

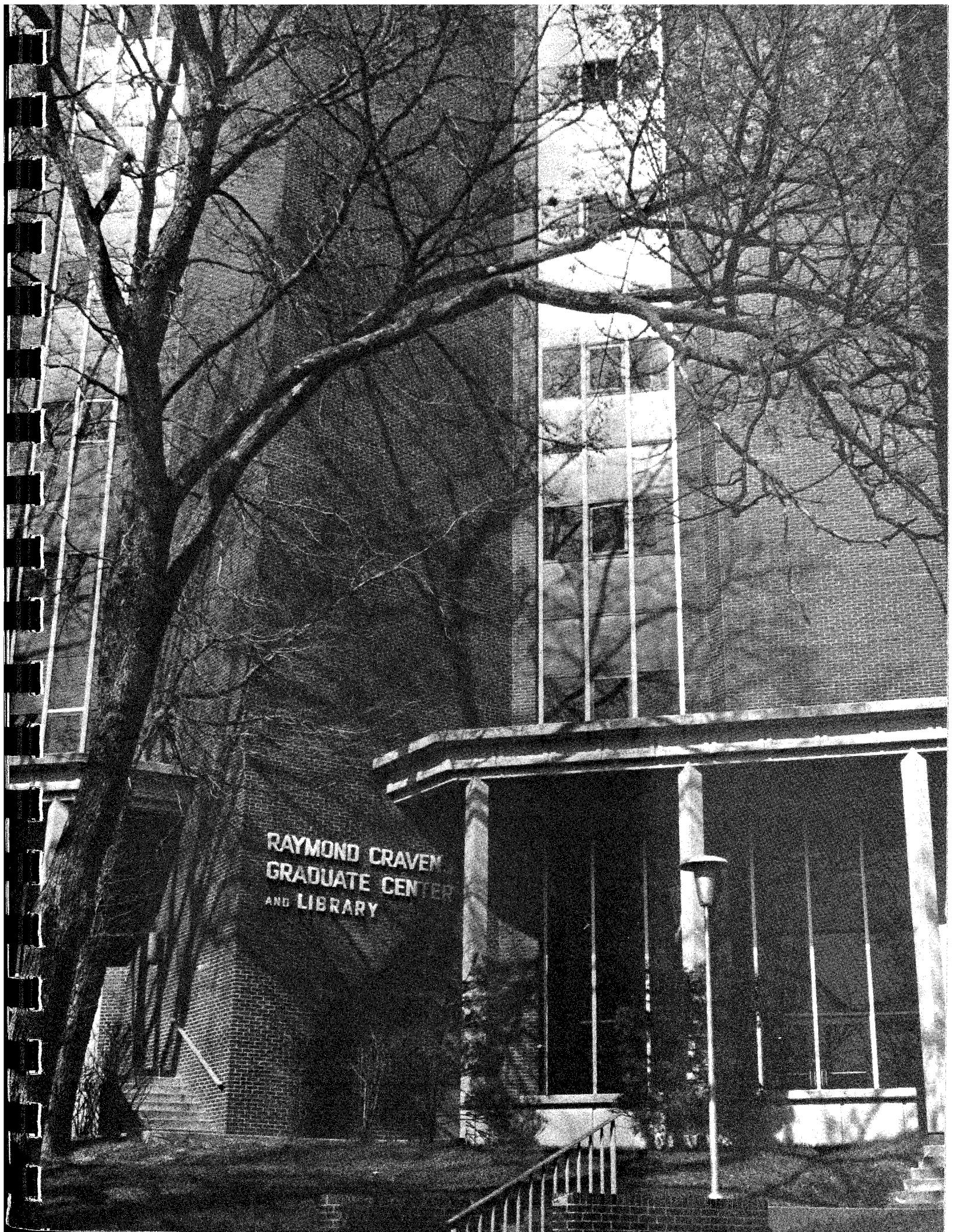
# WESTERN

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## KENTUCKY UNIVERSITY BULLETIN



Graduate Catalog Issue 1989-91



RAYMOND CRAVEN  
GRADUATE CENTER  
AND LIBRARY

## WESTERN KENTUCKY UNIVERSITY

### Accreditation

Southern Association of Colleges and Schools

### Membership

The Council of Graduate Schools in the United States  
 Association of State Colleges and Universities  
 American Association of Colleges for Teacher Education  
 American Association of University Women  
 American Council on Education

### Professional Accreditation

National Council for Accreditation of Teacher Education  
 National Association of Schools of Music  
 American Chemical Society  
 Council on Accreditation of the National Recreation and Park Association

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All statements in this publication are announcements of present policy only and are subject to change at any time without prior notice. They are not to be regarded as offers to contract.

### STUDENT RESPONSIBILITY

All colleges and departments of the university have certain requirements which must be met before a degree is granted. The student is responsible for fulfilling them. If requirements for graduation have not been met, 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 the regulations stated in this bulletin must be presented to the Graduate Council. The student must first present the request in writing, along with supportive documentation, to the department head in which the program of study is located. The request is then considered by the department and college committees before being acted upon by 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 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, 82 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.

### Directory (Area Code 502)

#### Departmental office numbers listed in the respective departments

Graduate College .....	745-2446
College of Arts, Humanities, and Social Science.....	745-2344
College of Business Administration.....	745-3893
College of Education and Behavioral Sciences.....	745-4662
College of Science, Technology, and Health.....	745-4448
Registrar's Office.....	745-3351
Certification Office.....	745-4896
Testing Arrangements (GRE, etc).....	745-3159
Financial Aid.....	745-2755
Veterans Educational Benefits.....	745-5482
Extended Campus Programs.....	745-5305
Owensboro.....	684-9797
Glasgow.....	651-6399
Fort Knox.....	942-8381
Russellville.....	726-2303
Housing Office.....	745-4359

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## 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.

## 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. 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 programs.

### 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 alterations 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.

### Theatre

The Department of Theatre and Dance and the Western Players present a series of programs during the academic year. Summer Theatre programs are provided. 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

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.

### 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. Income from this endowment is used to bring three or four distinguished lecturers to the Western campus each year.

### Planetarium

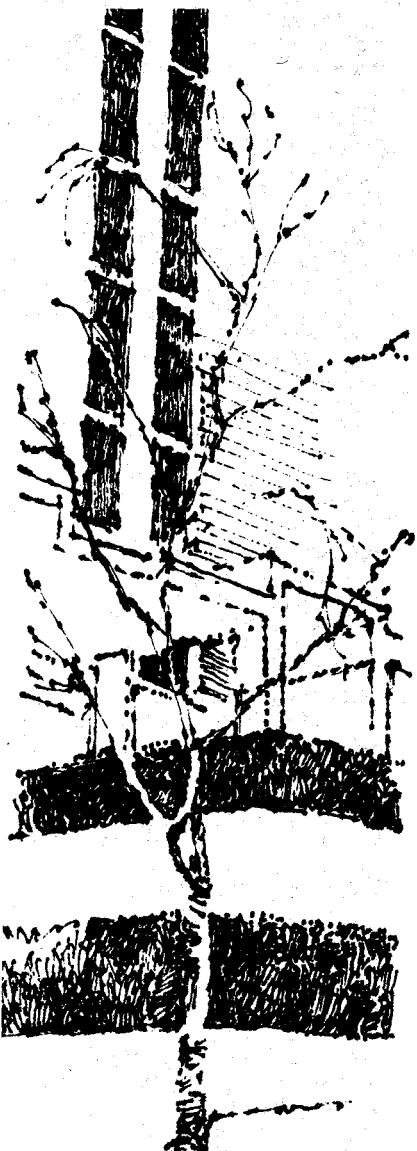
The Hardin Planetarium, adjacent to the Thompson Science Complex, contains a Projection Hemisphere Room and a roof-top observatory which houses a 121/2 inch Cassegrain reflector and associate photoelectric equipment.

### 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, and archery facilities are available on a no 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.



## RESEARCH FACILITIES AND MEDIA SERVICES

Support to the Research and Instruction Programs 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.

### University Libraries

Four library and resource centers serve the academic community at Western Kentucky University. They are (1) Helm-Cravens Library, (2) Kentucky Library and Museum, (3) Science Library, (4) the Educational Resources Center. The University Libraries collection includes more than one-half million books, 100,000 volumes of periodicals and one-quarter million government documents. Approximately 11,000 books are added to the collection along with over 5,000 subscriptions annually.

The **Helm-Cravens Library** constitutes the main library complex. Located near the center of campus, it houses the major portion of the University Libraries circulating book collection, as well as the main reference area and periodicals collection, the government documents and law collections, the main circulation services and reserve desks, the Extended Campus Library Services office, and the technical services unit for the University Libraries.

The **Kentucky Library and Museum** is located in the Kentucky Building. Also in the Kentucky Building are the Manuscripts and Folklife Archives collections. There study and research collections are non-circulating and consist of both printed materials and museum collections relating to all phases of Kentucky life. The Museum is involved year-round in events such as exhibits, workshops, and lectures designed for the University community and the general public.

The **Educational Resources Center** is located on the third floor of Tate C. Page Hall. The Ed Center provides information required for academic and enrichment activities and serves as a repository of many and varied types of curriculum and professional materials and resources in support of the departments in the College of Education and Behavioral Sciences.

The **Science Library** located in the central wing of the Thompson Science Complex provides books, periodicals, and reference and circulation services necessary for instruction and research in the Ogden College of Science, Technology and Health.

The University Libraries provide the following special services to graduate students: graduate carrels, for those engaged in thesis or research projects; interlibrary loan service at no charge; and online computer search service at cost. Students taking classes at remote locations through the WKU Extended Campus program may use the WKU Libraries special toll-free number to request materials or reference assistance.

Printed guides describing the many services and collections available in the WKU Libraries may be obtained at each service area or branch.

### Archives

The Archives is a repository for University records required for administrative functions and historic study of the institution and its genealogical antecedents.

### Media Services

The Division of Media Services supports the missions of the University through the production, acquisition, and dissemination of media resources.

### Audiovisual Services

The Audiovisual Center located in the center of the first floor of the Tate C. Page Hall provides films, videotapes and equipment in support of classroom media utilization, and offers instructional graphic and photographic production. The University film and videotape library contains over 5,539 titles. In addition, the Audiovisual Center, operates the Third District Film Library, a cooperative organization of 26 school districts, which contains over 6,000 films.

The faculty Media Center, located in Page Hall, Room 130, provides facilities and assistance for faculty to develop their own material. Capabilities include desk top publishing, photocopying and slide duplication, audio and video dubbing, and basic graphic processes.

The Student Media Center (Media Retrieval Center) is located on the second floor of the Helm Library and provides student access to computer and media resources. Capabilities include videotape, audio cassette, records, Apple and IBM compatible computers and access to the computer facilities of Academic Computing Services. Faculty may place materials on reserve for student access.

Western's public radio service,

WKYU-88.9FM in Bowling Green, and WDCL-89.7FM in Somerset, provides 19 hours per day of the highest quality music, news and public affairs programs to over 56 Kentucky counties and to an extensive area of north-central Tennessee.

In addition to programs produced by the station's professional staff, WKYU-FM/WDCL-FM presents National Public Radio's outstanding daily news programs.

The Educational Television area, located in the Robert Cochran Wing of the Academic Complex, produces television programs for classroom instruction, statewide distribution on cable systems and the Kentucky Educational Television network, and for national distribution to public television stations and other distribution agencies.

Western's own public television station, WKYU-TV, operates on television channel 24 with a power of 400,000 watts providing a variety of educational and informational programs as well as the first local public television service to south central Kentucky. The service radius is approximately 40 miles. The station is affiliated with the Learning Channel, PBS, and the Southern Educational Communications Association.

The campus radio station, WWHR 91.7MHz, provides a professional laboratory for students in Broadcast Communication. The station's service is directed to the Western student body. Programming originates from the studios on the 3rd floor of the Academic Complex. The station is operated by Media Services in cooperation with the Department of Communication and Broadcasting.

### Academic Computing and Research Services

Computing resources and consultation services on computing and research are provided by the Office of Academic Computing and Research Services. Primary computing resources are large IBM and Digital Equipment Corporation computers serving a number of open use terminal clusters scattered across the campus.

Microcomputers with popular applications programs are also found in each of these open clusters. These facilities are operated by Academic Computing to serve any student or faculty member, and their open hours approximate those of the library.

The wide variety of programming

languages and other programs available will support the vast majority of research projects. Highly specialized computing resources, including a super computer, are available through the Kentucky Educational Computing Network. BITNET connections through this network allow communications with hundreds of other colleges and universities. Additionally, individual colleges and departments operate a number of computing laboratories tailored to meet their specific instructional and research needs.

While the principal responsibility for research design and data analysis rests with the individual researcher, consultation on design, statistical analysis, and computer use is available to students and faculty. Western's subscriptions to the Interuniversity Consortium for Political and Social Research and other data archives provide a rich source of research materials. Other than in connection with externally funded projects, there are no charges for the use of the computing and consulting services provided by Academic Computing and Research Services.

### Cooperative Education

Cooperative education integrates classroom study with specific periods of supervised, career-related work experience. Graduate students work in public and private organizations throughout the country. Most participating departments offer academic credit for co-op experience. For additional information, contact the Cooperative Education Center, Cherry Hall, room 1.

## NON-ACADEMIC SERVICES

### Counseling Services Center

The Center, located in Room 408 of Tate Page Hall (CEB), provides personal counseling services and is responsible for the administration of national testing programs. Contact the Center for appointments and for test information.

### Housing Facilities

WKU students may choose from 17 residence halls--4 for men, 11 for women, and 2 co-ed facilities. Graduate student floors are available in Bemis Lawrence Hall for women and Pearce Ford Tower for men. Graduate students

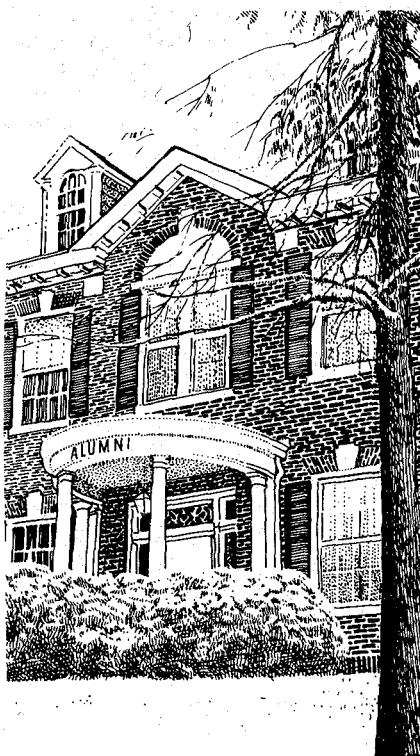
are also eligible to live in other residence halls if they so choose.

The Residence Hall Housing Agreement is for the entire academic year and requires an accompanying \$75 deposit to be accepted. The University determines room assignments on the basis of the date of receipt of the Residence Hall Housing Agreement and priority status.

Students are encouraged to forward their completed Residence Hall Housing Agreement (with the required \$75 deposit) to the Department of University Housing, WKU, Potter Hall, Bowling Green, KY 42101, immediately upon applying for admission to the University. Checks or money orders should be made payable to Western Kentucky University.

### Food Services

Food services maintained on campus include the Garrett Conference Center Cafeteria, the Downing University Center Cafeteria, Snack Bar and Grill, Unicorn Pizza Company in Gilbert Hall, Top of the Tower in Pearce Ford Tower, and a Pick-up Grocery in Pearce Ford Tower. Vending services are available in all dormitories. Supercard II, a declining-balance meal card is available in any amount and may be purchased at Food Services in Downing University Center, Room 124.



## FINANCIAL ASSISTANCE

### Loans

**National Direct Student Loan (Perkins 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 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 eight percent upon expiration of a six months grace period after student status ceases.

**Supplemental Loan for Students.** A non-need based loan program for students who do not qualify for the National Direct Student Loan or the Guaranteed Student Loan. Repayment is long-term.

### Workshops

The University participates in both 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 from:

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

For maximum consideration, apply before April 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.

## GENERAL INFORMATION

### Academic Year

The University provides a year-round instructional program consisting of the fall and spring semesters and a summer term.

### Registration Procedures

Computer generated packets are issued for the term that the student indicates he will begin taking classes. Continual enrollment assures a registration packet will be available at registration time. However, packets will be made, in addition, for each graduate student who has been enrolled at any time during the three terms prior to the current one for which he is registering.

Pre-registration as well as arena registration is conducted. Contact the Office of the Registrar, the Graduate College, the individual departments, or one of the four WKU-Centers for information concerning dates.

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.

### 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 the University

For various reasons it is occasionally necessary for a student to withdraw from the University. In such cases the student should report to the Office of the Registrar to initiate the withdrawal procedures. Students leaving the institution without an official withdrawal will receive failing grades in all courses in which enrolled and endanger their future status in the institution. Students withdrawing after the eighth week of the semester or the fourth week of a bi-term or comparable period during the summer session, must consult with their instructors as to the withdrawal grade. The official date of the withdrawal is the date written notification is received in the Office of the Registrar. Students

### Incentive Grant Program for Indiana and Tennessee.

Western Kentucky University offers an Incentive Grant Program to qualified graduate students who are residents of specific counties in Tennessee and Indiana. This program is open to students from Clay, Cheatham, Davidson, Macon, Robertson, Sumner, Trousdale, Williamson, and Wilson counties in Tennessee; and Perry, Posey, Spencer, Vanderburgh, and Warrick counties in Indiana.

Qualified students will pay the in-state registration fee, and the incentive grant will pay the difference between the in-state and out-of-state rates. Registration fees at the time of enrollment will determine the value of the incentive grant.

Graduate students admitted to WKU in good standing are eligible for these grants. Transient students will be required to have the visiting student form (Form H) on file to qualify for the grant. For more information, contact the Graduate College at (502) 745-2446.

### 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. Course load re-

quirements for graduate assistants are stated under "Course Load." Since graduate assistants have responsibilities for their own studies and for services to the University, they are not permitted to hold an assistantship while 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 bi-weekly.

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 1350 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 Life.

### Minority Assistantship Program

Consistent with the Commonwealth of Kentucky's desegregation plan, the University is committed to raising the proportion of black Kentuckians receiving graduate degrees. Graduate assistantships are available.

### Senior Citizens' Scholarship

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

wishing to return to Western at a later date must submit an application for readmission prior to the deadline for submitting applications.

### Student Schedule Changes

Changes in schedules may be made only within the first six class days of a semester or the first three days of a bi-term if such changes involve entering other classes. Courses which do not meet at least twice during the first six class days may be added up through, but not past, the day of the third class meeting.

During a semester, a student may withdraw from a course with a grade of W or F under the following conditions. It is recommended that faculty members inform students of this "W" period deadline.

- A. A student is permitted to withdraw from any course with a grade of W through the 8th week of class.
- B. After the 8th week of class, any student dropping a course receives an automatic F unless there are extenuating circumstances.

During a bi-term a student may drop a course with a grade of W or F under the following circumstances:

- A. A student is permitted to withdraw from any course with a grade of W through the 4th week of class;
- B. After the 4th week of class, any student dropping a course receives an automatic F unless there are extenuating circumstances.

Students should check the class schedule bulletin each semester for specific dates.

### Extended Campus

A full array of courses is offered by Extended Campus Programs in each of the four WKU-Centers, and in other service locations.

Registration is conducted on a schedule similar to that of regular campus registration. Admission information, registration materials, and course offerings are available at each of the WKU-Centers.

Any questions may be tended to the Office for Extended Campus Programs, Cravens Graduate Center 111, WKU, Bowling Green, KY 42101 (502) 745-5305 or 745-5575, or the appropriate WKU-Center:

Ft Knox---(502) 942-0737  
Glasgow Campus---(502) 651-6399  
Owensboro---(502) 684-9797  
Russellville---(502) 726-2303

### 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 400-level and have a "G" designation (i.e. 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.

### GRADUATE FEES

#### Spring or Fall Semester Full-time Students (per semester)

Resident -- \$620.00

Non-Resident -- \$1760.00

#### Part-time and Summer Students (per credit hour)

Resident -- \$68.00

Non-Resident -- \$194.00

**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 9 graduate hours during a regular semester and 6 graduate hours during a summer session is required for classification as a full-time student.**

### FEE ASSESSMENT POLICY

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 I.

**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 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 the 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 the active duty in this State pursuant to such orders. Resident status is similarly granted to one's unemancipated children.

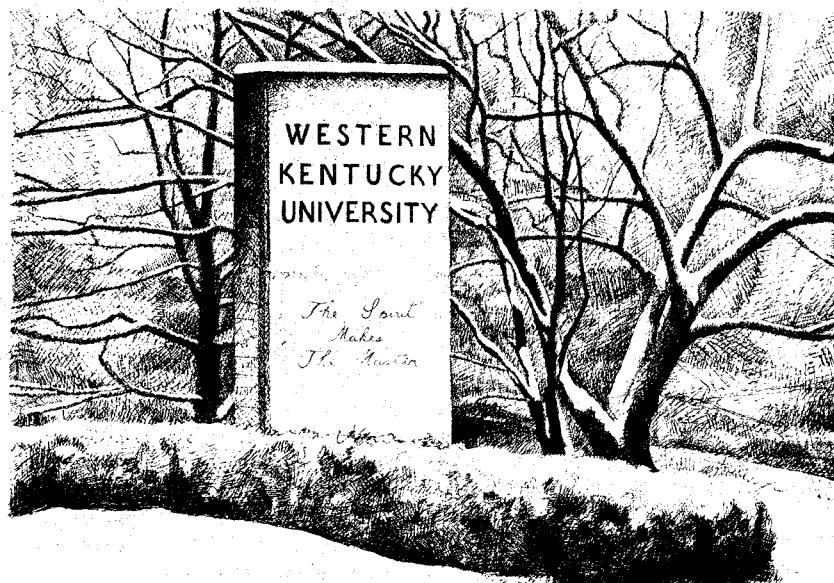
(5) In the event an unemancipated person's parents should have separate domiciles, one's domicile shall be that of the parent having legal custody. In the event neither parent has legal custody, one's domicile shall be that of the parent furnishing the greater financial assistance.

(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 institu-



tion, 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 significance 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 a 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 student for fee assessment purposes.

## ADMISSION REQUIREMENTS

### 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 an 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 degree work, (inclusive of all semesters needed in reaching that total), 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.

### 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 or have a grade point average of not less than 3.5 on the coursework for the master's degree program. Present to the Graduate College three letters of recommendation from graduate faculty and professional associates.

### Applicants from non-regionally accredited institutions

Transfers from non-regionally accredited institutions--with fewer than 60 semester hours earned at the regionally accredited, degree-granting institution--must have a grade point average of at least 2.5 on the hours earned at the degree-granting institution and a combined score of at least 1250 on the General Test of the GRE.

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, humanities, and natural science.

b. at least 12 semester hours (or the equivalent) in social and behavioral studies, including history.

c. at least 3 semester hour (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 bachelor's 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.

## **GRADUATE COLLEGE REGULATIONS**

### **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.

A graduate assistant is expected to be a full-time graduate student enrolled in 9-12 graduate hours each semester. An assistant may enroll in an undergraduate course(s) and apply those hours toward full-time status provided the course(s) is included on the official graduate program (Form C or B). When the course load includes both undergraduate and graduate courses, there must be a minimum of 6 graduate credits. For example, full-time graduate student status may be obtained with 6 graduate credits and at least 4 undergraduate credits. During the summer session, a graduate assistant must enroll in 3-6 hours, 3 of which must be graduate level.

