Kentucky 42101. Inquiries about such alleged discrimination also may be made directly to the Director, Office of Civil Rights, United States Department of Health, Education, and Welfare, Washington, D.C. 20201.

Inquiries about employment discrimination may be directed to the Affirmative Action Officer, Western Kentucky University, Bowling Green, Kentucky 42101, or The Commission on Human Rights, Commonwealth of Kentucky, 828 Capital Plaza Tower, Frankfort, Kentucky 40601, or Equal Employment Opportunity Commission, 1800 G Street, N.W., Washington, D.C. 20506, or Office of Federal Contract Compliance, United States Department of Labor, Washington, D.C.