### **Time Limitation for Completion of Degree**

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

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

### **Transfer Credit**

A maximum of 12 semester hours of graduate credit earned at another institution may be accepted toward meeting course requirements for the graduate program. However, a college-department may set more restrictive policies concerning the number of hours that will be accepted in the respective program. For example, the Business College permits only 6 hours of transfer work. In any case, these requirements must be met:

1. The credit(s) must have been earned at an accredited graduate institution.
2. The coursework to be transferred must be properly designated as having been taken for graduate credit.
3. The courses to be transferred must carry a grade of "B" or better.
4. Since Western students are responsible for all coursework taken in

both the major and minor areas, all transfer coursework is subject to this same requirement. In other words, the grade point average must be at least 3.0 (4.0 scale) on all graduate coursework appearing on the transcript before specific courses can be transferred.

5. Credits earned during a given term must not exceed the number of weeks of instruction and must have been earned within the five-year time limit for degree completion.

6. Any course(s) to be transferred must be appropriate for the degree program being followed and must be approved by the student's advisor(s) and the graduate dean. Approval must be obtained prior to enrollment in the coursework.

7. At least 12 hours in the major area and at least 6 hours in the minor area must be taken at Western.

The "Transfer Credit Practices" report published by the American Association of Registrars and Admissions Officers is the reference used in evaluating credits.

Transfer credits taken during the final semester of a program will delay program completion until official transcripts have been received in the Graduate College Office.

### **Correspondence Study**

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

### **Graduate Record Examination**

All degree-seeking students 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 enrollment in hours beyond 12, including transfer credits, 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 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 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 enrollment in hours beyond 12, including transfer credits, 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 hours.**

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 in the Graduate College.

## 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

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 or B), and in courses used to meet the research tool requirements for the MA, MS, and MAE-Elementary degrees. The minimum acceptable evaluation for a master's thesis or specialist project is a grade of "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.

## Repeating a Course

A course in which a student has received a passing grade (C or better) may not be repeated for the purpose of raising the grade. A course in which a grade of D or F is received may be repeated, but both grades are used in computing the grade point average.

## Research Tool Grades

For those students who choose programs that allow coursework in lieu of the foreign language requirement, a minimum grade of "B" must be attained. In the event two or more courses are involved, the average must be 3.0. If the grade earned in the single course or by averaging the grades in multiple courses is less than the required 3.0, the research tool course(s) may be repeated. Research tool requirements must be met prior to enrollment in the last 9 hours of the program.

## Admission to Candidacy (Form D)

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. Admis-

sion 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.

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 should submit 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) completion of the foreign language examination for M.A. and M.S. candidates. (M.A. Education-Elementary candidates must have completed Ed Fnd 500). For students who choose programs that allow course- work in lieu of the foreign language requirement, a minimum grade of "B" must be attained. In the event two or more courses are involved, the average must be 3.0. If the grade earned in the single course or by averaging the grades in multiple courses is less than the required 3.0, the research tool course(s) may be repeated.

(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.

**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.**

**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:

- (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.**

### 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 Master of Public Administration 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 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 or 12 hours 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 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 an individual who is not a member of Western's faculty. Those individuals must qualify and be recommended for adjunct 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 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 that student will fulfill graduation requirements.

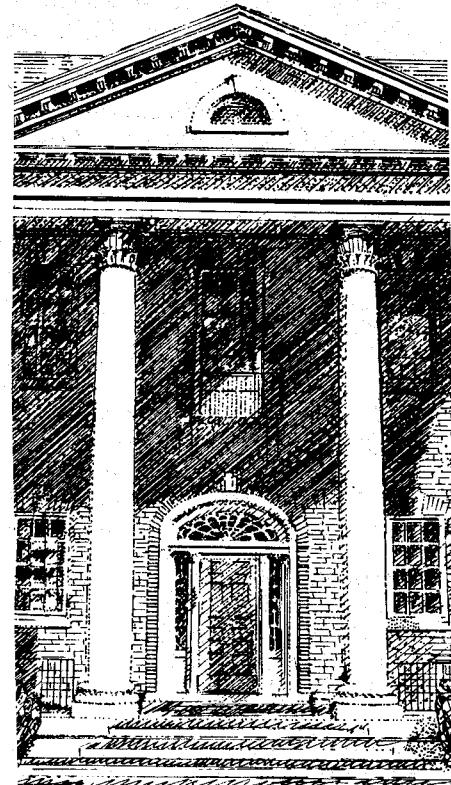
Complete instructions and requirements for preparing, submitting, and distributing the thesis or specialist project are given in "Guidelines for Master's Theses and Specialist Projects." Copies are available in the Graduate College Office. It is the student's responsibility to obtain and comply with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



*The Kentucky Museum,*

*Western Kentucky University*

## DEGREES AVAILABLE

**Master of Arts.** Programs leading to the M.A. degree are offered in the following fields: child development and family living, communication, economics, 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, 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, history, home economics, industrial education, 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, chemistry, communication, theatre, economics, English, folk studies, French, geography, German, health, history, home economics, industrial education, 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, city and regional planning, communication disorders, computer science, geography, health, home economics, library science, mathematics, physical education, and recreation.

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

**Master of Public Administration.** See Department of Government.

**Master of Public Service.** See Department of Counselor Education.

**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 fossil fuel chemistry with the University of Louisville.

## OUTLINE OF DEGREE REQUIREMENTS

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 prior to enrollment in hours beyond 12.

**Research Tool.** Unless the department has a specific requirement, the student may meet the research tool requirements 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. Research tool requirement must be met prior to enrollment in the last nine hours of program. 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. See "Research Tool Grades."

**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. 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

**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 prior to enrollment in hours beyond 12 to be used on the degree program.

**Research Tool.** The M.A. in Education-Elementary requires Ed Fnd 500 as the research tool. Hours earned in a research tool do not apply to the hours needed for the degree. A grade of "B" must be achieved and the course must be taken prior to enrollment in the last nine hours of the program. See "Research Tool Grades" for further information.

**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. 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 prior to enrollment in hours beyond 12.

**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, must have a minimum grade point average of 3.5 on the coursework for the master's degree program or 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 prior to enrollment in hours beyond 12.

**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 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 Master's Program with Eastern Kentucky University

Western participates in a cooperative master's program in criminal justice with Eastern Kentucky University. In this joint graduate program, Eastern provides 15 hours of criminal justice and Western provides 15 hours of supportive coursework. The entire program may be completed on Western's campus.

### 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 fossil fuel chemistry. 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 of 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.

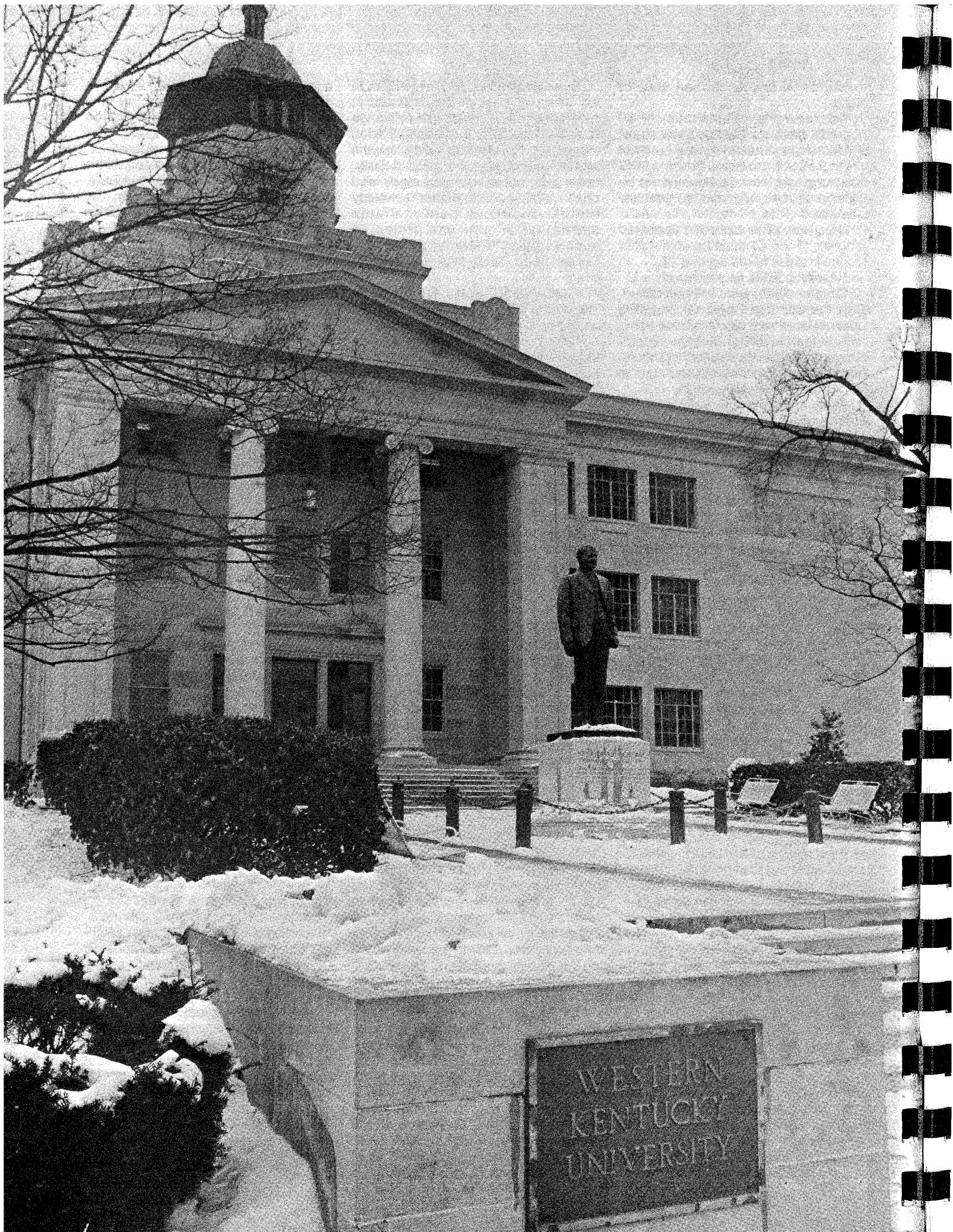
The final oral examination consists of a defense of the dissertation and a demonstration of the candidate's mastery of the field of study.

### 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.

### Academic Common Market

Kentucky, along with 12 other southern states, participates in the Academic Common Market--an interstate agreement for sharing uncommon programs. Numerous graduate programs are included in this cooperative arrangement. Kentucky residents accepted for admission into selected out-of-state programs can enroll on an in-state tuition basis. A catalog listing of the programs is available in the Graduate College office.



WESTERN  
KENTUCKY  
UNIVERSITY

**COLLEGE OF ARTS, HUMANITIES, AND SOCIAL SCIENCES****Ward Hellstrom, Dean****DEPARTMENTS****Art****Communication and Broadcasting****English****Government****History****Journalism****Modern Languages and Intercultural Studies****Music****Philosophy and Religion****Sociology, Anthropology, and Social Work****Theatre and Dance****DEGREES OFFERED****Master of Arts (Communication, English, Folk Studies, History, Humanities, Sociology)****Master of Music****Master of Public Administration****Majors and Minors Offered Under the Master of Arts in Education Degree****Art****Communication****Theatre (Minor only)****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**

**Nancy P. Rosnow, Head**

**Graduate Faculty**

**Professors: L. Fernandez, C. Forrester, J. Oakes,  
 N. Peterie, W. Stomps, W. Weaver**

**Associate Professors: P. Trutty-Coohill, L.  
 Notheisen**

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

Applicants must meet Graduate College requirements for admission. They are also expected to present to the Department of Art a portfolio of their work for departmental review or to obtain permission to enroll from the professor responsible for the area in which they intend to concentrate their study of art. The program requires a minimum of 36 semester hours. Both Plan A (thesis) and Plan B (non-thesis) are available.

Requirements for art majors pursuing the thesis option are as follows:

Art 511 and 512, Investigations in Art Education 6 hrs; Art 599, Thesis 6 hrs; Art studio courses (graduate) 9 hrs.; Art 405G, Art Theory and Criticism or graduate art history course 3 hrs.; Ed Fnd 500, Research Methods 3 hrs.; Sec Ed 580, Curriculum 3 hrs.; Sec Ed 531, Art Ed Seminar 3 hours; Psy 510, Adv Ed Psy; Psy 511, Learning, or 519 Clsrn Psy 3 hrs.

Requirements for art majors pursuing the non-thesis option are as follows:

Art 511 and 512, Investigations in Arts Education 6 hrs.; Art studio courses (graduate) 15 hrs.; Art 405G, Art Theory and Criticism or graduate art history course 3 hrs.; Ed Fnd 500, Research Methods 3 hrs.; Psy 510, Adv Ed Psy, Psy 511, Learning, or Psy 519, Clsrn Psy 3 hrs.

Students pursuing an art minor only must complete the following for a total of 30 hours.

Art 511 and 512, 6 hrs.; Art studio or art history, 6-9 hrs.; Ed Fnd 500, 3 hrs.; Sec Ed 580, 3 hrs.; Sec Ed 531, 3 hrs.; Education electives, 6-9 hrs.

For all art majors and minors, a terminal project and a final examination over coursework and related materials must be satisfactorily completed. An oral thesis defense is required under Plan A (thesis option).

**Graduate Courses in Art**

500	<b>Early Medieval Art.</b> 3 hours. Examination of topics and problems in Early Christian, Byzantine, Migration, Carolingian, and Ottonian art.	540	<b>Drawing.</b> 3, 6, 9 hours. Independent study utilizing traditional methods of drawing. Students are encouraged to investigate and utilize new directions.	599c	<b>Maintaining Matriculation.</b> 1 to 6 hours.
501	<b>Romanesque and Gothic Art.</b> 3 hours. Directed individual research into the architecture, sculpture, and illuminated manuscripts of Western Europe during the eleventh to early sixteenth centuries.	550	<b>Printmaking.</b> 3, 6, or 9 hours. Independent study utilizing traditional methods of printmaking. Encourages the exploration of new directions in personal expression.		<b>The following 400-level courses may be taken for graduate credit:</b>
511	<b>Investigations in Art Education.</b> 3 hours. Independent study in art curriculum and methodology, with emphasis on the literature, selected art history, and studio areas.	560	<b>Painting.</b> 3, 6, 9 hours. Advanced aspects of painting, with emphasis on experimentation in different styles and on individualized approaches.	401G	<b>Art in the Italian Renaissance.</b>
512	<b>Investigations in Art Education.</b> 3 hours Independent study in art curriculum and methodology (including art history and studio). Emphasizes the use of surveys, observations, and experimental techniques.	570	<b>Sculpture.</b> 3, 6, 9 hours. Independent study and experimentation in sculpture.	402G	<b>American Architecture.</b>
520	<b>Ceramic Art.</b> 3, 6, 9 hours. Advanced levels of clay forming techniques and clay glaze composition. Research in various phases of the ceramic process.	580	<b>Weaving.</b> 3, 6, 9 hours. Individual study of weaving utilizing traditional and experimental techniques: the production of works that are highly individualistic and are of exhibition quality.	405G	<b>Art Theory and Criticism.</b> 3 hours. Major theories of art, both historical and contemporary, and various approaches to qualitative judgements about individual works of art.
		591	<b>Investigations in Art History.</b> 3 hours. Topics and approaches for special areas of interest. Emphasis on the traditional periods of art history.	420G, 421G, 422G	<b>Ceramics.</b>
		599	<b>Thesis Research and Writing.</b> 6 hours.	440G	<b>Drawing.</b>
				450G, 451G, 452G	<b>Printmaking.</b>
				460G, 461G, 462G	<b>Painting.</b>
				470G, 471G, 472G	<b>Sculpture.</b>
				480G, 481G, 482G	<b>Weaving.</b>
				490G, 491G	<b>Special problems.</b>

## DEPARTMENT OF COMMUNICATION AND BROADCASTING

IVAN WILSON CENTER  
ROOM 130 (502) 745-3296

Randall Capps, Head

### Graduate Faculty

**Professors:** C. Anderson, R. Capps, C. Kell, R. O'Connor, D. Wicklander, L. Winn

**Associate Professor:** L. Caillouet

**Assistant Professors:** C. Garmon, J. Hoover, K. Payne

**Degrees Offered:** Master of Arts in Communication, Master of Arts in Education (Communication major or minor)

### Master of Arts in Communication

This degree prepares students for a variety of careers and pursuits in which advanced communication study is helpful. It is especially useful as preparation for college level teaching, further graduate study, management and personnel relations, group communication situations including decision making, and other areas requiring specialized communication skills.

The program provides maximum flexibility. Courses are organized to allow concentration in one of the following

### Graduate Courses in Communication

**500 Speech Communication Internship.** 3 hours.

Practical experience in speech communication situations. On-site guidance from a coordinator within the organization. This course may be repeated once.

**503 Foundations of Communication Concepts.** 3 hours.

Major concepts and issues which characterize the discipline.

**510 Strategies for Teaching Speech Communication.** 1 hour.

Designed to improve the teaching performance of S Com graduate assistants in teaching the basic public speaking courses.

**521 Evaluation of Mass Communication.** 3 hours.

Criteria for determining the social responsibilities 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.

525

**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.

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.

542

**Practicum in Communication Consulting.** 3 hours.

Practical off-campus experience in the actual development, implementation, and evaluation of communication programs in organizations.

543

**Contemporary Methods of Rhetorical Criticism.** 3 hours.

Application of contemporary methods of analyzing and evaluating rhetorical discourse.

544

**Persuasive Communication.** 3 hours.

How persuasion works across the dimensions of the communication process: one-to-one, small group, public, and mass communication.

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 interpretative reading, duet acting and story telling.

549

**Rhetorical Theory and Criticism.** 3 hours.

Development of classical tradition in rhetorical theory, practice, criticism, and pedagogy, from pre-Aristotelian writings to twentieth-century British and American theorists.

areas within the department: communication theory and research, organizational communication, rhetoric and public address, and speech education. With advisor permission, students may take a maximum of 6 hours in a related area outside the department.

A weekend program is offered which provides students with the opportunity to complete the MA in two years by taking advantage of courses scheduled on Friday evenings and Saturdays. The focus of the weekend course offerings is Organizational Communication.

In the early stages of the graduate program, students should meet with their advisor and decide whether to follow Plan A (thesis) or Plan B (non-thesis).

The MA in Communication requires 30 hours plus 3 hours of research tool. Specific departmental requirements include the following:

S Com 503-Foundations of Communication Concepts

(required of all graduate students)

S Com 400G-Qualitative Methods and/or

S Com 440G-Quantitative Methods

(Communication majors must select either 400G or 440G as the research tool; the remaining course may be included in the graduate major.)

### Master of Arts in Education (Communication major or minor)

Since this program provides graduate coursework in communication 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 requires a minimum of 12 or a maximum of 15 hours in the appropriate area. The remaining hours will be taken in professional education.

560	<b>Seminar in Organizational Communication.</b> 3 hours. Topical studies in the field of organizational communication. Includes employee communication and conflict management, among others. May be repeated with a different topic.	576	<b>Small Group Communication.</b> 3 hours. The dynamics of communication and interaction occurring in small groups.	578	<b>Seminar in Interpersonal Communication.</b> 3 hours. Examination of professional literature and basic research in the interpersonal communication.	595	<b>Independent Study in Communication.</b> 3 hours. Permits students to conduct individualized communication research in an area of their interest.	599	<b>Thesis Research and Writing.</b> 6 hours.	599c	<b>Maintaining Matriculation.</b> 1 to 6 hours.	443G	<b>Persuasion in Contemporary Society.</b> 3 hours. Contemporary persuasion in areas such as business, law, politics, religion, and social movements; types of persuasion ranging from speeches to entertainment forms such as music and cinema.	447G	<b>Studies in Public Communication.</b> 3 hours. Effective examples of public communication in American history.	449G	<b>Speech Development.</b> 3 hours. Speech as a teaching tool. Minor problems in voice control, articulation, and pronunciation.
<b>The following 400-level courses in Communication may be taken for graduate credit:</b>																	
400G	<b>Qualitative Methods of Communication Research.</b> 3 hours. Research methodologies in communication.	460G	<b>Interviewing.</b> 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.														
401G	<b>History of Broadcasting in America.</b> 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.	461G	<b>Organizational Communication.</b> 3 hours. Theoretical examination of rhetorical principles operant in modern organizational communication systems.														
404G	<b>Professional Media Roles.</b> 3 hours. Comprehensive and practical transition to life roles as media consumers, practitioners, and/or researchers. Examination of domestic, commercial, and academic applications of media study. Methods for career placement and advancement.	463G	<b>Intercultural Communication.</b> 3 hours. Dimensions of communication theory that apply across cultural boundaries, including anthropological and linguistic perspectives.														
405G	<b>Phonetics.</b> 3 hours. Speech sounds, their production, and acoustic properties.	474G	<b>Gender Differences in Communication.</b> 3 hours. Communication behaviors related to gender including understanding gender related differences reflected in interpersonal, organizational, and mass communication situations.														
440G	<b>Quantitative Methods of Communi-</b>	495G	<b>Independent Study in Communication.</b> 3 hours.														

## DEPARTMENT OF ENGLISH

**CHERRY HALL**  
**ROOM 135 (502) 745-3043**

**Joseph R. Millichap, Head**

### Graduate Faculty

**Professors:** N. Davis, R. Eckard, J. Flynn, W. Fridy, J. Glaser, J. Heldman, W. Hellstrom, L. Little, G. McCelvey, D. McMahon, W. McMahon, J. Millichap, C. Mosby, K. Pelz, J. Spurlock, F. Steele, J. Survant, R. Ward

**Associate Professors:** J. Hagaman,

**Assistant Professors:** P. Carr, L. Crouther, L. Dill

**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

The master's program prepares students for teaching in public schools or junior colleges, for continuing graduate work toward a doctorate in English, or for many other careers that involve strong communication skills. The MA in English can be taken with concentration in literature, writing, or teaching English as a second language (TESL). Admission requirements for a concentration in literature include 27 hours of undergraduate English with a GPA of 3.0 or above and a satisfactory score on the General Test of the GRE. Admission requirements for the writing and TESL concentrations include a minimum of four undergraduate English courses beyond general education requirements, at least two being upper-level literature courses, with the GPA and GRE score indicated above.

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.

### Graduate Courses in English

**503 Syntactic Theory.** 3 hours.  
 The development of syntactic theory, with emphasis on various new approaches.

553

**508 TESL Field Experience.** 3 hours.  
 Prerequisites: Eng 469 and one linguistics course.  
 Observation and teaching under professional supervision.

560

**520 Introduction to Graduate Studies.**  
 3 hours.  
 Basic bibliography and bibliographical

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

**Restoration and Eighteenth Century Drama.** 3 hours.  
 Emphasis on a number of representative plays. Evaluation of influences, movements, and productions.

**Literary Criticism II.**  
 3 hours.

Critical theory and practice of significant literary critics of the Western world from the time 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 coop advisor and of the English departmental advisory committee. Work with an appropriate 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.

All programs include a research tool requirement, which the student may satisfy 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 designated primarily for secondary teachers who wish to acquire a strong academic background in their teaching field. Requirements include a minimum of 18 hours in English, 12 hours in education, and a final examination on courses and related materials specified in the Reading List for 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 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 a minimum of 18 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 hours for the area major will be selected from allied language arts. Twelve hours must be taken in professional education. The oral examination for this program covers the student's graduate courses.

571	<b>British Masterpieces in the Classroom.</b> 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.	593	<b>Poe, Hawthorne, and Melville.</b> 3 hours. Selected works, cultural backgrounds, and contributions of these writers.	411G	<b>Directed Writing.</b> 3 hours. A tutorial for students to work under the supervision of a writing instructor. Students choose the form of writing they wish to pursue.
572	<b>American Masterpieces in the Classroom.</b> 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.	594	<b>Contemporary Fiction.</b> 3 hours. Selected major figures and their works. Consideration of movements, influences, developments since 1945.	412G	<b>History and Theory of Rhetoric.</b> 3 hours. Survey of classical, traditional, and contemporary rhetoric as applied to written discourse. Emphasis on invention, arrangement, and style. Readings include the work of classical and modern rhetoricians. Consideration of rhetorically oriented methods of teaching written discourse.
579	<b>Studies in Victorian Literature.</b> 3 hours. Selected Victorian works or writers or special topics of significance in Victorian literature.	596	<b>Seminar in American Writers.</b> 3 hours. Varies according to assigned instructor and student's needs. Usually covers group of writers, or one major writer.	455G	<b>American Drama.</b> 3 hours. See Department of Theatre and Dance.
581	<b>Readings In Old English.</b> 3 hours. Introduction to Anglo-Saxon vocabulary, grammar, and literary devices. Readings in the original and in translation.	598	<b>Problems in English.</b> 2 or 3 hours. Supervised student research on literary or linguistic problems.	456G	<b>Elizabethan Drama.</b> 3 hours. See Department of Theatre and Dance.
582	<b>Middle English Literature.</b> 3 hours. Non-Chaucerian English literature of the Middle English period. Language of the period reviewed.	599	<b>Thesis Research and Writing.</b> 6 hours.	458G	<b>Modern British Novel.</b> 3 hours. Techniques and rationale in representative works of major British novelists from the era of Joseph Conrad to the present. Intellectual climate of period.
583	<b>Shakespeare II.</b> 3 hours. Selected comedies and histories. Individual research in literary criticism.	599c	<b>Maintaining Matriculation.</b> 1 to 6 hours.	459G	<b>Modern Drama.</b> 3 hours. See Department of Theatre and Dance.
585	<b>Milton.</b> 3 hours. The writings of John Milton, with emphasis on his poetic works.	401G	<b>Advanced Composition.</b> 3 hours. Study and practice in various forms of writing and rhetorical principles.	460G	<b>Literary Criticism I.</b> 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.
586	<b>Seminar in British Writers.</b> 3 hours. Content varies. Selected works or writers. Majors may repeat course once with different topic.	402G	<b>Editing and Publishing.</b> 3 hours. Editing collections of student works in several types including experience in computer text editing; lectures by visiting publishers and editors of books, journals, and newspapers.	469G	<b>Introduction to Teaching English as a Second Language.</b> 3 hours. Theories, methods, and materials for teaching English as a second or foreign language.
587	<b>Wordsworth and Keats.</b> 3 hours. The major works of these two writers and an evaluation of their contributions to the Romantic Movement.	404G	<b>History of the English Language.</b> 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 effects	470G	<b>Methods and Materials Teaching English as a Second Language.</b> 3 hours. Prerequisites: Eng 469/469G and one linguistics course. Develops skills, procedures, and strategies for teaching and utilizing commercial materials for the teaching of English as a second language. Cross-listed with Sec. Ed. 484G.
588	<b>Modern British Poetry.</b> 3 hours. Detailed study of the works of major twentieth century British poets.	405G	<b>Phonetics.</b> 3 hours. Speech sounds, their production and acoustic properties. Cross-listed with Ex Ed 405G.	481G	<b>Chaucer.</b> 3 hours. Representative works of Chaucer; backgrounds; outside readings and reports.
589	<b>Cooperative Education in English II.</b> 3 hours. Prerequisites: A minimum of 9 graduate hours in English with a GPA of 3.25 or above; approval of the departmental coop advisor and of the English graduate advisory committee. Appropriate supervised work with a co-operating organization.	406G	<b>Advanced Writing Workshop.</b> 3 hours. Workshop setting for students with major writing projects such as an essay collection, short stories, poems, a novel, play, or script.	482G	<b>Shakespeare I.</b> 3 hours. Selected major Shakespearean plays read and studied in the light of the Elizabethan period as representing typical dramatic writing and production.
591	<b>Emerson, Thoreau, and Whitman.</b> 3 hours. Selected works, cultural backgrounds, and contributions of these writers.	407G	<b>Descriptive Linguistics.</b> 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.	483G	<b>The English Renaissance.</b> 3 hours. Non-dramatic literature of the Renaissance, with emphasis on Spenser.
592	<b>The Age of Twain and James.</b> 3 hours. Realism and naturalism in American literature. Emphasis on Twain, James, and their contemporaries.	408G	<b>Psycholinguistics and Sociolinguistics.</b> 3 hours. Prerequisite: Introductory linguistics course. How sociology and psychology contribute to the study of linguistics. Emphasis on social and regional dialects, first and second language acquisition, and speech perception and production.	484G	<b>The Romantic Movement.</b> 3 hours. Background and phases of romanticism; representative exponents of the Romantic Movement.
		410G	<b>Theories of Rhetoric and Composition.</b> 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.	485G	<b>The Seventeenth Century.</b> 3 hours. Seventeenth century literature, forms, and developments.

486G	<b>The Eighteenth Century.</b> 3 hours. Eighteenth century literature, forms, and developments.	490G	Technique and history of the novel. Several representative novels studied.	494G	American poets from Poe to the present.
488G	<b>Literature of the Victorian Age.</b> 3 hours. Selected works by major poets, essayists, and novelists of Victorian England as a reflection of the culture of the age.	493G	<b>The American Novel.</b> 3 hours. American novel from Cooper to present. History, development, and technique. Representative novels studied.	494G	<b>Kentucky Literature.</b> 3 hours. Survey of literary people and places in Kentucky, including detailed study of several works of Kentucky writers.
489G	<b>The English Novel.</b> 3 hours.	493G	<b>Major American Poets.</b> 3 hours. The major poems, the styles and the poetic intent of the most important	495G	<b>Southern Literature.</b> 3 hours. Covers major, minor, and "regional" writers of the South.

## DEPARTMENT OF GOVERNMENT

GRISE HALL  
ROOM 300 (502) 745-4558

**John D. Parker, Head**

**Professors:** G. Bluhm, C. Chelf, R. Cravens, E. Kearney, G. Masannat, J. Parker, J. Petersen, J. Uveges

**Assistant Professor:** C. Hamilton

**Degrees Offered:** Master of Public Administration

### Master of Public Administration

The Master of Public Administration is an interdisciplinary program designed to provide knowledge and skills appropriate for professional career development in governmental and/or quasi-governmental organizations. It is designed to (1) prepare college graduates (pre-service) for leadership roles in public service and (2) provide opportunities for practicing public managers and community leaders (in-service) for additional training and career development.

The degree requires 33-36 semester hours of coursework including completion of 15-18 hours of core courses. Also required are 3-9 hours of related interdisciplinary courses.

### Graduate Courses in Government

501	<b>Methods of Political Inquiry.</b> 3 hours. Analysis and description of the logic and procedures necessary for valid political inquiry.	530	<b>Seminar in Political Theory.</b> 3 hours. Analysis of topics in political theory.		health and welfare, poverty, education, and urban affairs.
510	<b>Problems in National Government.</b> 3 hours. Research, reports, and discussion of selected aspects of national government.	538	<b>Ethics and Bureaucracy.</b> 3 hours. Examines the ethical side of public decision making and the values or ends the American political system is designed to promote and protect.	546	<b>Public Policy Evaluation.</b> 3 hours. Seminar examining the various approaches and techniques for evaluating public programs.
511	<b>Seminar in State Government.</b> 3 hours. Selected problems at all levels of U.S. Government.	540	<b>Seminar in Public Sector Organizations.</b> 3 hours. Analysis of behavior and problems of public organizations in democratic environments. Links societal values to administrative structure and behavior.	549	<b>Special Problems in Public Administration.</b> 3 hours. Seminar approach to contemporary problems in public organizations reflecting political/managerial developments; topics reflect both student and professional needs.
520	<b>Seminar in Public Law.</b> 3 hours. Exposition, discussion, and analysis of concepts and issues in jurisprudence, and/or in administrative, constitutional, and international law.	545	<b>Seminar in Public Policy Analysis.</b> 3 hours. Theoretical approaches to the analysis of public policy, policy-making, and policy implementation and to such topics as	550	<b>Seminar in International Relations.</b> 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.

597 **Professional Seminar in Public Administration.** 3 hours.  
Principles and techniques in the practice of public administration. Case studies and contact with field professionals will be emphasized.

598 **Internship in Public Administration.** 3 hours.  
Work experience in a public sector or non-profit agency combined with faculty direction.

**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 major factors and issues in the state's political development within the context of the national governmental setting and the

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 the 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 **Political Issues in American History.** 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.

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.

442G **Government Financial Administration.** 3 hours.  
Budgeting and accounting processes of local government. Also includes state and federal grant and revenue-sharing programs.

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.

461G **Government and Politics of the U.S.S.R.** 3 hours.  
The rise, sources and nature of communist ideology. Soviet political institutions, and function of the Communist Party of the Soviet Union.

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.

463G **Politics of the Developing Nations.** 3 hours.  
Political culture, processes and problems of nations independent since World War II.

465G **Middle Eastern Governments and Politics.** 3 hours.  
Governmental and political processes of the Middle East, with emphasis on Iran, Israel, Turkey, and Egypt.

466G **Far Eastern Governments and Politics.** 3 hours.  
Political traditions, structures and processes of major governments in the Far East.

## DEPARTMENT OF HISTORY

**CHERRY HALL**  
**ROOM 200 (502) 745-3842**

**Richard Troutman, Head**

### Graduate Faculty

**Professors:** J. Bennett, C. Bussey, C. Crowe-Carracco, D. Harrington, L. Harrison, R. Haynes, C. Jackson, D. Lee, M. Lucas, F. Murphy, R. Salisbury, R. Stone, J. Thacker, F. Thompson, R. Troutman, R. Weigel

**Assistant Professors:** R. Antony, H. Phillips

**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.

### 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 presents 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. At least half of the 24 hours of coursework must be taken at the 500-600 level. Reading proficiency in a modern foreign language must be demonstrated.

Plan B requires 36 hours, including at least 21 hours at the 500-600 level. Both European Historiography 435G and American Historiography 455G must be included in 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 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	<b>Cultural and Social Aspects of American Life.</b> 3 hours. Designed for graduate students who have undergraduate majors in the field of elementary education.	527	<b>Social and Intellectual History of Europe: Nineteenth Century.</b> 3 hours.	606	<b>Seminar in European History.</b> 3 hours. Graduate Seminar in such diverse areas as the Middle Ages, Renaissance, Reformation, and Nazi Germany. May be repeated once with a different topic.
501	<b>World History for Secondary Teachers.</b> 3 hours. Emphasis on bibliography, documents, historical interpretations and materials useful for secondary teachers of history.	554	<b>Discovery and Interpretation of Local History.</b> 3 hours. Materials, methodology and techniques employed in local history research and its integration with other fields.	619	<b>Seminar in United States Diplomatic Relations.</b> 3 hours. May be repeated once with a different topic.
502	<b>United States History for Secondary Teachers.</b> 3 hours. Emphasis on bibliography, documents, historical interpretations and materials for secondary teachers of history.	569	<b>Cooperative Education in History.</b> 3 hours. Practical experience in a supervised work situation with a cooperating library, museum, archives, or other appropriate historical organization.	622	<b>Seminar in Western United States History.</b> 3 hours. May be repeated once with a different topic.
515	<b>Nineteenth Century Britain.</b> 3 hours.	590	<b>Advanced Individual Study.</b> 3 hours. Prerequisite: 3.0 average in at least 9 hours at the graduate level. A research problem or intensive readings directed by a faculty member. May be repeated once with a different topic.	630	<b>Seminar in United States History.</b> 3 hours. Graduate seminar in such diverse areas as Colonial America, the Federalist era, the Slavery Controversy, the U.S. since 1945. May be repeated once with a different topic.
521	<b>United States 1900-1945.</b> 3 hours.	599	<b>Thesis Research and Writing.</b> 6 hours.	631	<b>Seminar in Kentucky History.</b> 3 hours.
525	<b>Social and Intellectual History of the U.S.: Nineteenth Century.</b> 3 hours.	599c	<b>Maintaining Matriculation.</b> 1 to 6 hours.	640	<b>Seminar in College Teaching.</b> 3 hours.
526	<b>Social and Intellectual History of the U.S.: Twentieth Century.</b> 3 hours.	605	<b>Seminar in Ancient History.</b> 3 hours. May be repeated once with a different		

Course organization, lecture preparation, professional development, ethics, testing procedures, and library development.

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

419G **Tudor-Stuart England.** 3 hours.

422G **The French Revolution and Napoleonic Era.** 3 hours.

425G **Modern Germany.** 3 hours.

426G **Hitler and Nazi Germany.** 3 hours. In-depth study of German history between 1933 and 1945.

428G **England Since 1914.** 3 hours.

435G **European Historiography.** 3 hours.

440G **Colonial History of the United States.** 3 hours.

441G **The Formative Period, 1776-1815.** 3 hours.

442G **The Jacksonian Era.** 1815-1850. 3 hours.

443G **Civil War and Reconstruction, 1850-1877.** 3 hours.

444G **The United States, 1870-1900.** 3 hours.

449G **Korea and Vietnam.** 3 hours. In-depth study of both Korean and Vietnam conflicts.

450G **Diplomatic History of the United States to 1898.** 3 hours.

451G **Diplomatic History of the United States Since 1898.** 3 hours.

452G **Urban History.** 3 hours.

453G **Women in American History.** 3 hours. Analysis of the role played by American women in the social, political, and economic phases of U.S. history.

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.

460G **Traditional East Asia.** 3 hours. Survey of the political, socioeconomic, intellectual, and cultural history of China and Japan to 1600.

464G **Latin America and the United States.** 3 hours.

465G **The Mexican Republic.** 3 hours.

471G **Modern China.** 3 hours. Detailed study of rise of modern China since the 17th century.

472G **Modern Japan.** 3 hours. Analysis of modern Japanese history since 1600 with special emphasis on transformation from feudal to modern state.

479G **Topics in the Third World.** 3 hours. Intensive study of a selected Third World topic.

490G **Topics in History I.** 3 hours. Detailed study of selected topics in history.

491G **Topics in History II.** 3 hours.

**DEPARTMENT OF JOURNALISM**

**GORDON WILSON HALL**  
**ROOM 300 (502) 745-4143**

**Jo-Ann Huff Albers, 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.

**DEPARTMENT OF MODERN LANGUAGES AND INTERCULTURAL STUDIES**

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

**C.P. Brown, Head**

**Graduate Faculty**

**Professors:** J. Babcock, T. Baldwin, C. Brown, J. Miller, L. Montell

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

427G **School Journalism.** 3 hours. A course designed to meet the state requirements for secondary certification in journalism. Explores resources available to journalism teachers and the responsibility of publication advisors. (On demand)

481G **Problems in Mass Communications.** 3 hours. Individualized research, management, production, etc., in the fields of mass communication activities. May be repeated once for credit.

**Associate Professors:** C. Collins, R. Martin, R. Padilla

**Assistant Professors:** N. Love, E. Pennington, M. Williams

**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.

\*Masters 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.

### 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 19th 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.

425G **Nineteenth Century French Literature.** 3 hours.  
Prerequisite: Fr 326 or permission of instructor.  
Romantic, Realistic, and Naturalistic trends of the 19th 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 20th century French theatre.

427G **Twentieth Century French Novel.** 3 hours.  
Prerequisite: Fr 326 or permission of instructor.  
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 German Composition and Conversation.** 3 hours.

Those persons majoring in French, German, or Spanish must take 18 hours in the major language. Those minoring in French, German, or Spanish may take a minimum of 12 and 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.

Intensive practice in written and spoken German, enabling the student to write letters, reports, essays, and descriptions and to discuss literary, cultural, and political topics.

435G **German Literature of the 19th and 20th Centuries.** 3 hours.  
Major German, Austrian, and Swiss writers of the 19th and 20th centuries, 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 18th and early 19th 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.** 3 hours.  
Prerequisite: Spn 374.  
Peninsular Spanish literature from the beginnings 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 and folklife involves examination and analysis of traditional expressive culture in all its forms--including oral 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, ethno-musicology, 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 option is intended to provide advanced knowledge of the theoretical and methodological aspects of folklore and folklife. 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. FS 569 is strongly recommended.

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

### Plan B (non-thesis)

This option is designed to provide an academically sound alternative for those students who would be better served by the diversity of additional coursework rather than thesis writing, particularly those not planning to pursue doctoral study. This option also permits individually planned programs (with advisor) stressing those combinations of course-related research, "hands on" skills,

and writing experiences that will best prepare individuals for their personal and professional goals.

Plan B requires 36 hours of coursework plus the research tool. Specific requirements are FS 577 and 578. Additionally, FS 569 is strongly recommended. The remaining hours will be carefully selected with advisor approval.

The research tool requirements are the same as for Plans A and C. The student must also pass a comprehensive written examination based on coursework and a program reading list.

### Plan C (Historic Preservation)

The historic preservation option while firmly grounded in the folk studies curriculum, is designed to introduce students to the multiple facets of historic preservation and cultural conservation theory and practice. Coursework in folk studies will be complemented by coursework in several cooperating departments including geography and history.

Internships with a variety of local, regional and national institutions will also provide opportunity for practical work experience in historic preservation.

Plan C requires a minimum of 36 hours plus the research tool. Specific requirements are the 9-hour historic preservation core which consists of FS 477G, His 554, and Geog 434G; fifteen additional hours of folk studies including FS 577, 578, 470G, and two graduate level folk studies electives; three hours of history to be selected from Hist 525, 526, or 452G; and nine hours of folk studies or related electives to be selected with advisor approval. FS 569 is strongly recommended.

The research tool requirements and the written examination are the same as for Plans A and B.

## Master of Arts in Education (Folk Studies minor)

This program is designed to enrich teaching content in the public schools in the arts, humanities, and social sciences, and to broaden the teacher's general education background. Admission requirements are the same as for the Master of Arts in Folk Studies. The folk studies minor requires a minimum of 12 hours in folklore, including Folk Studies 577 and 578 and two folklore electives. One course from a related discipline may be substituted for one folklore elective.

## Graduate Courses in Folk Studies

500	<b>American Folklore.</b> 3 hours. An overview of American folklore fields: myths, legends, folktales, folksongs, proverbs, beliefs, customs, folk speech, material culture, etc.	569	on its historical development, methodologies, and theories.	572	<b>Applied Folklore.</b> 3 hours. Folklore concepts and methods as application-oriented research and public sector concerns with emphasis on social, medical, governmental, and educational programs. Includes relationships with other applied disciplines.
566	<b>Oral History Materials and Methods.</b> 3 hours. Philosophy of oral history, kinds of materials included, methodology, legal and ethical considerations, uses and planning local oral history projects.	570	<b>Appalachian Folklore and Folklife.</b> 3 hours. Folklife and culture of the Upland South, with emphasis on verbal and material traditions.	573	<b>Seminar in Interpretation of Myth.</b> 3 hours. Principal contemporary modes of research in interpretation of myth.
567	<b>Folklife Studies.</b> 3 hours. An overview of folklore studies focusing	571	<b>Folk Narrative.</b> 3 hours. A survey of narrative genres of folklore and applicable scholarship.	574	<b>Urban Folklore.</b> 3 hours. Folkloric and cultural aspects of urban America, with emphasis on the

traditions of ethnic, immigrant, occupational, and subcultural segments.	and apparent needs of the students. May be repeated once.	Techniques. 3 hours. Essential aspects of museums and of preservation, i.e., collecting, preserving, researching, exhibiting, and interpreting material culture.
<b>576 American Traditional Song.</b> 3 hours. Interdisciplinary examination of American folksong and folkmusic including ethnic, regional, and occupational manifestations. Emphasis on both conventional genres and cultural contexts.	<b>589FS Internship in Folk Studies.</b> 3 hours. Supervised work situation with co-operating business, industry, social or governmental agency, emphasizing application of advanced knowledge and skills in folk studies.	<b>477G Folk Arts and Technology.</b> 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 antecedent sources and parallels.
<b>577 Folklore Theories and Techniques.</b> 3 hours. Folklore scholarship, its historical development, and its principal bibliographical materials and their uses.	<b>589HP Internship in Historic Preservation.</b> 3 hours. Supervised work situation with a co-operating business, industry, social or governmental agency, emphasizing application of advanced knowledge and skills in historic preservation	<b>478G Folklore in Literature.</b> 3 hours. Readings in world literature from the Bible to the modern novel; aspects of folklore reflected there; the effects of unwritten literature on origins and development of written literature.
<b>578 Folklore Fieldwork and Oral History.</b> 3 hours. Examination of and practical experience in theories and techniques of folklore fieldwork and oral history.	<b>599 Thesis Research and Writing.</b> 6 hours.	<b>480G Women's Folklife.</b> 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.
<b>579 Directed Study and Research in Folklore.</b> 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.	<b>462G Folk Medicine.</b> 3 hours. Historical circumstances, associations, and logic of traditional non-scientific medical practices. Cross-listed with Health and Safety.	<b>Afro-American Studies</b>
<b>580 Folklore Conversation and Communication.</b> 3 hours. 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.	<b>464G Vernacular Architecture</b> 3 hours. The forms, functions, and styles of buildings constructed according to custom from local materials to meet individual and cultural preferences.	<b>480G Directed Independent Study in Afro-American Topics.</b> 1 to 3 hours. Selected topics dealing with the life and times of the people of African ancestry in Africa and the Americas.
<b>585 Topics in Folklore.</b> 3 hours. Topics in current interest in the field. Content varies according to the instructor	<b>470G Museum Procedures and Preservation</b>	<b>490G Afro-American Seminar.</b> 3 hours. Topics dealing with the African or Afro-American past and present.

## DEPARTMENT OF MUSIC

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

**Charles Smith, Head**

### Graduate Faculty

**Professors:** K. Campbell, V. Hale, S. Kersenbaum, D. Livingston, C. Smith

**Associate Professors:** D. Kelsey, R. Swanson, E. Volkman

**Assistant Professors:** K. Davis, M. Kallstrom, C. Norton, R. Morris, C. Reardon, D. Wilkinson

**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, 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 pedagogy; 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. Twelve hours should be selected from the following education courses: Ed 500 or Music 511; Sec Ed 580; Sec Ed 544 or Sec Ed 535; Psy 510 or Psy 511.

The music specialization component must include twelve hours, with at least six hours in music education courses - 513, 514, 415G, 416G, 515, or 509. The remaining six hours in the specialization component may be selected in part from these music education courses, but must include at least one course from another area: the music theory and literature area or the applied study, ensemble performance, and conducting area. The courses include Music 501, 509, 518, 530, a maximum of two hours in 453G and 454G, and a maximum of one hour in Ensembles 440G, 441G, 443G, 444G, 445G, 449G, or 471G.

For the elective individualization component, students will select six hours from the following list, or from courses not selected in the specialization component, or from professional education courses approved by the education advisor in consultation with the music advisor: Ensembles 440G, 441G, 443G, 444G, 445G, 449G, or 471G -- 1-2 hours; Applied Music 450G, 451G, 453G, 454G -- 1-2 hours; 405G, 407G, 416G, 500, 402G, 403G, 512, 414G or 406G.

The minor requires a minimum of 12 or a maximum of 15 hours. The remaining hours will be taken in professional education courses. 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	<b>Seminar in Theory.</b> 3 hours.	<b>School Music.</b> 3 hours. Current trends in educational thought and implications of administration, instruction and evaluation of public school instrumental music.	Prerequisite: Counterpoint I.
501	<b>Analytical Techniques.</b> 3 hours. Harmonic and contrapuntal analysis in various styles.	<b>Advanced Conducting.</b> 3 hours. Course designed to sharpen and enhance skills as an ensemble conductor. Emphasis on specific conducting problems, rehearsal techniques and score study.	405G <b>Choral Arranging.</b> 2 hours.
509	<b>General Music in the Elementary and Middle Schools.</b> 3 hours. Includes advanced study of contemporary elementary music education trends, methodologies, instructional techniques, and materials. Expands contemporary instructional methods.	<b>Music Literature.</b> 3 hours. Investigation of a specialized area not covered in other music literature courses.	406G <b>Composition.</b> 3 hours. Prerequisite: Consent of the instructor.
510	<b>The Teaching of Applied Music.</b> 3 hours. Investigation of pedagogical problems in a specific performance area of music.	<b>Directed Individual Study.</b> 3 hours. Supervised private research culminating in a scholarly paper.	407G <b>Orchestration and Band Arranging.</b> 3 hours. Prerequisite: Theory IV.
511	<b>Investigations of Music Education.</b> 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.	<b>Applied Music Major.</b> 4 hours. (MM in Performance only)	414G <b>Choral Materials.</b> 2 hours.
512	<b>Music Education Workshop.</b> 1 to 3 hours. A variable topic workshop that may be repeated for a total of six hours.	<b>Graduate Recital.</b> 2 hours. Required of candidates for the Master of Music Degree.	415G <b>Choral Methods.</b> 2 hours.
513	<b>Directed Individual Study.</b> 3 hours. Research projects in music education.	<b>Thesis Research and Writing.</b> 6 hours.	416G <b>Instrumental Methods.</b> 3 hours.
514	<b>General Music in the Secondary Schools.</b> 3 hours. Training the music teacher to provide orientation experiences for junior and senior high school non-performers.	<b>Maintaining Matriculation.</b> 1 to 6 hours.	417G <b>Marching Band Techniques.</b> 2 hours.
515	<b>Administration and Supervision of Public</b>	<b>402G Counterpoint I.</b> 2 to 3 hours. Prerequisite: Theory 201 Sixteenth Century polyphony.	430G <b>Music Literature.</b> 2 to 3 hours. A survey embracing music of several periods, styles, and forms.
		<b>403G Counterpoint II.</b> 2 to 3 hours.	432G <b>Research Techniques in Music.</b> 3 hours.
			440G <b>Choral Union.</b> 1 hour.
			441G <b>Choir.</b> 1 hour.
			443G <b>Band.</b> 1 hour.
			444G <b>Orchestra.</b> 1 hour.
			445G <b>Chamber Singers.</b> 1 hour.
			449G <b>Chamber Music.</b> 1 hour.
			450G, 451G <b>Applied Music Secondary.</b> 1 hour.
			453G, 454G <b>Applied Music Principal.</b> 2 hours.
			471G <b>Jazz Ensemble.</b> 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.

## DEPARTMENT OF PHILOSOPHY AND RELIGION

**CHERRY HALL**  
**ROOM 300 (502) 745-3136**

**Alan B. Anderson, Head**

### Graduate Faculty

**Professors:** A. Anderson, M. Howe, W. Lane, L. Mayhew, R. Nash, E. Schoen, D. Tuck, R. Veenker, A. Vos

**Associate Professors:** J. Garrett, J. Long, M. Seidler, J. Trafton

**Degree Offered:** Master of Arts in Humanities (an interdepartmental program).

### Master of Arts in Humanities

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 hours 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, 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 the 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 religious studies while permitting a broad background in supporting disciplines. Additional options are under discussion and may be implemented 1989-90.

### 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:

- 401G **Readings in Philosophy.** 3 hours.
- 402G **Theory of Knowledge.** 3 hours.  
Selected topics such as rationalism, empiricism, pragmatism, idealism, skepticism, explanation, theories and evidence, justification, perception, reference, and meaning.
- 403G **Metaphysics.** 3 hours.  
Selective exploration of central problems in metaphysics, such as the nature of persons, the status of universals or the structure of space and time.
- 405G **Existentialism.** 3 hours.
- 420G **Philosophy of History.** 3 hours.
- 425G **Twentieth Century British Philosophy.** 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 with different topics.
- 510 **Seminar in Religious Literature.** 3 hours.  
Selected literature from one major religious tradition. May be repeated with different topics.
- 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 topics.
- 530 **Seminar in Religious Thought.** 3 hours.  
Selected topics or thinkers from one major religious tradition. May be repeated with different topics.

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

400G	<b>Contemporary Religious Thought.</b> 3 hours.	431G	<b>Christianity from 1517 to the Present.</b> 3 hours.	465G	<b>The Buddhist Religious Tradition.</b> 3 hours.
401G	<b>Religious Studies Seminar.</b> 3 hours.		Development of Christian thought and institutions from the Reformation to the present.	475G	<b>Gods and Goddesses of India.</b> 3 hours.
405G	<b>Current Issues in New Testament Studies.</b> 3 hours.	440G	<b>Judaism.</b> 3 hours.		Major beliefs, practices, symbols, and social institutions, developed by Indian theists around selected gods and goddesses of Hindu religious traditions.
415G	<b>Old Testament Themes.</b> 3 hours.	445G	<b>Religious Traditions of Israel.</b> 3 hours.		
430G	<b>Christianity to 1517.</b> 3 hours.	460G	<b>The Religion of Primitive Peoples.</b> 3 hours.	499G	<b>Research in Religious Studies.</b> 3 hours.
	Development of Christian thought and institutions Prior to the Reformation.				

## DEPARTMENT OF SOCIOLOGY, ANTHROPOLOGY, AND SOCIAL WORK

**GRISE HALL 101 (502) 745-3759**

**Aaron Podolefsky, Head**

**Graduate Faculty**

**Professors:** F. Baali, E. Bohlander, T. Dunn, J. Faine, A. Goetting, J. Grimm, K. Kalab, J. Krenzin, A. Podolefsky, J. Schock, P. Wozniak

**Associate Professors:** S. Tuthill

**Assistant Professors:** S. Groce

**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, 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 department 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 512 - Sociological Theory  
 Soc 513 - Methods of Social Research  
 Soc 514 - Sociological Statistics  
 Soc 520 - Technical Writing in Sociology

Under the thesis option, Plan A, thirty hours are required -- 24 hours of coursework and 6 hours of thesis credit. Fifteen hours of 500-level coursework must be taken within the department. Up to fifteen 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 the applied option, Plan B, thirty hours are required. Fifteen hours of the 500-level coursework must be taken within the department of sociology, including Soc. 515, Advanced Data Analysis. Up to fifteen 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.

There are two options under Plan B:

- (1) 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; or
- (2) An applied research paper and an oral defense which will serve as a final examination for Plan B.

Beyond the 30 hour requirement under Plan A or 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	<b>Advanced General Sociology.</b> 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.	541	<b>Demography.</b> 3 hours. Prerequisite: Six hours of Soc or permission of instructor. A review of the demographic processes such as mortality, fertility, and migration, with emphasis on measurements, methods, and analytical techniques.	542	<b>Community.</b> 3 hours. Prerequisite: Six hours of Soc or consent of instructor. Ecological and social concepts of the community and its structure and function.	551	<b>Sociology of the Family.</b> 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	<b>Sociology of Economic Life.</b> 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	<b>Society, Personality, and Behavior.</b> 3 hours. 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	<b>Formal Organizations.</b> 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	<b>Topical Seminar in Sociology.</b> 3 hours. Significant topics, issues, or developments in the discipline. May be repeated with a different topic.	597	<b>Research Practicum.</b> 3-6 hours. Prerequisites: Twenty-four graduate credit hours earned and research tool successfully completed. Application of research skills in the community setting.	598	<b>Internship in Sociology.</b> 3-6 hours. Prerequisites: Twenty-four graduate credit hours earned and research tool successfully completed. Practical experience in a supervised work situation with a cooperating agency.	599	<b>Thesis Research and Writing.</b> 6 hours.	599c	<b>Maintaining Matriculation.</b> 1 to 6 hours.	601	<b>Scientists.</b> 3 hours. Prerequisite: Soc 300 and 302 or permission of instructor. Use of micro and/or mainframe computers for statistical analysis of social science data. Emphasis is placed on programming skills in the Statistical Package for the Social Science (SPSS), micro or mainframe operating systems, and the use of software developed for data entry, analysis, and presentation.
512	<b>Sociological Theory.</b> 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.	543	<b>Community Structure and Function.</b> 3 hours. Prerequisite: Six hours of Soc or consent of instructor. Ecological and social concepts of the community and its structure and function.	553	<b>Sociology of the Family.</b> 3 hours. Prerequisite: Six hours of Soc or consent of instructor. Analysis of the family institution; the impact of modern culture on the family.	554	<b>Sociology of Economic Life.</b> 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.	563	<b>Society, Personality, and Behavior.</b> 3 hours. 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.	564	<b>Formal Organizations.</b> 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.	572	<b>Topical Seminar in Sociology.</b> 3 hours. Significant topics, issues, or developments in the discipline. May be repeated with a different topic.	598	<b>Internship in Sociology.</b> 3-6 hours. Prerequisites: Twenty-four graduate credit hours earned and research tool successfully completed. Practical experience in a supervised work situation with a cooperating agency.	599	<b>Thesis Research and Writing.</b> 6 hours.	599c	<b>Maintaining Matriculation.</b> 1 to 6 hours.	602	<b>Evaluation Research Techniques.</b> 3 hours. Prerequisite: Soc 300 and 302 or their equivalent and permission of instructor. Procedures and problems in conducting research to evaluate programmatic effects.				
513	<b>Methods of Social Research.</b> 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.	544	<b>Community Structure and Function.</b> 3 hours. Prerequisite: Six hours of Soc or consent of instructor. Ecological and social concepts of the community and its structure and function.	555	<b>Sociology of the Family.</b> 3 hours. Prerequisite: Six hours of Soc or consent of instructor. Analysis of the family institution; the impact of modern culture on the family.	556	<b>Sociology of Economic Life.</b> 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.	565	<b>Society, Personality, and Behavior.</b> 3 hours. 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.	566	<b>Formal Organizations.</b> 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.	573	<b>Topical Seminar in Sociology.</b> 3 hours. Significant topics, issues, or developments in the discipline. May be repeated with a different topic.	599	<b>Thesis Research and Writing.</b> 6 hours.	599c	<b>Maintaining Matriculation.</b> 1 to 6 hours.	603	<b>Survey Applications.</b> 3 hours. Prerequisite: Soc 300 and 302 or their equivalent and permission of instructor. Student involvement in the design, conduct, analysis, and dissemination of an actual social survey research project.						
514	<b>Advanced Social Statistics.</b> 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.	545	<b>Community Structure and Function.</b> 3 hours. Prerequisite: Six hours of Soc or consent of instructor. Ecological and social concepts of the community and its structure and function.	557	<b>Socialization: Changes Through Life.</b> 3 hours. Theories and research techniques in socialization; findings that deal with changes over the life cycle.	558	<b>Political Sociology.</b> 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.	567	<b>Socialization: Changes Through Life.</b> 3 hours. Theories and research techniques in socialization; findings that deal with changes over the life cycle.	568	<b>Political Sociology.</b> 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.	574	<b>Sociology of Work and Leisure.</b> 3 hours. Prerequisite: Graduate standing. Major types of work, workers, and work settings in the U.S. and the patterns of leisure activity associated with them.	599	<b>Punishment and Prisons.</b> 3 hours. Prerequisite: Soc 330 or consent of instructor Development of punishment and correctional programs, with emphasis on sociological considerations. Prison field trips required.	599c	<b>Maintaining Matriculation.</b> 1 to 6 hours.	604	<b>Sociology of Criminal Law.</b> 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.						
515	<b>Advanced Data Analysis.</b> 3 hours. Prerequisites: Soc 400G, 513 & 514 or equivalent. Multivariate forms of statistical analyses commonly applied to quantitative sociological research data. Covers applications and extensions of the general linear model, including dummy variable regression, analysis of variance and covariance, etc.	546	<b>Community Structure and Function.</b> 3 hours. Prerequisite: Six hours of Soc or consent of instructor. Ecological and social concepts of the community and its structure and function.	559	<b>Topical Seminar in Sociology.</b> 3 hours. Significant topics, issues, or developments in the discipline. May be repeated with a different topic.	569	<b>Research Practicum.</b> 3-6 hours. Prerequisites: Twenty-four graduate credit hours earned and research tool successfully completed. Application of research skills in the community setting.	575	<b>Socialization: Changes Through Life.</b> 3 hours. Theories and research techniques in socialization; findings that deal with changes over the life cycle.	576	<b>Political Sociology.</b> 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.	585	<b>Sociology of Work and Leisure.</b> 3 hours. Prerequisite: Graduate standing. Major types of work, workers, and work settings in the U.S. and the patterns of leisure activity associated with them.	599	<b>Punishment and Prisons.</b> 3 hours. Prerequisite: Soc 330 or consent of instructor Development of punishment and correctional programs, with emphasis on sociological considerations. Prison field trips required.	599c	<b>Maintaining Matriculation.</b> 1 to 6 hours.	605	<b>Sociology of Criminal Law.</b> 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.						
520	<b>Professional and Technical Writing.</b> 3 hours. Designed to assist students in writing theses, proposals, papers for publication, and some of the documents required of the sociologist in the industrial world.	547	<b>Community Structure and Function.</b> 3 hours. Prerequisite: Six hours of Soc or consent of instructor. Ecological and social concepts of the community and its structure and function.	560	<b>Topical Seminar in Sociology.</b> 3 hours. Significant topics, issues, or developments in the discipline. May be repeated with a different topic.	570	<b>Research Practicum.</b> 3-6 hours. Prerequisites: Twenty-four graduate credit hours earned and research tool successfully completed. Application of research skills in the community setting.	577	<b>Socialization: Changes Through Life.</b> 3 hours. Theories and research techniques in socialization; findings that deal with changes over the life cycle.	578	<b>Political Sociology.</b> 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.	586	<b>Sociology of Work and Leisure.</b> 3 hours. Prerequisite: Graduate standing. Major types of work, workers, and work settings in the U.S. and the patterns of leisure activity associated with them.	599	<b>Punishment and Prisons.</b> 3 hours. Prerequisite: Soc 330 or consent of instructor Development of punishment and correctional programs, with emphasis on sociological considerations. Prison field trips required.	599c	<b>Maintaining Matriculation.</b> 1 to 6 hours.	606	<b>Sociology of Criminal Law.</b> 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.						
531	<b>Deviant Behavior.</b> 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.	548	<b>Community Structure and Function.</b> 3 hours. Prerequisite: Six hours of Soc or consent of instructor. Ecological and social concepts of the community and its structure and function.	561	<b>Topical Seminar in Sociology.</b> 3 hours. Significant topics, issues, or developments in the discipline. May be repeated with a different topic.	571	<b>Research Practicum.</b> 3-6 hours. Prerequisites: Twenty-four graduate credit hours earned and research tool successfully completed. Application of research skills in the community setting.	579	<b>Socialization: Changes Through Life.</b> 3 hours. Theories and research techniques in socialization; findings that deal with changes over the life cycle.	580	<b>Political Sociology.</b> 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.	587	<b>Sociology of Work and Leisure.</b> 3 hours. Prerequisite: Graduate standing. Major types of work, workers, and work settings in the U.S. and the patterns of leisure activity associated with them.	599	<b>Punishment and Prisons.</b> 3 hours. Prerequisite: Soc 330 or consent of instructor Development of punishment and correctional programs, with emphasis on sociological considerations. Prison field trips required.	599c	<b>Maintaining Matriculation.</b> 1 to 6 hours.	607	<b>Sociology of Criminal Law.</b> 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.						
532	<b>Criminology.</b> 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.	549	<b>Community Structure and Function.</b> 3 hours. Prerequisite: Six hours of Soc or consent of instructor. Ecological and social concepts of the community and its structure and function.	562	<b>Topical Seminar in Sociology.</b> 3 hours. Significant topics, issues, or developments in the discipline. May be repeated with a different topic.	572	<b>Research Practicum.</b> 3-6 hours. Prerequisites: Twenty-four graduate credit hours earned and research tool successfully completed. Application of research skills in the community setting.	581	<b>Socialization: Changes Through Life.</b> 3 hours. Theories and research techniques in socialization; findings that deal with changes over the life cycle.	582	<b>Political Sociology.</b> 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.	588	<b>Sociology of Work and Leisure.</b> 3 hours. Prerequisite: Graduate standing. Major types of work, workers, and work settings in the U.S. and the patterns of leisure activity associated with them.	599	<b>Punishment and Prisons.</b> 3 hours. Prerequisite: Soc 330 or consent of instructor Development of punishment and correctional programs, with emphasis on sociological considerations. Prison field trips required.	599c	<b>Maintaining Matriculation.</b> 1 to 6 hours.	608	<b>Sociology of Criminal Law.</b> 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.						
533	<b>Community Corrections.</b> 3 hours. Prerequisite: Six hours of Soc or permission of instructor. Socio-legal analysis of community based treatment of criminal offenders including forms of diversion, probation, and parole; techniques of sentencing, the supervision of clients, and a	550	<b>Community Structure and Function.</b> 3 hours. Prerequisite: Six hours of Soc or consent of instructor. Ecological and social concepts of the community and its structure and function.	563	<b>Topical Seminar in Sociology.</b> 3 hours. Significant topics, issues, or developments in the discipline. May be repeated with a different topic.	573	<b>Research Practicum.</b> 3-6 hours. Prerequisites: Twenty-four graduate credit hours earned and research tool successfully completed. Application of research skills in the community setting.	583	<b>Socialization: Changes Through Life.</b> 3 hours. Theories and research techniques in socialization; findings that deal with changes over the life cycle.	584	<b>Political Sociology.</b> 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.	590	<b>Sociology of Work and Leisure.</b> 3 hours. Prerequisite: Graduate standing. Major types of work, workers, and work settings in the U.S. and the patterns of leisure activity associated with them.	599	<b>Punishment and Prisons.</b> 3 hours. Prerequisite: Soc 330 or consent of instructor Development of punishment and correctional programs, with emphasis on sociological considerations. Prison field trips required.	599c	<b>Maintaining Matriculation.</b> 1 to 6 hours.	609	<b>Sociology of Criminal Law.</b> 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.						
534	<b>Statistical Software for Social</b>	551	<b>Community Structure and Function.</b> 3 hours. Prerequisite: Six hours of Soc or consent of instructor. Ecological and social concepts of the community and its structure and function.	564	<b>Topical Seminar in Sociology.</b> 3 hours. Significant topics, issues, or developments in the discipline. May be repeated with a different topic.	574	<b>Research Practicum.</b> 3-6 hours. Prerequisites: Twenty-four graduate credit hours earned and research tool successfully completed. Application of research skills in the community setting.	584	<b>Socialization: Changes Through Life.</b> 3 hours. Theories and research techniques in socialization; findings that deal with changes over the life cycle.	585	<b>Political Sociology.</b> 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.	592	<b>Sociology of Work and Leisure.</b> 3 hours. Prerequisite: Graduate standing. Major types of work, workers, and work settings in the U.S. and the patterns of leisure activity associated with them.	599	<b>Punishment and Prisons.</b> 3 hours. Prerequisite: Soc 330 or consent of instructor Development of punishment and correctional programs, with emphasis on sociological considerations. Prison field trips required.	599c	<b>Maintaining Matriculation.</b> 1 to 6 hours.	610	<b>Sociology of Criminal Law.</b> 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.						

**These 400-level courses may be taken for graduate credit:**

**400G Statistical Software for Social**

program evaluation.	determine the place of work in the lives of their members.	495G <b>Directed Study.</b> 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.
<b>440G Medical Sociology.</b> 3 hours. Comprehensive examination of the social organization of the health care industry in the U.S. Focus on origins and development of medicine, social epidemiology, the social construction of illness and illness behavior, the professionalization of medicine and patterns of social interaction between health providers and patients.	<b>452G Social Change.</b> 3 hours. Prerequisite: Nine hours or 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.	
<b>450G Occupations and Professions.</b> 3 hours. Prerequisite: 346 or consent of instructor. Occupation specialization and the nature of occupational organization. Examines a variety of occupations and professions to	<b>460G Urban Sociology.</b> 3 hours. Prerequisite: Six hours of Soc or consent of instructor. The impact of city life on social actions, social relationships, the social institutions. Emphasis on the rise and significance of cities in American life.	<b>402G Qualitative Methods.</b> 3 hours. A "hands on" practicum in field research providing students with working knowledge of the strategies, techniques, and ethical considerations of collecting and using research data.

## DEPARTMENT OF THEATRE AND DANCE

**IVAN WILSON CENTER**  
**ROOM 114 (502) 745-5845**

**William E. Leonard, Head**

### Graduate Faculty

**Professors:** D. Combs, J. Kesler, W. Leonard  
**Associate Professor:** L. Ruff  
**Assistant Professor:** S. Probus

### Graduate Courses in Theatre

<b>550 Seminar in Theatre.</b> 3 hours. Provides theatre experience through research and application. Individual investigation of interpretative, technical, or promotional problems.
<b>553 Restoration and Eighteenth Century Drama.</b> 3 hours. Representative plays, evaluation of influences, movements, and productions. Reading and individual study.
<b>583 Shakespeare II.</b> 3 hours. (See English 583)

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

<b>422G Lighting Design.</b> 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.
<b>423G Theatre Management.</b> 3 hours. Principles of management applied to fields of theatre operation, production preparation, and performance.

**Degree Offered:** Master of Arts in Education (Theatre minor)

The department also offers courses used as electives in other programs such as the M.A. in English and the M.A. in Communications.

<b>424G Special Problems in Technical Theatre.</b> 3 hours. Advanced study in the areas of scenery, costume, lighting, and sound.
<b>431G Musical Theatre.</b> 3 hours. Development of the musical theatre; the style and form of its music, dance and drama; and its impact on the modern theatre.
<b>441G Costume Design.</b> 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.
<b>442G Historic Decor for Stage.</b> 3 hours. Historic costumes of the major periods of theatrical production. Covers the costumed actor's problems with manners and movements.
<b>445G Research in Theatre and Dance.</b> 3 hours. Independent study directed by theatre / dance faculty advisor.
<b>455G American Drama.</b> 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.
<b>456G Elizabethan Drama.</b> 3 hours. Intensive study of the immediate predecessors and contemporaries of Shakespeare.
<b>459G Modern Drama.</b> 3 hours. Dramatic literature since Ibsen, with emphasis on evolving developments and trends in world theatre.
<b>461G Theatre Practicum.</b> 3 hours. Reading of plays and dramatic materials; staging methods; script selection for production, script with analysis of director's research; individual interpretation and production plans; final production.
<b>482G Shakespeare I.</b> 3 hours. See Department of English.
<b>491G Puppet Theatre.</b> 3 hours. Puppets, puppets and marionettes with emphasis on history, construction, operation, and performance.
<b>499G Studies in British Theatre.</b> 3 hours. Includes a tour to England and viewing of representative plays, visits to historical and cultural sites.



FINLEY C. CRISE  
HALL

## **COLLEGE OF BUSINESS ADMINISTRATION**

**J. Michael Brown, Dean**

### **DEPARTMENTS**

**Accounting**

**Administrative Office Systems**

**Economics**

**Finance and Management Information Systems**

**Management and Marketing**

**Degrees Offered:** Master of Arts in Economics,  
Master of Arts in Education (Business Education  
Major or Minor\*; Economics Major or Minor)

**\*A Master of Arts in Education (Major or Minor in Business Education)**  
is offered in cooperation with the College of Education and Behavioral  
Sciences.

## COLLEGE OF BUSINESS ADMINISTRATION

**J. Michael Brown, Dean**

### Accounting (Acct)

500	<b>Financial Accounting.</b> 3 hours. Concepts and principles governing financial and managerial accounting. Emphasis on both external financial reporting and use of accounting information by management.	and objectives; implementation, documentation, and control.
550	<b>Advanced Accounting Theory.</b> 3 hours. Prerequisites: Acct 401, 402, or their equivalents. A study of the development of financial accounting theory, including a critical appraisal of trends in its application.	565 <b>Auditing Standards and Application.</b> 3 hours. Prerequisite: Acct 450 or its equivalent. Philosophy and development of auditing; review of auditing pronouncements of the AICPA; requirements of the SEC and GAO; current auditing issues.
555	<b>Federal Taxation of Estates, Gifts, and Trusts.</b> 3 hours. Prerequisites: Acct 430, 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.	575 <b>Administration and Supervision in Business Education.</b> 3 hours. Roles and functions of administration and supervision at all educational levels. Includes vocational education laws and their relationship to business education.
560	<b>Managerial Accounting.</b> 3 hours. Prerequisite: Acct 500 or its equivalent. Control function in corporate enterprise; control concepts and techniques; control measures for production and marketing decisions.	<b>The following 400-level course may be taken for graduate credit:</b>
561	<b>Management Accounting Practices.</b> 3 hours. Prerequisite: Acct 310 or its equivalent. Application of managerial accounting concepts of planning, control, and decision making.	431G <b>Federal Tax Accounting II.</b> 3 hours.
562	<b>Accounting Information Systems.</b> 3 hours. Prerequisites: Acct 310, and INFS 241 or their equivalents. General system concepts; systems studies	<b>Administrative Office Systems</b>
535		<b>BE</b>
540W		535 <b>Survey of Distribution.</b> 3 hours. Business activities involved in moving goods from production to consumption; emphasis on the role of marketing in the American economy.
544		540W <b>Consumer Financial Problems.</b> 3 hours. Basic elements of money management and the relationship of these elements to family units and corporate citizenship.
545		544 <b>Current Problems in Business Education.</b> 3 hours. Current problems and significant research. Also offered as independent study or workshop.
		545 <b>Principles of Business Education.</b> 3 hours. Principles, practices, problems, and philosophy includes standards, gu-
		545 <b>Associate Professors:</b> M. Borland, W. Davis, R. Howsen, Y. Kim, C. Roberts, T. Wisley
		461G <b>Business Research Report Writing.</b> 3 hours.
		463G <b>Information Resource Management.</b> 3 hours.
		471G <b>Office Internship.</b> 3 hours.
		472G <b>Office Systems Planning and Implementation.</b> 3 hours.
		485G <b>Office Employee Training.</b> 3 hours.
		490G <b>Managing Integrated Office Systems.</b> 3 hours.

### DEPARTMENT OF ECONOMICS

**GRISE HALL**  
**ROOM 431 (502) 745-2249**

**John C. Wassom, Head**

### Graduate Faculty

**Professors:** K. Cann, S. Lile, R. Pulsinelli, J. Wassom

**Associate Professors:** M. Borland, W. Davis, R. Howsen, Y. Kim, C. Roberts, T. Wisley

**Assistant Professors:** B. Goff, T. Noser, D. Myers

**Degrees Offered:** Master of Arts in Economics, Master of Arts in Education (Economics major or minor)

## Master of Arts in Economics

The program of study is designed to prepare students for careers in teaching, business, and government. All students are required to complete a three course core (advanced microeconomics, advanced macroeconomics, and a quantitative methods course). The remainder of the program is flexible -- up to 12 hours may be taken, with approval, outside the department.

In addition to meeting Graduate College requirement, the applicant is expected to have completed six hours of intermediate economic theory and three hours of elementary statistics or their equivalent and possess an appropriate background in mathematics. Deficiencies in undergraduate preparation may be removed by successful completion of the appropriate requirements during the first semester/s/ after admission.

The program consists of 24 hours with a thesis or 30

hours without a thesis. No more than 15 hours of 400-level courses, excluding Economics 464G and 465G, may be taken. A final written or oral examination, covering major areas of study and/or the thesis, is required.

The program includes the following study areas: Pre-Ph.D., (Business) Managerial Economics, Financial Economics, Public Policy, and International Economics.

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

This program provides graduate work in economics within the program designed for the public school teacher. The student following it must meet all requirements for standard high school certification. The major requires 18 to 21 hours in economics. The minor requires 12 to 15 hours in economics. The remaining hours of coursework will be taken in professional education.

## Economics

### Graduate Courses in Economics

504. <b>Survey of Economic Theory.</b> 3 hours. Theoretical principles of micro and macroeconomic analysis. Covers price, output decisions, resource allocation in a market economy, aggregate income, price level, etc.	585	<b>Applied Macroeconomic Theory.</b> 3 hours. Prerequisites: Econ 504 and 506 or equivalents. Its application to the business environment. Emphasis on the dynamic character of the American economy and applied techniques of business, conditions forecasting.	599	<b>Thesis Research and Writing.</b> 6 hours.
505W <b>Economics for Teachers.</b> 3 hours. Basic concepts and topics dealing with the functioning of a market oriented economic system and the U.S. economy.	586	<b>Monetary Theory.</b> 3 hours. Classical, neoclassical Keynesian, and modern quantity theory of money and monetary policy.	599c	<b>Maintaining Matriculation.</b> 1 to 6 hours.
506 <b>Statistical Research Methods.</b> 3 hours. Basic concepts of statistics applicable to managerial analysis of variance, regression analysis, time series, and forecasting.	587	<b>Land Economics.</b> 3 hours. Topics in land use, values, and natural resources.	410G	<b>Seminar in Economics.</b> 1 to 3 hours.
580 <b>Applied Microeconomic Theory.</b> 3 hours. Prerequisites: Econ 504 and 506 or equivalents. Advanced theory and its application in the business environment. Emphasis on behavior of and decision making within the firm, demand resource allocation, and decision-making techniques.	588	<b>Public Sector Economics.</b> 3 hours. Problems in government finance, budgeting, fiscal relations, and revenue sharing. Primarily for Master of Public Service students.	420G	<b>Public Finance.</b> 3 hours.
581 <b>Survey of Public Financial Theory.</b> 3 hours. Theoretical aspects of government finance and its influence on public and private decision making.	589	<b>Seminar in Economic Theory.</b> 3 hours. Intensive study of selected topics in theory.	440G	<b>American Industry: Structure, Performance, and Policy.</b> 3 hours.
582 <b>Seminar in Economic History.</b> 3 hours. Topics and research in American and European economic history.	590	<b>Economic Development.</b> 3 hours. Development of problems of the less progressive countries.	450G	<b>Central Banking Theory and Monetary Policy.</b> 3 hours.
583 <b>Advanced Microeconomic Theory.</b> 3 hours. Topics in theory of consumer behavior, prices, markets, production, distribution, and welfare.	591	<b>Advanced International Economics.</b> 3 hours. Trade theory, tariffs, balance of payments, and capital transfers.	464G	<b>Introduction to Mathematical Economics.</b> 3 hours.
584 <b>Advanced Macroeconomic Theory.</b> 3 hours. Topics in the theory of consumption, saving, investment, interest, money, and employment.	592	<b>Economic Research and Report Writing.</b> 3 hours. Techniques of data collection, research, and writing on selected topics.	465G	<b>Regression and Econometric Analysis.</b> 3 hours.
	594	<b>Forecasting.</b> 3 hours. Prerequisites: Math 116, Econ 504, 506, or equivalent. Numerical characteristics of U.S. economy and other economic units; methods of forecasting changes; application and evaluation of different techniques.	470G	<b>Economic Growth and Development.</b> 3 hours.
	598	<b>Directed Studies.</b> 3 hours. Selected topics in economics.	475G	<b>Urban and Regional Economics.</b> 3 hours.
			490G	<b>Economic Thought to 1870.</b> 3 hours.
			491G	<b>Economic Thought Since 1870.</b> 3 hours.
			509	<b>Managerial Finance.</b> 3 hours. Nature and scope; topics in financial structure and the cost of capital.
			530	<b>Advanced Managerial Finance.</b> 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.

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

410G <b>Seminar in Economics.</b> 1 to 3 hours.
420G <b>Public Finance.</b> 3 hours.
440G <b>American Industry: Structure, Performance, and Policy.</b> 3 hours.
450G <b>Central Banking Theory and Monetary Policy.</b> 3 hours.
464G <b>Introduction to Mathematical Economics.</b> 3 hours.
465G <b>Regression and Econometric Analysis.</b> 3 hours.
470G <b>Economic Growth and Development.</b> 3 hours.
475G <b>Urban and Regional Economics.</b> 3 hours.
490G <b>Economic Thought to 1870.</b> 3 hours.
491G <b>Economic Thought Since 1870.</b> 3 hours.

## Finance and Management Information Systems

509 <b>Managerial Finance.</b> 3 hours. Nature and scope; topics in financial structure and the cost of capital.
530 <b>Advanced Managerial Finance.</b> 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.

## Computer Information Systems (CIS)

516	<b>Business Computer Applications.</b> 3 hours. Introduction to electronic information processing. Overview of systems analysis and design, management information systems; introduction to computer programming languages and micro-computer applications.	570	ment of behavior in organizations.
518	<b>Management Science.</b> 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.	573	<b>Business, Government, and Law.</b> 3 hours. Development, implementation, and impact of major public policies toward business. Includes antitrust, consumer protection, conservation and environmental control, etc.
519	<b>Production Management.</b> 3 hours. Prerequisites: INFS 516, QBA 518, and Econ 506 or equivalents. Operations management planning and control in manufacturing and non-manufacturing systems.	575	<b>International Business.</b> 3 hours. Prerequisites: Mkt 520, and Fin 530 or equivalents. Institutions, organizations, and procedures of international business. Emphasizes problems and decision-making techniques.
535	<b>Advanced Management Science.</b> 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.	578	<b>Organization Theory.</b> 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.
		579	<b>Administrative Policy and Strategy.</b> 3 hours. Prerequisites: At least 21 hours earned 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.
			<b>Directed Study in Management.</b> 1 to 3 hours. Supervised independent study of a topic or problem culminating in a scholarly paper or problem-solving report.

### The following 400-level course may be taken for graduate credit:

415G	<b>Managing the Quality Process.</b> 3 hours. Prerequisite: QBA 314 or permission of instructor. Review basic statistics, control charts, process capability, conformance, power and OC curves, tolerance intervals, implementation strategies, Deming philosophy.

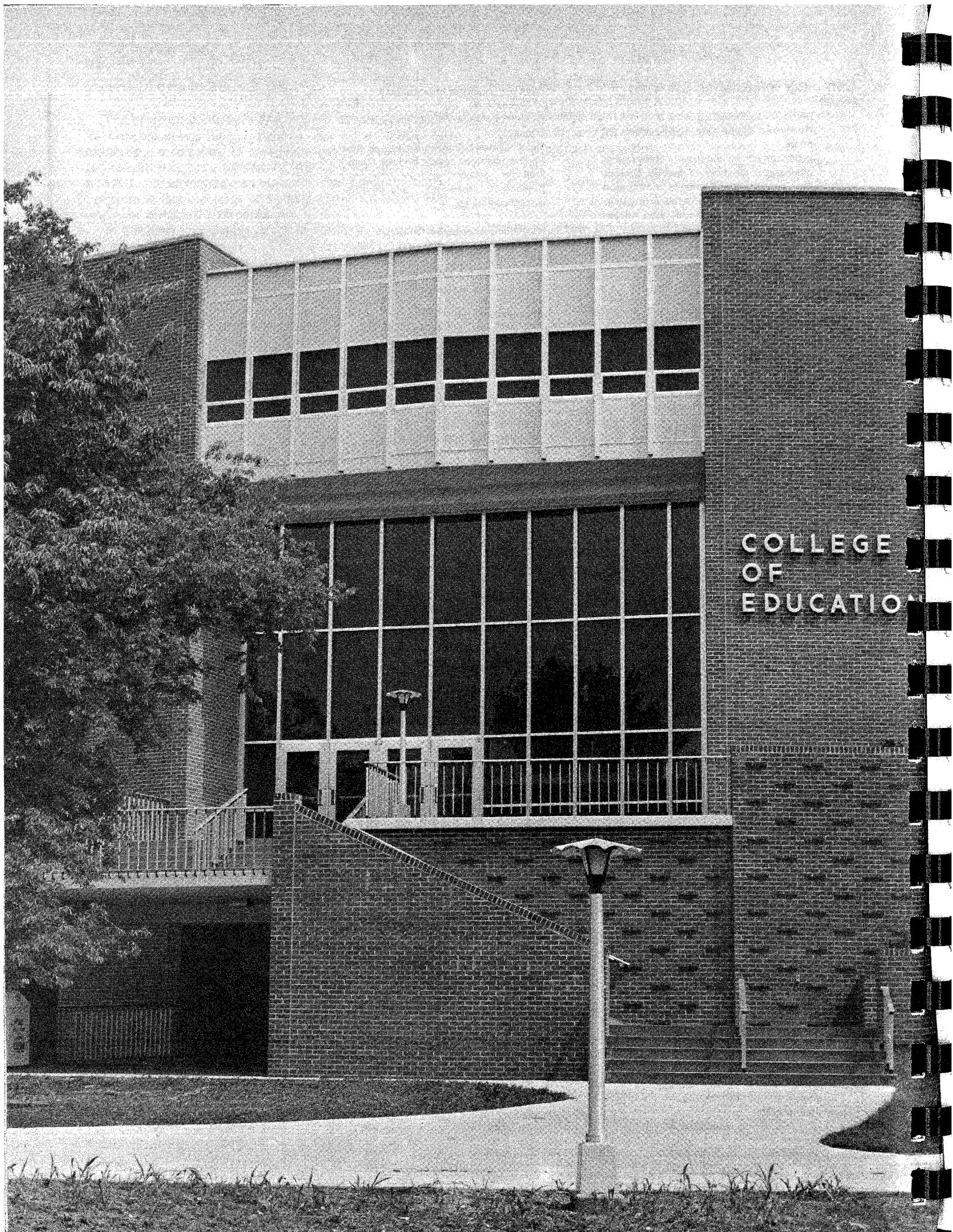
## Management and Marketing

### Management (Mgt)

513	<b>Management Dynamics.</b> 3 hours. An introduction to organizational analysis and to the understanding and manage-

### Marketing (Mkt)

511	<b>Managerial Marketing.</b> 3 hours. Concepts, terms, and functions important to marketing, consumer behavior, product planning, pricing, and public policy implications of marketing strategies.
520	<b>Advanced Marketing.</b> 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.
529	<b>Directed Study in Marketing.</b> 1 to 3 hours. Supervised independent study of a topic or problem culminating in a scholarly paper or problem-solving report.



COLLEGE  
OF  
EDUCATION

## COLLEGE OF EDUCATION AND BEHAVIORAL SCIENCES

**J. T. Sandefur, Dean**

### DEPARTMENTS

**Administrative Office Systems**

**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, Home Economics, 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**

## ADMINISTRATIVE OFFICE SYSTEMS

**GRISE HALL**  
**ROOM 500 (502) 745-3097**

**Charles Ray, Head**

**Graduate Faculty**

**Professors:** P. Keck, C. Ray, J. Stallard  
**Associate Professor:** J. Murphy,  
**Assistant Professor:** C. Hunt

**Degree Offered:** Master of Arts in Education (Business Education 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 for a major. A minimum of 12 hours is required for a minor. The remaining courses will be taken in professional education, since teacher certification requirements must be met. BE545 is required for both the major and the minor. Other guidelines are available from the department.

**Courses and course descriptions are listed in the College of Business Administration, page 37.**

## DEPARTMENT OF EDUCATIONAL LEADERSHIP

**TATE C. PAGE HALL**  
**ROOM 426 (502) 745-4997**

**Stephen B. Schnacke, Head**

**Graduate Faculty**

**Professors:** R. Adams, S. Brumfield, E. Burkeen, D. Cline, P. Constans, N. Deeb, E. Harryman, C. Kreisler, T. Meredith, D. Mitchell, F. Robinson, J. Sandefur, S. Schnacke, R. Schrader, D. Shannon, V. Sheeley, W. Traugott, T. Updike, J. Wilder

**Associate Professors:** W. Ashley, J. Flanigan, G. Gallegos, R. Greer, R. Meredith, F. Stickle

**Assistant Professors:** S. House, M. Richardson, D. Smith, C. Trumbo

**Degrees Offered:** Master of Arts in Education (General, School Counseling, Student Personnel Services in Higher Education, Community/Agency Counseling, 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, general school administration (superintendent), and administration/supervision of vocational education.

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 that give professional educators a greater understanding of their roles and the function of

educational institutions in society.

Some counseling courses may require learning which focuses on self-understanding or growth.

**Master of Arts in Education (General)**

This degree program is provided for individuals whose professional interest suggests an emphasis in the behavioral sciences and/or education; flexibility of the program allows students to meet expected career needs.

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 three 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.

Within the MAE (General), programs may be planned to include an emphasis in adult development and gerontology. Those requirements are as follows:

Core 6 hours:

Ed Fnd 500 (required) and one additional course to be selected from Ed Fnd 576/577, or Psy 510/511.

Education 9-15 hours:

Cns Ed 669  
 Ed 599 (Plan A, thesis) 6 hours or Cns Ed 662 (Plan B, non-thesis) 3-6 hours  
 Exc Ed 489G  
 Other appropriate education courses

Subject area 9-15 hours:

Psy 423G, HEFL 585, Rec 570, HL Sft 443G, 444G  
 Other appropriate subject area courses

## Master of Arts in Education (School Counseling)

This program option 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 six 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 Group Analysis
  - 556 Informational Services\*
  - 558 Counseling Theory and Practice
  - 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 option 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 Arts in Education (Community/Agency Counseling)

Applicants to this 36-hour program option must meet Graduate College requirements for admission. Course requirements are:

### A. Professional Core (6 hours):

Ed Fnd 500-Research Methods (required) and three hours from Ed Fnd 576, Psy 510, or 520, HEFL 491G, Psy 540, or 440G.

### B. Counseling Major (18-24 hours):

Required courses: Cns Ed 550, 558, 554, or 650, and 560  
Counseling electives: 6-12 hours selected to develop a specific concentration of counseling skills.

### C. Distributed Minor (6-12 hours):

Courses to be selected from related areas such as psychology, sociology, home economics and family living, 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 Sector Organization
- Psy 551 Social Psychology of Organizations
- Soc 562 Formal Organizations

### B. Socio-economic and political factor courses--6 hours:

- Geog 484G Planning: Theory and Application
- Govt 511 Seminar in State Government
- Govt 510 Problems in National Government
- 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 Adjustment
- 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	<b>Introduction to Counseling and Guidance.</b> 3 hours. Philosophy, organization, administration, and functions of counseling, guidance and personnel services.	561	<b>Introduction to Rehabilitation Counseling.</b> 3 hours. Basic counseling procedures appropriate to rehabilitation; history, settings and functions of the rehabilitation counselor.	658	<b>Seminar in Guidance and Counseling.</b> 3 hours. Presentation and discussion of research in guidance and counseling. Emphasizes theoretical and practical criticism of relevant studies in the field.
552	<b>Individual and Group Analysis.</b> 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.	562	<b>Counseling the Elderly.</b> 3 hours. Major problems individuals experience relative to or as a consequence of growing older. Basic communication and counseling skills needed to work with the elderly.	659	<b>Theories of Career Development and Vocational Choice.</b> 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.
554	<b>Group Guidance.</b> 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.	650	<b>Utilization of Community Resources in Guidance.</b> 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	<b>Organization and Administration of Guidance Services.</b> 3 hours. Effective guidance services in elementary and secondary schools. Basic principles and postulates underlying the justification of guidance services, staffing, facilities, budget, etc.
556	<b>Informational Services.</b> 3 hours. Sources, types and uses of educational and occupational information applicable to a program of developmental guidance and counseling.	654	<b>Research in Guidance and Counseling.</b> 1 to 3 hours. Research problems relating to the organization and administration of guidance programs. May be repeated once with a different topic.	661	<b>Seminar in Disability and Rehabilitation Counseling.</b> 3 hours. Psychological, physiological, and sociological impacts of congenital and traumatic disabilities, with emphasis on the rehabilitation counselor's role.
558	<b>Counseling Theory and Practice.</b> 3 hours. Major contemporary theories of counseling; implementation of the various methods and procedures followed in individual and group counseling; laboratory demonstration and participation.	655	<b>Educational and Intellectual Analysis of Children and Adults.</b> 3 hours. Administration and interpretation of standard mental and aptitude tests as tools of educational and occupational guidance.	662	<b>Internship.</b> 3 to 6 hours. Supervised experience in school, community, and agency settings.
559	<b>Techniques of Counseling.</b> 3 hours. Prerequisite: Cns Ed 558. Focus on the development of basic and advanced counseling skills and procedures. Refinement of the skills needed in providing counseling intervention.	656	<b>Seminar in Guidance Services in the Elementary School.</b> 3 hours. Determining, instituting, and maintaining guidance services that are congruent with the philosophy, curricula, and student patterns within the elementary school.	663	<b>Counseling the Exceptional Child and Parent.</b> 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.
560	<b>Counseling Practicum.</b> 3 hours. Prerequisite: 21 hours of the total program completed and completion of or concurrent enrollment in Cns Ed 558. Supervised experiences in a setting related to the area in which the individual plans to seek certification or employment.	657	<b>Seminar in Career Guidance and Occupational Adjustment.</b> 3 hours. Vocational guidance and occupational adjustment and its application at all educational levels as well as to business, industry, and government.	664	<b>Introduction to Student Personnel Services in Higher Education.</b> 3 hours. History, philosophy, and development of student services. Includes testing and counseling, financial aids, housing, admissions and records, placement, etc.
			<b>Readings in Contemporary Counseling.</b> 3 hours. Significant books and research articles related to counseling theory, theory application, and innovative techniques.		

665	<b>Advanced Appraisal of Children.</b> 3 hours. Prerequisites: Cns Ed 552 and 654, or equivalents. Continuation of Cns Ed 654 designed to increase administration and interpretation skills in the individual appraisal process.	ethical nature about people and deal with possible legal actions that result.	674	<b>Seminar in Student Personnel Services in Higher Education.</b> 3 hours. Issues, organization, and administration of and current practices in student personnel work.
666	<b>Legal and Ethical Issues in Counseling.</b> 3 hours. Course provides opportunities for mental health providers to make decisions of an	668 <b>Special Topics in Student Personnel Services in Higher Education.</b> 3 hours. May be repeated with a different topic for a maximum of 6 hours.	699	<b>Specialist Project.</b> 6 hours.
		669 <b>Special Topics in Counseling and Guidance.</b> 1 to 3 hours. May be repeated with a different topic for a maximum of 6 hours.	699c	<b>Maintaining Matriculation.</b> 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 Plant Administration, 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, and 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 of admission. The student's assigned committee reviews the academic program and directs the required research study or project.

Major emphases are available as follows: elementary school administration, middle 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 a joint program leading to the Ed. D. or Ph.D. in Education from the University of Kentucky. In addition, admission standards of the doctoral degree granting institution 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 recommendations to the appropriate university.

Each student admitted to the program is appointed an advisory committee, which represents both participating institutions. For further information, contact the Dean of the Graduate College, Western Kentucky University, or the Head of the Department of Educational Leadership.

## **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. That official then certifies to the State Department of Education that rank requirements have been met.

## **Rank I Programs**

The Department of Educational Leadership offers the following Rank I programs in accordance with the minimum regulations prescribed by the Kentucky State Board of Education:

1. Rank I--Standard Guidance (leading to standard certification in guidance)
2. 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 60 semester hours of 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 3.5 GPA 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.

### 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 60 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 15 semester hours in counseling coursework toward provisional guidance as a part of the Rank I program. An additional 15 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
- Education research - 3 hours
- Counseling electives, educational foundations, and/or other selected areas - 15 hours

### Rank I - School Administration

The Rank I in School Administration is a 60-hour planned program which includes endorsements in one or more of the following leadership positions: early elementary principal, middle school principal, secondary principal, director of pupil personnel, supervisor of instruction, and superintendent. For admission, a student must have the master's degree, a standard teaching certificate, three years of full-time appropriate teaching experience, a 3.2 GPA at the graduate level, and meet the minimum test score requirements on one of the following: 1200 GRE, state minimum NTE Core, or 50th percentile MAT. Application should be made to the Graduate College and to the department prior to earning more than three hours credit beyond the master's degree.

**STUDENTS SHOULD CONSULT THE DEPARTMENT FOR ADDITIONAL INFORMATION CONCERNING THE ADMISSION APPLICATION PROCESS.**

### Certification for School Principal Endorsement (Early Elementary, Middle School, or Secondary)

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

1. Completion of a minimum of 60 semester hours of

graduate credit including the master's degree. Within these total hours the student must complete the required professional courses as outlined in a planned program designed to provide the student with appropriate administrative competencies.

2. Satisfactory scores on the NTE Core Battery-Communication Skills and Test of General Knowledge, Administrative Specialty Test of the NTE and the Kentucky Administrative Specialty Test. These tests are required by the state and the minimum scores are established by the state.
3. Satisfactory completion of a one year internship as required by the state.
4. The student will be tested by the department after all Level I courses have been completed.

### 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. A planned program of 60 semester hours graduate credit including the master's degree has been completed.
2. Within these total hours the student must have at least 6 semester hours graduate credit in curriculum courses from two of the following: elementary, middle, or secondary.
3. Within these total hours one course each in the Exceptional Child, Reading Instruction, and Introduction to Counselor Education must be completed for a total of 9 semester hours graduate credit.
4. Within these total hours, 21 semester hours of graduate professional administration courses designed to prepare the student for supervisory competencies must be completed.

### 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 Level II preparation for administrative endorsement as principal or supervisor.
2. Two years full-time experience in an administrative position.
3. Completion of 36 semester hours graduate credit above the master's degree.

### 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, the standard middle school certificate, or the standard secondary school certificate.
2. Three years of successful teaching experience.
3. Completion of a minimum of 60 semester hours of graduate credit including the master's degree.

### **Certification for Administration and Supervision of Vocational Education Programs**

This program area is based on the prerequisites 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 from the following four categories. See advisor for individual course recommendations. **At least one course must be taken in each category:**

1. Organization and Administration of Vocational Education
2. Administration and Supervision of Educational Personnel
3. Program Planning, Research and Evaluation in Vocational Education
4. Vocational Guidance, Industrial Psychology, Human Relations

### **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 services, 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**

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.

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 accomplish the purposes of the school organization.

594 **Seminar on Leadership in Education.** 3 hours. Principles and practices of leadership relative to community resources in the development and operation of education programs.

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 applied to experimental and quasi-experimental research designs in education.

674 **Educational Technology for School Administrators.** 3 hours. Prerequisites: Sch Ad 585, and either 691, 692, or 693. In special cases, permission of instructor would be required. Acquainting the prospective administrator with new and innovative technologies applicable to educational settings.

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.

678 **School Plant Administration.** 3 hours. Prerequisite: Sch Ad 585. Educational needs and building planning; architect service; standards of

	construction; building surveys.		
679	<b>The Superintendency.</b> 3 hours. Function, role, and responsibilities of the school superintendent. Topics include politics and education; superintendent's relationships with the school board, central office staff, and with the state department of education; budget process; strategic management; curriculum management.	691	ministration; organization, problems, principles, and techniques of improving inservice training for teachers.
682	<b>School-Community Relations.</b> 3 hours. Background, need, and techniques for establishing a wholesome working relationship with laymen, with emphasis on their involvement in school programs.	692	<b>The Early Elementary School Principalship.</b> 3 hours. Prerequisite: Sch Ad 585. Problems of instruction; classification, promotion, and guidance of pupils; custodial services; relationship with patrons and community.
683	<b>Seminar in Curriculum Development.</b> 3 hours. Examination of factors influencing the curriculum development.	693	<b>The Middle School Principalship.</b> 3 hours. Prerequisite: Sch Ad 585. Programs of instruction; classification; promotion and guidance of pupils; relationships with professional and non-professional personnel and with the community.
684	<b>Instructional Leadership.</b> 3 hours. Identification of practices and characteristics of supervisors and administrators, relative to curriculum and instruction, that have been shown to significantly improve student achievement.	694	<b>The Secondary School Principalship.</b> 3 hours. Prerequisite: Sch Ad 585. Programs of instruction; classification, promotion, and guidance of pupils; the principal's relationship with non-professional personnel, patrons, and community.
686	<b>Principles of Supervision.</b> 3 hours. The instructional aspect of school ad-	695	<b>Seminar in Educational Administration.</b> 3 hours.
		696	<b>Advanced Theory in Education Administration.</b> 3 hours. Prerequisite: Permission of instructor. Theoretical approaches to the study of education administration and leadership.
		697	<b>Research in Administration and Supervision.</b> 1 to 3 hours. Special projects in administration and supervision.
		698	<b>Practicum in Administration and Supervision.</b> 3 to 6 hours. Prerequisite: Permission of instructor. Internship or other field experiences for administrators and supervisors.
		699	<b>Specialist Project.</b> 6 hours.
		699c	<b>Maintaining Matriculation.</b> 1 to 6 hours.

## DEPARTMENT OF HOME ECONOMICS AND FAMILY LIVING

ACADEMIC COMPLEX, CANNON 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, J. Rasdall

**Associate Professors:** V. Atkins, M. Casto, B. Fulwood, S. Gibbs

**Assistant Professor:** T. Roberts

**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 Home Economics (Interior Design and Housing, Textiles and Clothing, and Foods and Nutrition), 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 present 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 also 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 required 12-15 hours along with 15-18 hours in professional education. All programs leading to the standard high school certificate must contain Ed Fnd 500, Sec Ed 544, and 580, and either Psy 510, or

511. All programs must be approved by the coordinator of vocational home economics.

### Master of Science in Home Economics

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 master's degree. Three options are available: Interior Design and Housing, Textiles and Clothing, and Foods and Nutrition.

#### 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, 482G or 483G, 484G, 536, and 537.

Nine additional hours--either nine hours of approved electives or six hours of thesis and three hours of electives--in interior design and housing, and six 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, six hours of approved electives may 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.

#### 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 textiles and clothing elective courses, at least three of which must be at the 500-level or above; and six 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, six hours of approved coursework, at least three of which must be at the 500-level or above, must be taken in lieu of the thesis.

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

#### Option in Foods and Nutrition

Applicants must be eligible for admission to the Graduate College and should have adequate background in home economics education and/or in the allied health areas. Decisions regarding acceptability of coursework for admission, deficiencies, and program planning will be made by the graduate faculty in foods and nutrition. This option provides flexibility for students to emphasize course concentration consistent with their vocational goals: dietetics, restaurant management, industry, or teaching.

The required 30 hours of graduate work, with at least 15 hours at the 500-level or above, must include six hours of required core courses: HEFL 536 and 537. The major requires 12 hours in foods and nutrition. For Plan A, a thesis (six hours credit) must be submitted in a specific area of foods and nutrition. For Plan B, six hours of approved coursework must be taken in lieu of the thesis, e.g., HEFL 575 or 580. The cognate field requires six hours of coursework as approved by the graduate advisor.

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

#### Specialist in Education (Vocational Home Economics major)

See Department of Teacher Education.

### Graduate Courses in Home Economics and Family Living

520	<b>Seminar in Home Economics and Family Living.</b> 3 hours. Survey of recent developments and present trends conducted in a particular area of the Department of HEFL or deemed appropriate by faculty and student demand.	533	In-depth analysis of literature and research related to cultural aspects of clothing. Specific cultural emphasis will vary.	537	developments in institutional and home environment. Opportunity to pursue individual interest in specialized areas, e.g., textiles, clothing, merchandising, interior design, housing, foods, home economic education, etc.
521	<b>Interior Ergonomics I.</b> 3 hours. Sociological and psychological factors in interior design--separately, in relationship to each other, and in relationship to other disciplines.	535	<b>Developing Fashion Merchandising Programs.</b> 3 hours. Principles, problems, and practices of curriculum, field experiences, and extended classroom activities related to fashion merchandising.	537	<b>Critique and Design of Investigations in Home Economics.</b> 3 hours. Opportunity to pursue individual interest in specialized areas, e.g., textiles, clothing, merchandising, interior design, housing, food, home economics education, etc. Critical evaluation of theses and published research.
522	<b>Interior Ergonomics II.</b> 3 hours. Cultural and anthropometric literature related to interior design; interrelationships between culture and anthropometrics.	535	<b>Textile Analysis and Interpretation.</b> 3 hours. Prerequisites: HEFL 435 and chemistry. Qualitative and quantitative techniques for physical and chemical analysis of textiles. Planning and conducting textiles analyses and evaluating resulting data.	572	<b>Curriculum Development in Home Economics Education.</b> 3 hours. Curriculum trends in home economics education and curriculum development in specialized fields of home economics.
531	<b>Cultural Patterns of Dress.</b> 3 hours.	536	<b>Seminar in Institutional and Home Environment.</b> 3 hours. Technological, cultural, and educational		

**50**

**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.

**574 Supervision of Home Economics Education.** 3 hours.  
Prerequisite: Teaching experience, advanced courses, and consent of instructor. Theory, principles, and techniques of preservice and inservice training of teachers in home economics. Emphasis on preparation of supervisory materials and evaluation.

**575 Individual Study in Home Economics and Family Living.** 3 hours.  
Evaluation of home economics investigations. Includes planning and completing an individual study of limited scope.

**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 psychoanalytic theories of human development.

**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.

**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.

**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 theories of Rogers, Satir, Knox, Ellis, and Adler.

**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.

**582 Sensory Evaluations and Qualities of Foods.** 3 hours.  
Principles and methodologies in sensory evaluations of foods; collection, analysis and presentation of sensory data; focuses on determinants of quality in foods.

**583 Human Resources in Food Systems.** 3 hours.  
Identification of personnel needs by skill levels; planning and evaluation of personnel programs in food systems; training applicants for optimum utilization of human resources.

**584 Community Nutrition.** 3 hours.  
Analysis of literature and research related to nutrition problems facing patients returning to home and community; analysis of community resources that assist with specific problems. (Lecture, field trips and lab)

**585 Nutrition for the Elderly.** 3 hours.  
Analysis of literature and research related to nutrition problems of the elderly; analysis of resources that assist them with their specific problems. (Lecture, field trips, and lab)

**598 Special Topics in Home Economics and Family Living.** 1 to 6 hours.  
Prerequisite: Consent of instructor.

**599 Thesis Research and Writing.** 6 hours.

**599c Maintaining Matriculation.** 1 to 6 hours.

present.

**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.

**432G Recent Development in Textiles.** 3 hours.  
New developments in textiles as reported in current literature.

**433G Fashion Fundamentals.** 3 hours.  
Fashion as a social force. The fashion world; designers, leading markets, fashion cycles.

**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.

**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.

**461G Advances in Science of Nutrition.** 3 hours.  
Individual study of literature and research concerned with foods and nutrition.

**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.

**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.

**466G Experimental Foods.** 3 hours.  
Ingredients and their function; factors involved in food preparation; evaluation of foods by objective measurements.

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

**420G Non-Residential Studio.** 3 hours.  
Planning of non-residential interiors including cost control, selection of furnishing, lighting, and presentation.

**422G Textile Design II.** 3 hours.  
Historic and contemporary design. Applications for costume, home furnishings, and accessories.

**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.

**425G History of Costume.** 3 hours.  
Costumes from ancient times to present; cultural and economic factors.

**427G Presentation Techniques II.** 3 hours.  
Rendering and presentation techniques and materials including pen and ink, watercolor, marker, mixed media, portfolio preparation, and photographic reproductions.

**428G Merchandise Display and Promotion.** 3 hours.  
Principles and practices in arranging and displaying merchandise and in planning and executing sales promotions.

**430G Historic Textiles.** 3 hours.  
Prerequisite: HEFL 231.  
Decorative fabrics and the history of textile design from ancient times to

480G	<b>User-oriented Interior Design and Housing.</b> 3 hours. Methods of determining user needs so that resultant interior design and housing may satisfy those needs.	life education. Extension agents, social workers, and mental health professionals (in addition to teachers of family life education) may enroll.	496G	<b>Menu Planning and Merchandising for the Food and Lodging Industry.</b> 3 hours. Prerequisite: HEFL 492. Menu planning for group feeding, meeting nutritional needs of different age levels, portion costs, menu pricing, and merchandising.	
481G	<b>Lighting Design.</b> 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.	492G	<b>Institution Food Preparation.</b> 3 hours. Basic food preparation principles applied to quantity food production and services. Standardization of recipes and procedures. (Lecture, 1 hour; practicum, 10 hours)	497G	<b>Food and Labor Cost Control.</b> 3 hours. 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.
482G	<b>Residential Energy Resources and Problems.</b> 3 hours. Issues and trends in the supply and use of non-human energy resources. The roles and choices of space designers and consumers regarding design, selection, and use of housing, home furnishings, and appliances.	493G	<b>Institutional Purchasing.</b> 3 hours. Principles and methods of buying foods and supplies for various types of quantity food services. Emphasis on specifications, standards, inventory, and factors affecting quality and cost control.	498G	<b>Special Topics in Home Economics and Family Living.</b> 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.
483G	<b>Household Equipment Design and Usage Factors.</b> 3 hours. Materials, finishes, and design of household equipment. Emphasis on use, safety, and productivity.	494G	<b>Applied Institution Administration.</b> 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)	499G	<b>Parenting Strategies.</b> 3 hours. Major parenting approaches including Adlerian, behaviorist, and communication modalities. Emphasis upon specific parenting techniques along with the philosophical and developmental bases.
484G	<b>Space and Activity Analysis.</b> 3 hours. Includes concepts of time use, productivity, family economics and selected environmental components relative to housing interiors. Attention given to housing and design criteria for special needs.	495G	<b>Organization and Management of School Lunch Service.</b> 3 hours. Prerequisites: HEFL 390, 494. Sec Ed 370 is recommended. Organization and management of single and multiple school lunch units including menu planning, purchasing records, equipment, and meal service.		
491G	<b>Family Life Education.</b> 3 hours. Principles, practices, and content of family				

## DEPARTMENT OF PHYSICAL EDUCATION AND RECREATION

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

**Burch Oglesby, Head**

**Graduate Faculty**

**Professors: T. Crews, J. Jones, A. Little, W. Meadors**

**Associate Professors: C. Crume, C. Daniel, W. Kummer, S. Laney**

**Assistant Professor: D. Adkins**

**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 PE 501, 503, 504, 505, 515, and 530. Twelve (12) hours of electives are selected in consultation with the graduate advisor. Although a thesis is optional, students are encouraged to write a thesis. The research tool requirement may be met by demonstrating (1) competency in research techniques, or (2) reading proficiency in a foreign language.

### Master of Arts in Education (Physical Education major or minor)

Students following this program must meet all requirements for the standard high school certificate.

The student majoring in physical education must take PE 501, 504, 505, 520, and 420G. Six elective hours in physical education or allied areas are also required. The student minoring in physical education must take PE 504, 505, 520 and 420G. (Note: For both the major and minor, students who have taken an adaptive physical education course in their undergraduate program may substitute an elective course for PE 420G).

## Master of Science in Recreation

This program is designed to prepare professional recreation practitioners for a wide range of recreation and leisure-service occupations; provide opportunity for study in a specialized area of recreation; provide knowledge of research procedures; and provide academic background for students planning to pursue doctoral study. Although Plans

A and B are available, candidates are encouraged to write a thesis.

A twenty-four hour major in recreation is required with a six hour cognate field to be selected in consultation with the student's graduate committee. A research course is required. The required courses are: Rec 501, 513, and 523. The total number of graduate hours for this degree is 33 semester hours.

## 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 controversial issues and practice in seeking solutions.

### 515 Assessment in Physical Education and Recreation. 3 hours.

Focusing on assessment tools utilized to measure motor development, fitness, motor skills, etc.

### 520 Teaching Strategies in Physical Education. 3 hours.

Study and application of teaching strategies utilized in the elementary and secondary school PE setting.

### 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:

### 420G Adaptive Physical Education. 3 hours.

Study and field experience in the adaptation of the principles and practices of physical education programs for teaching handicapped children.

### 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.

### 492G Advanced Athletic Training. 3 hours.

Techniques needed in the prevention and care of athletic injuries--including

recognition, prevention, treatment, reconditioning, and rehabilitation.

## 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.

### 511 Recreation and Gerontology. 3 hours.

Importance of recreation to the lives of the aged; assisting them in worthwhile, constructive use of leisure time; developing statistical and problem solving skills essential to gerontological research, program planning, and administration.

### 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.

### 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.

### 517 Construction and Utilization of the Survey of Recreation. 3 hours.

Planning, application, and evaluation of the survey as a means of determining recreation program needs in selected settings.

### 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.

### 521 Public Relations for Parks and Recreation Programs. 3 hours.

Effective communication between colleagues, program participants, and the public through the use of audio-visual devices and techniques.

### 523 Philosophy and Trends. 3 hours.

Philosophical and historical development of opinions and attitudes toward the concepts of leisure and recreation.

530	<b>Independent Investigations in Recreation.</b> 3 hours. Special research problems in the area of recreation.	ment concepts in a natural setting; research and issues; synthesis of conceptual and practical knowledge through real and simulated applications.	Commercial recreation and tourism, including the establishment, supervision, and operation of areas and facilities.
590	<b>Internship in Recreation.</b> 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.	432G <b>Principles of Outdoor Recreation.</b> 3 hours. Values and extent of outdoor recreational philosophy based on legislation, geographic factors, land use, standards, agencies, and economics.	451G <b>Recreation Management.</b> 3 hours. Practical approach to management of park facilities and personnel. Includes program planning, design, and standards.
599	<b>Thesis Research and Writing.</b> 6 hours.	433G <b>Camp Administration.</b> 3 hours. Status, purpose, and administration of organized camping. Includes history and trends, selection and training of staff, health and safety considerations, etc.	456G <b>Advanced Studies in Recreation.</b> 3 hours.
599c	<b>Maintaining Matriculation.</b> 1 to 6 hours.	434G <b>Development of Nature Oriented Areas and Facilities.</b> 3 hours. Nature trail design and preparation, live and inanimate exhibit design and preparation, resource inventory, building, exhibit material purchase, vandalism, etc.	470G <b>Administration of Municipal Recreation.</b> 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.
	<b>The following 400-level Recreation courses may be taken for graduate credit:</b>	435G <b>Techniques in Outdoor Education.</b> 3 hours. Field trips, nature crafts, audio-visual aids and interpretive materials, etc., and their importance in developing outdoor education as a recreational activity.	471G <b>Community Centers and Playgrounds.</b> 3 hours. Playground and community center operation. Teaching techniques, programming, and problems relating to community recreation.
410G	<b>Therapeutic Recreation.</b> 3 hours. Principles, trends and programs of therapeutic recreation. Selected disabilities considered.	450G <b>Introduction to Commercial Recreation and Tourism.</b> 3 hours. Prerequisites: Rec 200, 300, 302, and 306.	481G <b>Recreation Seminar.</b> 3 hours. Introduces current problems, trends, and issues in the area of leisure services.
412G	<b>Adaptive Activities and Facilities for Recreation.</b> 3 hours. Methods of adapting recreational programs, activities, and facilities for the handicapped.		482G <b>Recreation Workshop.</b> 1 to 3 hours. In-depth study of specific skill areas relating to the recreational profession.
431G	<b>Recreation Resource Management.</b> 3 hours. Multi-use recreation resource manage-		

## DEPARTMENT OF PSYCHOLOGY

**TATE C. PAGE HALL**  
**ROOM 276 (502) 745-2695**

**John O'Connor, Head**

### Graduate Faculty

**Professors:** J. Cangemi, L. Clark, J. Craig, W. Cunningham, J. Johnson, C. Layne, L. Layne, C. Martray, S. McFarland, R. Mendel, L. Metze, R. Miller, J. O'Connor, H. Robe, D. Roenker, R. Simpson

**Associate Professors:** K. Ball, C. Eison, E. Erffmeyer, D. Grice, B. Howton, E. Owen, W. Pfohl, R. Poe, D. Redfield

**Assistant Professors:** J. Bruni, S. Kuhlenschmidt

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

### Master of Arts in Psychology

This general program provides preparation for students

who wish to pursue careers in clinical, industrial, governmental, or school settings. The Department offers four options within the program: clinical, experimental, industrial, and school psychology. Within each option, the student is expected to become competent in theory, research, and application 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 3.0 in psychology courses; and three letters of recommendation sent to the Department, along with an application separate from that sent to the Graduate College Office. Beyond these stated minimum requirements, selection is competitive.

Core requirements (24 hours) for all options are as follows:

- Experimental design - 3 hours
- Professional psychology - 3 hours
- Social psychology - 3 hours
- Psychometric theory - 3 hours
- Individual differences - 3 hours
- Cognitive affective bases of behavior - 3 hours
- Thesis or elective work - 6 hours

Both Plan A (thesis) and Plan B (non-thesis) are available. The research tool is required in all options. Practicum or internship may be required. A comprehensive examination

is required at the time of thesis defense or upon completion of coursework.

### 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. Practicum, internship, and thesis (or 2 course electives) are required.

Specific course requirements (15 hours) are as follows:

- Psy 560 Individual Assessment-3 hours
- Psy 640 Psychopathology-3 hours
- Psy 641 Clinical Interviewing-3 hours
- Psy 660 Psychological Evaluation-3 hours
- Psy 480G or 580 Physiological Psychology-3 hours

### Industrial-Organizational 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. Selection systems, the Equal Employment Opportunity Commission's (EEOC) guidelines on employment selection procedures and relevant court decisions, and training in business and industry are emphasized in the program. A four-to-six months internship in personnel psychology is encouraged. Thesis is required.

Specific course requirements (15 hours) are as follows:

- Psy 513 Advanced Statistical Analysis-3 hours
- Psy 570 Intro to Ind/Org Psychology-3 hours
- Psy 571 Personnel Psy-3 hours
- Psy 572 Organizational Psy-3 hours
- Psy 670 EEOC, the Law, and Ethical Considerations-3 hours

### Graduate Courses in Psychology

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

New developments and special topics in contemporary psychological research. May be repeated with a different topic.

**505 Statistical Software for Behavioral Scientists.** 3 hours.

Prerequisites: Three hours of undergraduate statistics and graduate standing or permission of instructor.

Develops proficiency in use of statistical software for mainframe and personal computers. Emphasis on SPSS. Data base management for the PC also addressed. Fall and Summer of each year.

**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 condition-

ing, social learning, reinforcement, problem solving, motivation and structure of the learning situation.

515

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.

516

**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.

519

**520 Psychology of Individual Differences.**

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.

512

**513 Advanced Statistical Analysis.** 3 hours. Prerequisite: Psy 512 or permission of instructor.

Advanced analysis techniques appropriate 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.

### 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 individual receives on-site experience in public schools, school-related practicum assignments in the Department's psychological clinic, and experience as a member of an interdisciplinary team. 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. Practicum, internship, and thesis (or 2 course electives) are required.

Specific requirements (15 hours) are as follows:

- Psy 514 Program Evaluation - 3 hours
- Psy 540 Behavior Prob of Child and Adol. - 3 hours
- Psy 560, 561 Indiv Assessment I, II - 6 hours
- Psy 643 Psycho Ed Assessment - 3 hours

### Experimental Psychology

This option is designed for students who desire a terminal master's degree in general psychology not vocationally related or who plan to pursue doctoral studies in specialities not included above. Course requirements beyond those required in the core are individually determined by the faculty advisor.

### 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.

	3 hours. Research and theory in developmental aspects of behavior from the prenatal period to adulthood with emphasis upon individual differences.		563	educational or clinical setting for the diagnosis of intellectual and learning problems. (May be repeated.)		641	modification of deviant behavior and developmental patterns of learning and motivation variables.
521	<b>Advanced Child Psychology.</b> 3 hours. Particular emphasis upon a critical review of current research in child development.		563	<b>Test Construction and Psychometric Theory.</b> 3 hours. Introduction to psychometrics with emphasis on both technical and ethical problems involved in the use and construction of psychological measurement instruments.		641	<b>Clinical Interviewing and Psychotherapy I.</b> 3 hours. Selected theories and techniques of psychotherapy and counseling. Also covers group therapy, clinical topics, and professional and ethical issues.
522	<b>Advanced Adolescent Psychology.</b> 3 hours. Current research and theories in the area of adolescent psychology as they relate to physical, social, emotional, and intellectual development.	570	570	<b>Introduction to Industrial/ Organizational Psychology.</b> 3 hours. Overview of the I/O discipline. Acquaints students with the major perspectives, methods, and applications in the content areas of this concentration.		642	<b>Clinical Interviewing and Psychotherapy II.</b> 3 hours. Prerequisite: Psy 641. Continuation of 641 with emphasis on group, family, and marital psychotherapy.
523	<b>Cognitive Theory.</b> 3 hours. Information processing, thinking and cognition. Covers major theories and research techniques in the area.	571	571	<b>Personnel Psychology.</b> 3 hours. Prerequisite: Psy 570. Employee selection procedures, with emphasis on methods and techniques of job analysis, interviewing, testing, etc. Direct involvement in data collection and analysis.		643	<b>Psychoeducational Assessment.</b> 3 hours. Prerequisites: Psy 560, 561, 564. Diagnostic procedures for the mentally handicapped, culturally disadvantaged, and learning disabled. Includes psychoneurological issues. Students will be exposed to and write Individual Educational Programs (IEP).
540	<b>Behavior Problems of Childhood and Adolescence.</b> 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.		572	<b>Organizational Psychology.</b> 3 hours. Prerequisite: Psy 570. Selected topics relevant to work organizations. Emphasizes current theories and research practices.	660	660	<b>Psychological Evaluation I.</b> 3 hours. Prerequisite: Psy 560. Personality diagnosis using objective and projective techniques with emphasis on current research interpretation, and communication of assessment information.
541	<b>Introduction to Professional Psychology.</b> 3 hours. Roles and responsibilities of professional psychologists emphasizing the ethical, legal, and methodological issues for the master's level practitioner.	580	580	<b>Advanced Physiological Psychology.</b> 3 hours. Anatomy of the nervous system, relationships among the components of the nervous system and psychological functioning.	661	661	<b>Psychological Evaluation II.</b> 3 hours. Prerequisite: Psy 660. A continuation of 660 with emphasis on personality measures and procedures for assessing psychological and neuropsychological disorders.
550	<b>Personality Theory.</b> 3 hours. 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.	581	581	<b>Laboratory in Advanced Physiological Psychology.</b> 3 hours. Corequisite: Psy 580. Physiological techniques of electrical recording and electrical chemical stimulation.	662	662	<b>Practicum in Psychological Practice.</b> 1 to 3 hours. 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.
551	<b>Social Psychology of Organizations.</b> 3 hours. The dynamics of groups and organizations. Current theory and research in psychology of organizations.	590	590	<b>Readings of Research in Psychology.</b> 1 to 3 hours. Prerequisite: Departmental permission only. Individual readings or research. Arrangements must be made before enrollment.	670	670	<b>Equal Employment Opportunity, the Law, and Ethical Considerations.</b> 3 hours. Prerequisite: Psy 570. 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.
552	<b>Advanced Social Psychology.</b> 3 hours. 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.	591	591	<b>Internship in College Teaching.</b> 1 to 2 hours. Problems and methods of teaching at the college level. Students enrolled in this course will concurrently teach a course in introductory or general psychology.	673	673	<b>Advanced Training in Business and Industry.</b> 3 hours. Prerequisites: Psy 571, 572, or permission of instructor. Theories, research and methods of training needs analysis, program design, implementation, and evaluation.
560	<b>Individual Assessment I.</b> 3 hours. Administration of the WICS, WAIS, WPPSI, BINET, and other individually administered tests used as basic tools in education, occupational guidance, clinical diagnosis.	592	592	<b>Psychology Internship.</b> 3 hours. Field experience for clinical, school, industrial, or other psychologists. Required for Kentucky certification. Typically taken in the student's last semester in residence.			
561	<b>Individual Assessment II.</b> 3 hours. Interpretation of the tests commonly used in educational, vocational guidance and clinical diagnostics. Emphasis on report writing and basic clinical practice.	599	599	<b>Thesis Research and Writing.</b> 6 hours.			
562	<b>Practicum in Psychological Assessment.</b> 1 to 3 hours. Corequisite: Psy 560 or 561. Supervised experience in the administration and interpretation of tests used in an	599c	599c	<b>Maintaining Matriculation.</b> 1 to 6 hours.			
		640	640	<b>Psychopathology.</b> 3 hours. Major forms of child and adult psychopathology with emphasis upon recent research, classification systems, the			

**These 400-level courses may be taken for graduate credit:**

410G **Psychology of Learning.** 3 hours.

	Prerequisites: Psy 201, 210, or permission of instructor. 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.	ences, with emphasis on understanding feminine personality, socialization, and sexuality. Includes discussion of mental health issues that concern women.	460G <b>Methods and Research in Social Psychology.</b> 3 hours. Research methods of social psychology and examination of major research areas. Primarily for psychology majors and minors.
411G	<b>Psychology of Sensation and Perception.</b> 3 hours. Prerequisites: Psy 201, 210, or permission of instructor. Basic data and theories of psycho-physics, illusions and other topics fundamental to the understanding of sensory and perceptual processes.	432G <b>Psychology of the Gifted and Creative.</b> 3 hours. Prerequisite: Psy 100. Identification of gifted children and adults with emphasis on educational programs for the maximum development of giftedness.	473G <b>Training in Business and Industry.</b> 3 hours. Prerequisites: Psy 370 or Mgmt 310 and 311, or permission of instructor. Theories, research and methods of training needs analysis, program design, implementation, and evaluation.
412G	<b>Psychology of Motivation and Emotion.</b> 3 hours. Prerequisites: Psy 201, 210, or 410 or permission of instructor. 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.	440G <b>Abnormal Psychology.</b> 3 hours. Prerequisite: Six hours in psychology. Forms of abnormal behavior, etiology, developmental courses, interpretations, behavioral manifestation and treatment programs.	480G <b>Physiological Psychology.</b> 3 hours. Prerequisites: Psy 201, 210, and three hours in biology or permission of instructor. Physiological mechanisms which underlie behavior. Specific areas of emphasis include current research on neurological, biochemical, and sensory mechanisms which influence behavior.
421G	<b>Psychology of Early Adolescence.</b> 3 hours. Developmental theories, research, and literature relating to the early adolescent. A course for students planning to meet junior high school certification requirements.	441G <b>Psychological Aspects of Alcoholism.</b> 3 hours. Prerequisites: Psy 440 and permission of instructor. Application of psychological theories and research to the treatment of alcoholism.	485G <b>Psychology of Religion.</b> 3 hours. Prerequisites: Nine hours of Psy or permission of instructor. Psy 201, 210, and 450 preferred. Classical theories and current research in the psychology of religion. Course will be offered once every two years. According to current course rotation it will be offered spring of even numbered years.
422G	<b>Adolescent Psychology.</b> 3 hours. Behavior and development from early adolescence to adulthood with emphasis on a critical review of research and literature in the field.	442G <b>Beginning Skills in Psychological Interviewing.</b> 3 hours. Prerequisites: Six hours in Psy and permission of instructor. Psy 440 or 450 recommended. Paraprofessional skills for conducting structured and unstructured interviews in non-therapy settings. Emphasizes skills development but also covers some theoretical material.	490G <b>Special Topics in Psychology.</b> 3 hours. Faculty directed research and/or readings in psychology.
423G	<b>Psychology of Adult Life and Aging.</b> 3 hours. Prerequisite: Psy 100. Early adulthood, mid-life, and old age. Both descriptive and theoretical, the emphasis will be on contemporary psychological theories and literature, methodological issues, and the interaction of psychological, biological, social, and environmental factors in adulthood and aging.	443G <b>Behavior Theory and Application.</b> 3 hours. Prerequisite: Psy 410, or enrollment in special education sequence. Theory and application of techniques for modifying behavior in clinics, hospitals, child rearing and education.	495G <b>History and Systems of Psychology.</b> 3 hours. Prerequisite: Nine hours in psychology. Historical antecedents of contemporary psychology. Both the sequence of psychological theory evolution and personality of prominent theorists are emphasized.
430G	<b>Psychology of Women.</b> 3 hours. Nature and development of sex differ-	450G <b>Introduction to Personality Theory.</b> 3 hours. Prerequisite: Nine hours of psychology or permission of instructor. 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.	499G <b>Senior Seminar in Psychology.</b> 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

**TATE C. PAGE HALL**  
**ROOM 104 (502) 745-5414**

**Curtis L. Englebright, Head**

### Graduate Faculty:

**Professors:** J. Becker, S. Cooke, C. Englebright,

J. Gibbs, R. Hicks, J. Koper, A. Laman, R. Melville, E. Monroe, R. Otto, R. Panchyshyn, R. Pankratz, E. Rich, J. Sanders, H. Simmons, R. Stevenson, J. Vokurka, D. Watts.

**Associate Professors:** E. Counts, G. Galluzzo, F. Kersting, R. McKenzie, D. Ritter, J. Roberts, A. Ruff, R. Smith, K. Taylor, S. Taylor.

**Assistant Professors:** J. Ferguson, N. Minix, R. Shinn.

**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 a standard early grades/elementary certificate, applicants must (1) hold or be eligible to hold a provisional teaching certificate at the early grades/elementary level or (2) have a valid early grades conversion program on file with the Office of Teacher Admissions, Certification, and Student Teaching. (Note: Conversion program must be completed prior to or simultaneously with the M.A. in Education.)

### Option I

This option is for candidates holding or eligible for early grades certification (K-4). This M.A. in Education degree program meets Kentucky requirements for the Standard Early Grades Certificate. The program may be planned to include a certification endorsement for reading, elementary library, exceptional child education, or gifted and talented education.

- A. Professional Education Component (12 hours):
  - (1) Required--6 hours--El Ed 503, and Rdg Ed 519.
  - (2) Restricted Elective--3 hours--Psy 510, Psy 511 or Psy 519.
  - (3) Restricted Elective\*--3 hours--El Ed 505, El Ed 506, El Ed 507, or El Ed 509.
- B. Specialization Component (12 hours):
 

Twelve hours of advisor-approved, graduate level, subject-related courses pertinent to the certified grade level.
- C. Elective (6 hours):
 

Six hours of advisor-approved, graduate level, professional education or subject-related courses.
- D. Research Tool (3 hours):
 

Ed Fnd 500 (Grade of B or better required.)

\*may be waived for appropriate endorsement requirements.

### Option II

This is for candidates holding or eligible for elementary certification (grades 1-8, or K-8). This M.A. in Education degree program meets Kentucky requirements for the Standard Elementary Certificate. The program may be planned to include a certification endorsement for reading, elementary library, exceptional child education, gifted and talented education, or kindergarten.

- A. Professional Education Component (12 hours):
  - 1. Required: Rdg Ed 519.
  - 2. Restricted Elective (3 hours): El Ed 503, or Mge 571.
  - 3. Restricted Elective (3 hours): Psy 510; Psy 511,; Psy 519, or Psy 540.
  - 4. Restricted Elective (3 hours)\*: El Ed 505; El Ed 506; El Ed 507; or Mge 544.
- B. Specialization Component (12) hours:
 

Twelve hours of advisor-approved, graduate level, subject-related courses pertinent to the certified grade levels.
- C. Electives (6 hours):
 

Six hours of advisor-approved, graduate level, professional education, or subject-related courses.
- D. Research Tool (3 hours):
 

Ed Fnd 500 (Grade of B or better required.)

\*may be waived for appropriate endorsement requirements.

## Master of Arts in Education (Middle Grades Education Major)

Since this program leads to a standard middle grades certificate, applicants must (1) hold or eligible to hold a provisional teaching certificate at the middle grades level or (2) have a valid middle grades conversion program on file with the Office of Teacher Admissions, Certification, and Student Teaching. (Note: Conversion program must be completed prior to or simultaneously with the Master of Arts in Middle Grades Education.)

Middle Grades Education is for candidates holding or eligible for middle grades certification (grades 5-8). This M.A. in Education degree program meets Kentucky requirements for the Standard Middle Grades Certificate. The program may be planned to include a certification endorsement for reading, elementary library, exceptional child education, or gifted and talented education.

- A. Professional Education Component (12 hours):
  - 1. Required--6 hours--Mge 544\*; Mge 571.
  - 2. Restricted Elective--3 hours--Psy 510; Psy 511, Psy 519; or Psy 540.
  - 3. Restricted Elective--3 hours--Rdg Ed 519; or Rdg Ed 524.
- B. Specialization Component (12 hours):
 

Twelve hours of advisor-approved, graduate level, subject-related courses pertinent to the area(s) of certification.
- C. Electives (6 hours):
 

Six hours of advisor-approved, graduate level, professional education, or subject-related courses.
- D. Research Tool (3 hours):
 

Ed Fnd 500 (Grade of B or better required.)

\*may be waived for appropriate endorsement requirements.

## Master of Arts in Education (Secondary Education Major or Minor)

Since this program leads to a standard secondary certificate, applicants must (1) hold or be eligible to hold a provisional certificate at the secondary level or (2) have a valid secondary education conversion program on file with the Office of Teacher Admissions, Certification, and Student Teaching. (Note: Conversion program must be completed prior to or simultaneously with the Master of Arts in Education.)

This M.A. in Education degree program meets Kentucky requirements for the Standard Secondary Certificate. Candidates 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, chemistry, communication, economics, English and allied language arts area, French, geography, German, health, history, home economics, industrial education, 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, chemistry, communication, theatre, economics, English, folk studies, French, geography, German, health, history, home economics, industrial education, mathematics, music, physical education, physics, psychology, science area,

science area, secondary education, sociology, and Spanish.

- A. Professional Education Component (12 hours):
  - 1. Required Courses (9 hours): Ed Fnd 500, Sec Ed 544, and Sec Ed 580.
  - 2. Restricted Elective (3 hours): Psy 510, Psy 511, or Psy 519.
- B. Specialization Component (12 hours):
 

Twelve hours of advisor-approved graduate level, subject-related courses pertinent to the area(s) of certification.
- C. Electives (6 hours):
 

Six hours of advisor-approved, graduate level, professional education (education major) or subject-related (education minor) courses.

**Gifted and Talented Education Requirements:**  
GTE 536, 537, 538, Psy 432G

**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, health and safety, home economics and family living, 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, health and safety, home economics and family living, industrial education, library science, physical education, psychology, recreation, sociology.

**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 45 hours in the area to meet the National Association's academic requirements. A strong academic background in psychology and/or gerontology is desirable.

Thirty-six 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 200 clock hours of clinical experience at the graduate level and a clinical externship during the final semester.

The research tool requirement may be met by successful (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.

Two options are available within the structure of this degree program. Both program options meet academic and clinical requirements for the American Speech Language and Hearing Association, leading to national certification and state licensure.

Those selecting Option A must also complete Exc Ed 330; Psy 100, 320 or 330; and El Ed 250, or Sec Ed 271.

**Option A** leads to provisional teacher certification in exceptional child education--speech and communication disorders. Course requirements are as follows:

Ed Fnd 500; Exc Ed 503; Exc Ed 504; Exc Ed 505; Exc Ed 506; Exc Ed 508; Exc Ed 509; Exc Ed 510; Exc Ed 512; Exc Ed 590; Exc Ed 591.

**Option B** is designed to prepare professional speech pathologists to meet the needs of the communicatively handicapped in hospitals, clinics, nursing facilities, and residential schools. Course requirements are as follows:

Ed Fnd 500; Exc Ed 489G; Exc Ed 502; Exc Ed 504; Exc Ed 506; Exc Ed 507; Exc Ed 508; Exc Ed 509; Exc Ed 510; Exc Ed 511; Exc Ed 590; Exc Ed 591.

## 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 combined) of 800 on the General Test 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 a requisite core of six hours must be taken from the following or their equivalents:

LME 502, or 401G - 3 hours  
LME 445G or 545 - 3 hours

The remaining 24 hours of coursework will be selected in consultation with the advisor and in consideration of the student's academic work and career goals.

## 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, and gifted and talented education. 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.

## 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. That official then certifies to the State Department of Education that rank requirements have been met.

### Rank II Non-Degree Programs

The Department of Teacher Education 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 the professional education and a minimum of 12 hours in cognate areas.
5. At least 18 hours must be in graduate level courses.
6. Coursework taken by correspondence is not accepted.

### Rank II (Elementary Education: K-4, 5-8, 1-8)

The following courses and their distribution would meet requirements for a Fifth Year Program.

#### Required:

El Ed 503 and Rdg Ed 519 (K-4)  
MGE 544\* and MGE 571 (5-8)  
Rdg Ed 519 and El Ed 503, or MGE 571 (5-8)  
Three semester hours from: Psy 510, 511, or 519 (K-4)  
Psy 510, 511, 519, 540 (5-8; 1-8)

#### Three semester hours from:

El Ed 505\*, 506\*, 507\*, 509\* (K-4)  
Rdg Ed 519, 524, (5-8)  
El Ed 505\*, 506\*, 507\*, MGE 544\* (1-8)

Twelve semester hours from specialization courses selected in consultation with advisor (K-4; 5-8; 1-8)

Eight semester hours of electives selected in consultation with advisor (K-4; 5-8; 1-8)

\*may be waived for specific endorsement courses

### Rank II (Secondary Education)

Note: This program is to be followed by students admitted

to the Fifth-Year Program January 1988, and thereafter.

The professional education component consists of (A) required core courses, (B) elective core courses, and (C) general electives. Students are required to complete a minimum of 12 semester hours of core courses. The elective core courses and the general elective courses must be selected in consultation with an assigned advisor.

**A. Required Core Courses--9 hours required:**

Sec Ed 544; Sec Ed 580; Psy 510; Psy 511

**B. Elective Core Courses--3 hours required:**

Ed Fnd 576; Ed Fnd 577; Ed Fnd 500; Psy 519

**C. General Electives--students may select up to 8 hours from this section or from section B. The total education hours shall not exceed 20 hours:**

Sec Ed 444G; Sec Ed/LME 445G; Sec Ed 484G; Sec Ed 528-542; Sec Ed 545; Sec Ed 570; Rdg Ed 524; Rdg Ed 519; Sch Ad 585; Sch Ad 598; Cns Ed 550; Cns Ed 554; GTE 536; GTE 537; MGE 421G; MGE 450G; Psy 422G; Psy 421G; LME 448G; Ed Fnd 667; Exc Ed 516.

(A maximum of 9 hours Independent Study-Workshops may be included but must be distributed 6 in one area, 3 in another area.)

**D. Fifth-Year Specialization Component**

Students are required to complete a minimum of 12 semester hours in the specialization component. Should the student so choose, it is possible to complete up to 20 hours in the specialization component.

The following guidelines are used in selecting appropriate courses:

1. The Fifth-Year student must meet with the assigned advisor in the appropriate specialization area to select courses for this component of the Fifth-Year program.
2. The minimum 12 hours must come from either the student's teaching major or teaching minor or a closely related area.
3. A closely related area is defined as a subject that is part of the same secondary school curriculum area as the major or minor.
4. A student who completes more than 12 semester hours in the specialization component must select the additional 3 to 8 hours in accordance with the guidelines above.

## Rank I Programs

The Department of Teacher Education offers Rank I Programs for Elementary and Secondary Teachers which lead to the Rank I salary classification.

### 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 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.

- A. Nine semester hours: El Ed 603; 604; Exc Ed 516.
- B. Six to nine semester hours: Ed Ed 505; 506; 507; 544; 545; 570W; Ear Ed 508; 509; Rdg Ed 519; 523; GTE 536; 537; 538.
- C. Three semester hours may be elected from: Cns Ed 550; Ed Fnd 576; 577; Sch Ad 677; 585; 598
- D. Twelve semester hours from: Psy 510; 511; 519; 520; 521; 540; LME 410G; 411G; 445G; 518; Hi Sft 465G; 469G; HEFL 419G; 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)

#### 1. Required Professional Courses--6 hours required:

Exc Ed 516; Sec Ed 604.

#### 2. Related Professional Courses--6 to 12 hours required

(Students may substitute courses in their undergraduate teaching major or minor or in an area for which their certificate has been/will be endorsed in place of courses in this area. This should be done only after consulting with your advisor.)

- A. Select three to six hours from the following courses in consultation with your advisor:  
Sec Ed 444G; MGE 450G; Sec Ed 528; Sec Ed 544; Sec Ed 570W; Sec Ed 580; GTE 536; Psy 519.
- B. Select additional courses from either Section A or B in consultation with your advisor:  
Sec Ed/LME 445G; GTE 537; Cns Ed 550; Cns Ed 554; Sch Ad 585; Sch Ad 598; Sch Ad 677; Ed Fnd 500; Ed Fnd 576; Ed Fnd 577; Rdg Ed 519; Rdg Ed 524; MGE 421G; Psy 590; Psy 421G-422G; LME 488G.

3. Related Non-Professional Education Courses--12 to 18 hours required:  
 Select courses in consultation with your advisor.  
 Note: There is a limit of 9 hours workshop and Indepen-

dent Study credit that can be used on a Rank I program. Only three of those 9 hours can be one credit hour courses. A total of 24 hours non-professional education courses is required for Rank II and Rank I combined.

## Graduate Courses in Teacher Education

### 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.

**508 Foundations and Organization of Early Childhood Education.** 3 hours.

Emphasizes the importance of appropriate early learning experiences including philosophical, theoretical, and empirical bases of instruction.

**509 Advanced Methods and Materials for Early Childhood Education.** 3 hours.

Examination of alternative instructional strategies and support materials appropriate for early learners in language arts-reading, mathematics, social studies, and science.

**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. Examination of alternative teaching strategies related to four major goal attainment areas: fact/process retention, information processing, social interaction, and personal 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.

**570W Workshop--Elementary Education.** 3 hours.

504

**599 Thesis Research and Writing.** 6 hours.

**599c Maintaining Matriculation.** 1 to 6 hours.

**603 Advanced Seminar Elementary Curriculum.** 3 hours.

505

Strategies and models to assist the elementary classroom teacher in assuming an active role in total elementary school curriculum development.

**604 Management of 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.

506

**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.

507

**699 Specialist Project.** 6 hours.

**699c Maintaining Matriculation.** 1 to 6 hours.

508

### The following 400-level El Ed courses may be taken for graduate credit:

**420G Reading in the Primary Grades.** 3 hours.

Prerequisite: Ed 320. Principles and methodologies currently in use at the primary (K-4) school levels.

509

**445G Introduction to Educational Technology.** 3 hours.

Instruction and laboratory experiences in the basic theory and application of educational technology to the design, production, evaluation, and utilization of various media. Cross-listed with LME 445G.

510

### Exceptional Child Education (Ex Ch Ed)

**502 Motor Speech Disorders.** 3 hours.

The etiologies, communication characteristics, appraisal and treatment of motor speech disorders.

511

**503 Advanced Diagnostic Procedures in Speech Pathology.** 3 hours.

Prerequisites: Exc Ed 481 or 481G, and

512

**485 or 485G.**

Expansion of diagnostic theory and procedures utilized in clinical settings by the certified speech pathologist.

**Seminar in Language Disorders of Childhood.** 3 hours.

Prerequisites: Exc Ed 481 or 481G, and 483 or 483G, or permission of instructor.

Language development disorders of children. Characteristics of normal as well as delayed and disrupted language patterns and their differential diagnosis.

**Communication Disorders of Cleft Palate and Cerebral Palsy.** 3 hours.

Prerequisite: Exc Ed 481/481G. Etiology, diagnosis, and management of speech and language dysfunctions associated with cleft palate and cerebral palsy.

**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.

**Dysphasia.** 3 hours.

Prerequisite: Exc Ed 481 or 481G. Dysphasia-including symptomatology, etiology, differential diagnosis, and training, with primary emphasis on adult problems.

**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 electrolarynx as a substitute voice.

**Speech Science.** 3 hours.

Contemporary research in the area of speech science.

**Seminar in Speech Pathology.** 3 hours.

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.

**Neurology of Speech and Language.** 3 hours.

Neuroanatomy and neurophysiology as it applies to normal reflex, motor and perceptual speech, and language behavior. Emphasis given to test procedures for evaluation.

**Seminar in Phonology.** 3 hours.

Application of phonology theory and

	development to the treatment of speech/language disabled persons.	591	<b>Clinical Externship.</b> 1 to 6 hours. Prerequisite: Permission of instructor. Course design allows the student to obtain on-site experience in a variety of settings including school, hospitals, rehabilitation facilities, nursing homes, and home health agencies.	489G	<b>Geriatric Communication Disorders.</b> 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.
516	<b>The Exceptional Child: Perspectives and Issues.</b> 3 hours. Characteristics, needs, and problems of children who are atypical in the mental, physical, sensory, emotional, and social areas of development.	599	<b>Thesis Research and Writing.</b> 6 hours.	490G	<b>Clinical Internship in Speech.</b> 3 hours. Supervised clinical experience, including individual and group therapy.
518	<b>Seminar: Problems in Special Education.</b> 3 hours. Prerequisite: Exc Ed 516. Issues in special education. Classroom experiences to develop awareness and sensitivity to educational needs.	599c	<b>Maintaining Matriculation.</b> 1 to 6 hours.	491G	<b>Augmentative Communication.</b> 3 hours. Prerequisite: Exc Ed 486G. The etiology, evaluation, and design of various augmentative devices for communicatively impaired individuals.
530	<b>Advanced Assessment Techniques.</b> 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.	406G	<b>Phonetics.</b> 3 hours. Cross-listed with Eng. 405G		
531	<b>Advanced Prescriptive Teaching.</b> 3 hours. Adapting the learning environment to the learner. The affective, cognitive, and psychomotor aspects of a specialized learning environment.	431G	<b>Language Intervention with Handicapped Children.</b> 3 hours. Prerequisites: Exc Ed 330, 331, 333, 430, 432. Overview of language development, with emphasis on the educational remediation of language disorders of the handicapped. Utilization of methods and materials that foster language development.		
532	<b>Intervention Strategies with Parents.</b> 3 hours. Interpreting programs for handicapping conditions to maximize family involvement. Emphasizes the attitudes, skills, and knowledge taught in the educational program.	460G	<b>Special Problems.</b> 1 to 3 hours. Investigation of a special problem from an area of individual interest.	537	<b>Curriculum, Strategies, and Materials for Gifted Students.</b> 3 hours. The curriculum and the learning environment in meeting the unique and advanced needs of gifted students. Strategies particularly suitable for the gifted.
533	<b>Seminar: Curriculum for Learning and Behavior Disorders.</b> 3 hours. Development, adaptation, and evaluation of curricula, methods, materials, and resources. Implementing and evaluating instructional programs.	481G	<b>Speech and Language Development.</b> 3 hours. Normal speech and language development in preschool and school-age children, including concomitant development of cognition and socialization.	538	<b>Practicum for Teachers of Gifted Students.</b> 3 hours. Prerequisites: GTE 536, 537, and Psy 432G. Supervised experiences to integrate the knowledge and skills needed to plan, implement, and evaluate effective learning experiences for gifted, creative, and talented students.
534	<b>Seminar: Research in Exceptional Child Education.</b> 3 hours. Non-categorical and discrete areas of exceptionalities. Emphasis on an independent research project.	482G	<b>Audiology.</b> 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.		
535	<b>Advanced Curriculum for the Moderately Retarded.</b> 3 hours. Curricula and programs for the moderately retarded. Focuses on a continuum of services philosophy for the handicapped.	483G	<b>Articulation Disorders.</b> 3 hours. The etiology, evaluation, and management of articulatory disorders in children and adults.		
580	<b>Diagnostic Procedures in Speech Disorders.</b> 1 hour. Identification of speech disorders and treatment available.	484G	<b>Speech Anatomy and Physiology.</b> 3 hours. Structures and functions which comprise the speech mechanism and its relation to the production and development of speech and language.	502	<b>The Library in Society.</b> 3 hours. Types of libraries and their history, laws, standards, and inter-cooperation. Librarianship as a career, professionalism and the freedom to read.
589	<b>Special Topics in Communication Disorders.</b> 1 to 3 hours. Independent investigation of special topics.	485G	<b>Introduction to Diagnostic Procedures in Communication Disorders.</b> 3 hours. Theory and utilization of the most common screening and diagnostic techniques in speech pathology. Evaluation procedures for all communicative dysfunctions.	509	<b>Investigations in Library Science.</b> 3 to 6 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.
590	<b>Clinical Internship in Speech Pathology.</b> 1 hour. Advanced, supervised, clinical practicum. Clinical experience with the more acute communication disorders. Must be repeated for a total of three (3) hours.	486G	<b>Language Disorders.</b> 3 hours. Identification, diagnosis, evaluation, and treatment techniques to be used with language disorders--specifically, aphasia and delayed language problems.	518	<b>Advanced Children's Literature.</b> 3 hours. Materials available to meet the needs of children including outstanding authors, illustrators, topical issues, and the reviewing of children's books.
		487G	<b>Aural Rehabilitation.</b> 3 hours. Principles and procedures of communication and amplification systems for the hearing impaired.	519	<b>Special Topics.</b> 3 hours. Special topics in the field of media services. May be repeated once with a different topic.
				545	<b>Production and Instructional Media.</b> 3

hours. Instruction and laboratory experience in advanced production of graphics, photographic, and audio media products with emphasis on media design. Requires production of instruction medium for course project.

547 **Instructional Technology.** 3 hours. Basic principles of instructional prototype development with application of currently accepted instructional system audio media, graphics, and CAI programs.

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.

**These 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.

406G **Classification and Cataloging.** 3 hours. Classification, descriptive cataloging, main entries, added entries, shelf list, and filing. Laboratory sessions.

407G **Literature for Young People.** 3 hours. Selection and evaluation of materials, reading guidance, and programming for young people--adolescence through young adult.

408G **Reference and Bibliography.** 3 hours. Study of bibliographies, indexes, dictionaries, encyclopedias, yearbooks, almanacs, 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 audiovisual equipment and materials.

445G **Introduction to Educational Technology.** 3 hours. Instruction and laboratory experiences in the basic theory and application of educational technology to the design, production, evaluation, and utilization of various media. Cross-listed with El Ed 445G, and Sec Ed 445G.

448G **Microcomputer Applications in Education.** 3 hours. Uses of microcomputers in instruction and instructional management. Emphasis on evaluation and utilization of appropriate software and related hardware.

475W-G **Workshop in Library Science.** 1 to 3 hours. One, two, and three week workshops designed primarily for practicing librarians.

**Middle Grade Education (MGE)**

544 **Classroom Teaching Strategies.** 3 hours. Cross-listed with El Ed 544.

545 **Investigations in Classroom Teaching.** 1 to 3 hours. Opportunity for middle school teachers to engage in concentrated study of specific problems and/or development of specific skills related to effective classroom instruction.

570W **Workshop in Middle School Education.** 3 hours. Activity-centered on a relevant area of study.

571 **Middle School Curriculum.** 3 hours. Examination of programs designed for the young adolescent. Functions, organizations, planning, and evaluation of the curriculum. Includes special curricular areas.

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

421G **Reading in the Middle Grades.** 3 hours. Prerequisite: Ed 220. Principles and methodologies currently in use in the middle grades (5-8) emphasizing reading instruction in the content areas.

444G **Reading in the Secondary School.** 3 hours. Cross-listed with Sec Ed 444G.

445G **Introduction to Educational Technology.** 3 hours. Cross-listed with LME 445G.

450G **Foundations of Middle Grades Instruction.** 3 hours. Philosophy, development, organization, and curriculum of middle grades education and introduces generic teaching skills related to effective teaching.

**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.

ties 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.

624 **Seminar in Reading Problems.** 3 hours.

Covers research and descriptive literature related to specific reading problems.

**Secondary Education (Sec Ed)**

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.

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.

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.

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.

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.

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.		instructor. Current trends in family life education with emphasis on individualized instruction, team teaching and audiovisual aids and their use in improved learning.		achievement and improve student attitudes toward learning.
534	<b>Seminar in Mathematics Education.</b> 3 hours. Prerequisite: Permission of instructor. Covers newer concepts in curriculum and methods of instruction, current research and problems in mathematics education.	542	<b>Seminar in Speech Education.</b> 3 hours. Includes historical development, exploration of curricular trends and innovations and current research and problems.	699	<b>Specialist Project.</b> 6 hours.
535	<b>Seminar in Music Education.</b> 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 education thought and their implications for instruction, supervision, administration, and evaluation in music education.	543	<b>Interactive Teaching Skills.</b> 3 hours. Cross-listed with El Ed 543.	699c	<b>Maintaining Matriculation.</b> 1 to 6 hours.
537	<b>Seminar in Science Education.</b> 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.	544	<b>Classroom Teaching Strategies.</b> 3 hours. Cross-listed with El Ed 544.	444G	<b>Reading Instruction in Junior and Senior High Schools.</b> 3 hours. Principles psychology and methodologies for teaching both the general and specialized reading skills in the secondary grades.
538	<b>Seminar in Social Studies Education.</b> 3 hours. Prerequisite: Permission of instructor. Covers newer concepts in curriculum and methods of instruction as well as current research in social studies education.	545	<b>Investigations in Classroom Teaching.</b> 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.	445G	<b>Introduction to Educational Technology.</b> 3 hours. Instruction and laboratory experiences in the basic theory and application of educational technology to the design, production, evaluation, and utilization of various media. Cross-listed with LME 445G.
539	<b>Seminar in Agriculture Education.</b> 3 hours. Current problems in the organization, teaching supervision, administration, and evaluation of agricultural education programs. Investigation, papers, and reports.	580	<b>The Curriculum.</b> 3 hours. Philosophy, principles and practices of curriculum improvement.	470G	<b>Methods in Teaching Vocational Agriculture.</b> 3 hours. Course organization, methods, farming programs, employment training, and Future Farmers of America activities.
540	<b>Seminar in Home Economics Education.</b> 3 hours. Prerequisite: HE 572, or consent of	599	<b>Thesis Research and Writing.</b> 6 hours.	477G	<b>Materials and Methods in Library Science.</b> 3 hours. Prerequisites: Ed 280, Psy 220. Laboratory experiences for the prospective librarian.
		599c	<b>Maintaining Matriculation.</b> 1 to 6 hours.	484G	<b>Methods and Materials Teaching English as a Second language.</b> 3 hours. Prerequisites: Eng 469/469G, and one linguistics course. Develops skills, procedures, and strategies for teaching and utilizing commercial materials for the teaching of English as a second language. Cross-listed with Eng 470.
		604	<b>Management of the Learning Environment I.</b> 3 hours. The first of a two-course sequence designed to enable secondary teachers to utilize Mastery Learning strategies and related teaching skills to increase student achievement and improve student attitudes toward learning.		
		605	<b>Management of the Learning Environment II.</b> 3 hours. The second of a two-course sequence designed to enable secondary teachers to utilize Mastery Learning strategies and related teaching skills to increase student		

**The following 400-level Sec Ed courses may be taken for graduate credit:**



WESTERN  
KENTUCKY  
UNIVERSITY

KELLY THOMPSON  
COMPLEX  
FOR  
SCIENCE  
NORTH WING

**COLLEGE OF SCIENCE, TECHNOLOGY,  
AND HEALTH****Charles E. Kupchella, Dean****DEPARTMENTS****Agriculture****Biology****Chemistry****Computer Science****Geography and Geology****Health and Safety****Industrial and Engineering Technology****Mathematics****Physics and Astronomy****DEGREES OFFERED****Master of Science** (Agriculture, Biology, Chemistry, City and Regional Planning, Computer Science, Geography, Health, Mathematics)**JOINT DOCTORAL** (With University of Louisville)**Doctor of Philosophy** (Aquatic Biology, Fossil Fuel Chemistry)**Majors and Minors Offered Under the Master of Arts in Education****Agriculture****Biology****Chemistry****Geography****Health****Industrial Education****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**

**Luther B. Hughes, Jr., Head**

### Graduate Faculty

**Professors: E. Gray, L. Hughes Jr., G. Jones, R. Schneider, J. Worthington**

**Associate Professors: D. Coffey, J. Martin, J. Pennington, D. Stiles**

**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).

\*MPS option temporarily suspended

### Graduate Courses in Agriculture

**528 Agricultural Genetics.** 3 hours.  
 Prerequisites: Biol 327, and Ag 491 or equivalent.  
 Application of genetic and statistical concepts to populations of domestic animals and plants.

**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.

**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.

**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.

**547 Advanced Animal Nutrition.** 3 hours.  
 Prerequisite: Ag 448, Biol 446 or equivalent, or permission of instructor.  
 The individual nutrient requirements of the monogastric animals, the structure, the

metabolism and function of each nutrient class, interrelationship of the nutrient classes, deficiency and toxicity symptoms.

**551 Advanced Soil Fertility.** 3 hours.  
 Prerequisite: Ag 351 or permission of instructor.  
 Evaluation of soil fertility and fertilizers; soil-plant relationships; composition and properties of soil in relation to ion intake, nutrition and growth of plants.

**561 Agricultural Production Economics.** 3 hours.  
 Production and cost functions, programming and decision-making principles and their application to agriculture.

**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.

**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.

**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.

**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.

**597 Special Problems in Agriculture.** 1 to 3 hours.  
 Prerequisite: Permission of instructor.  
 Supervised individual study in agriculture. May be repeated to a maximum of 9 hours.

**598 Seminar.** 1 hour.  
 Problems and research in agriculture. Required of all graduate students. May be repeated to a maximum of 3 hours.

**599 Thesis Research and Writing.** 6 hours.

**599c Maintaining Matriculation.** 1 to 6 hours.

**675 Advanced Topics in Agriculture.** 1 to 3 hours.  
 Prerequisite: Permission of instructor.  
 Problems and scientific developments of current interest. May be repeated to a maximum of 10 hours with different topics.

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

**401G Landscape Plants I.** 3 hours.  
 Prerequisite: Ag 110.

## 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)

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.	niques and procedures for commercial production of ornamental and vegetable plants in the greenhouse.	Prerequisites: Ag 350, Chem 222, or permission of instructor. Analytical techniques in soil chemistry and soil fertility studies and nutrient determination; colloidal systems; chemical properties related to plant nutrition.
402G <b>Landscape Plants II.</b> 3 hours. Prerequisites: 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.	416G <b>Commercial Floriculture I.</b> 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.	451G <b>Soil Management.</b> 3 hours.
403G <b>Landscape Design and Construction.</b> 3 hours. Prerequisite: Ag 402. Design of residential and commercial landscapes. Techniques and materials for construction of landscape features such as decks, patios, pools, etc.	417G <b>Commercial Floriculture II.</b> 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.	452G <b>Soil Microbiology.</b> 3 hours.
404G <b>Landscape Maintenance.</b> 3 hours. Prerequisite: Ag 110, 401, 402. Maintenance of landscape plants including shrubs, annuals, perennials, and turf; proper use of equipment, fertilizers, and pesticides; landscape business practices.	419G <b>Vegetable Production.</b> 3 hours. Prerequisites: Ag 110, or Biol 120. Production and utilization of vegetable crops with emphasis on environmental factors influencing growth and handling of vegetables.	453G <b>Soil Formation, Classification and Mapping.</b> 3 hours. Prerequisite: Ag 350. Soil origin; methods of soil survey; classification schemes; profile description, mapping and interpretation information, with emphasis on Kentucky soils.
405G <b>Nursery Management.</b> 3 hours. Developing, planning, planting, and maintaining a modern plant nursery of container and field grown stocks of trees, shrubs, and ground covers.	421G <b>Forage Crops.</b> 3 hours. Prerequisites: Ag 110, 350, and Biol 120. Distribution, improvement, establishment, production and storage of forage crops; soil-plant-animal complex as relates to the morphology, physiology and utilization of forage.	454G <b>Land-Use Conservation.</b> 3 hours. Prerequisite: Ag 361, 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.
409G <b>Weed Science.</b> 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.	422G <b>Field Crops.</b> 3 hours. Prerequisites: Ag 110, 350, and Biol 120, or permission of instructor. Distribution, improvement, morphology, culture, harvesting, and utilization of field crops.	460G <b>Agricultural Policy.</b> 3 hours. Prerequisite: Ag 360. The place of agriculture in the national economy; objectives of agricultural policy; appraisal and proposed agricultural programs; legislation for economics action.
410G <b>Crop Protection.</b> 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.	443G <b>Physiology of Reproduction in Domestic Animals.</b> 3 hours. Prerequisite: Ag 140, or permission of instructor. Physiology and endocrinology of reproductive systems; anatomical, physiological, and biochemical basis of reproduction; artificial breeding, synchronized estrus and related topics.	461G <b>Advanced Farm Management.</b> 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.
411G <b>Turfgrass Management.</b> 3 hours. Prerequisite: Ag 110. Adaptation, identification, uses and fundamental principles for establishing and maintaining quality turf.	446G <b>Animal Breeding.</b> 3 hours. Prerequisites: Ag 140, and Biol 120. Application of genetic and statistical principles to breeding and improvement of farm animals; the role of selection in changing populations.	463G <b>Agricultural Finance.</b> 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.
412G <b>Modern Fruit Production.</b> 3 hours. Prerequisites: Ag 311, or 312, or permission of instructor. Selected problems in planting, management, production, and varieties of deciduous fruits and nuts.	448G <b>Principles of Animal Nutrition.</b> 3 hours. Prerequisite: Ag 345. Principles of nutrition basic to animal feeding, chemical and physiological aspects of nutrition, techniques in nutrition research.	468G <b>World Food Development.</b> 3 hours. Problems and opportunities in feeding an ever-increasing population. Assessment of world food production, poverty, businesses and cultures; ways of increasing production.
413G <b>Plant Propagation.</b> 3 hours. Prerequisite: Ag 312, or permission of instructor. Fundamental principles and basic techniques of plant propagation.	449G <b>Laboratory Methods and Techniques in Animal Nutrition.</b> 3 hours. Prerequisites: Ag 448, Chem 222, 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.	
414G <b>Crop Improvement.</b> 3 hours. Prerequisites: Six hours of plant science and graduate standing. Identification, development, and utilization of genetic differences in the improvement of cultivated plants.	450G <b>Soil Chemistry.</b> 3 hours.	
415G <b>Greenhouse Management.</b> 3 hours. Prerequisite: 6 hours of plant science. Structures, equipment and general tech-		

470G	<b>Agricultural Materials Handling.</b> 3 hours. Prerequisite: Ag 170, or permission of instructor. Basic principles, design options, and economic considerations for hay and grain handling systems and for silage and manure systems. Field trips as needed. (Fall)	475G	<b>Selected Topics in Agriculture.</b> 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.	491G	<b>Data Analysis and Interpretation.</b> 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.
471G	<b>Organization and Planning in Agricultural Education.</b> 4 hours. Organization and program planning for classes in post-high school vocational agriculture and technical programs for young and adult farmers.	482G	<b>Development of Agricultural Resources for Rural Recreation.</b> 3 hours. Developing facilities for recreational enterprises. Topics include enterprise selection, program planning, site selection, financing, and construction.		

## Secondary Education Course

470G	<b>Methods in Teaching Vocational Agriculture.</b> 3 hours. See course description in Sec. Ed section of this catalog.
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## DEPARTMENT OF BIOLOGY

**THOMPSON COMPLEX-NORTH WING**  
ROOM 201 (502) 745-3696

**Valgene L. Dunham, Head**

### Graduate Faculty

**Professors:** G. Dillard, V. Dunham, L. Elliott, L. Gleason, M. Houston, R. Hoyt, C. Kupchella, K. Nicely, R. Prins, F. Toman, J. Winstead

**Associate Professors:** B. Ferrell, S. Ford

**Assistant Professors:** K. Balak, C. Rinehart

**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 supportive courses in science and mathematics. 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.

### Master of Science in Biology

Due to increased emphasis on research in the biological science brought about by numerous advances in biotechnology, an increasing number of students are continuing studies at the graduate level. The M.S. degree is offered for students seeking research experience in two major areas: organismal/ecology and cell/molecular.

Courses presently offered in each area are as follows:

#### Organismal/ecology:

Bio 401G Biology of the Algae; Bio 407G Virology; Bio

408G Invertebrate Zoology; Bio 456G Ichthyology; Bio 458G Fishery Biology; Bio 459G Mammalogy; Bio 460G Parasitology; Bio 464G Endocrinology; Bio 470G Pathogenic Microbiology; Bio 472G Applied and Environmental Microbiology; Bio 485G Field Biology; Bio 515 Ecological Concepts; Bio 530 Animal Behavior; and Bio 591 Aquatic Biology

#### Cell/molecular:

Bio 400G Plant Physiology; Bio 411G Cell Biology; Bio 412G Cell Biology Lab; Bio 446G Biochemistry; Bio 447G Biochemistry Lab; Bio 450G Molecular Genetics; Bio 467G Biochemistry II; Bio 488G Nucleic Acids; Bio 495G Recombinant Gene Technology; Bio 562 Advanced Topics in Biochemistry; Bio 563 Enzymology; Bio 564 Enzymology Lab

The degree requires a thesis based upon original research conducted under the direction of a departmental graduate faculty member. A non-thesis degree option may be selected with the advise of the graduate student's committee. The research tool requirement may be satisfied by enrollment in a graduate level methodology course in agreement with the student's graduate advisor.

### 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 a minimum of 18 hours of coursework in biology, and the minor requires a minimum of 12 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 course 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. R. Prins of the Department of Biology for additional information.

## Graduate Courses in Biology

501	<b>Biological Perspectives.</b> 4 hours. Designed to acquaint graduate students with advances in the biological sciences and practical applications of biological principles. Lecture and lab. (Alternate summers)	600	<b>Internship in College Instruction.</b> 1 hour. Designed for prospective teachers of biology. Staff direction in preparing and giving lectures. Includes analyses of presentation and techniques. May be repeated.	450G	<b>Molecular Genetics.</b> 3 hours. Molecular basics of genetics and heredity of prokaryotic and eukaryotic organisms. Lecture and lab. (Fall)
515	<b>Ecological Concepts.</b> 4 hours. Essential dynamic features of plant and animal populations. Covers the theoretical and empirical aspects of single populations, or pairs of interacting populations, and of whole communities. Lecture and lab. (Alternate spring semesters)	675	<b>Advanced Topics in Biology.</b> 1 to 3 hours. Selected topics in Biology. (On Demand)	456G	<b>Ichthyology.</b> 4 hours. Prerequisites: Biol 122, 123, 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)
516	<b>Investigations in Biology.</b> 1 to 3 hours. Prerequisite: Permission of research project director. Research project completed under faculty supervision. Not applicable for thesis M.S. degree. (Every semester and summer)	799	<b>Doctoral Research.</b> 1 to 6 hours.	458G	<b>Fishery Biology.</b> 3 hours. Prerequisites: Biol 122, 123. Biological aspects of populations of freshwater fish. Emphasizes reproduction and development, food and feeding habits, population effects, etc. Lecture, 2 hours; lab, 2 hours. (Spring of odd-numbered years)
530	<b>Animal Behavior.</b> 4 hours. Comparative approach to the current understanding of physiological mechanisms involved at the organismal level in transducing environmental input into adaptive behavioral output. Lecture and lab. (Alternate spring semesters)	799c	<b>Maintaining Matriculation.</b> 1 to 6 hours.	459G	<b>Mammalogy.</b> 3 hours. Prerequisites: Biol 122, 123. Taxonomy, life history and ecology of the mammals. Laboratory work includes field studies and collection and study of specimens in the laboratory. Lecture, 2 hours; lab, 2 hours. (Fall of even-numbered years)
562	<b>Advanced Topics in Biochemistry.</b> 4 hours. Survey of metabolic processes relevant to biochemistry and the biological sciences. Topics include bioenergetics, nucleic acid metabolism, protein synthesis and metabolic regulation. Lecture and lab. (Alternate fall semesters)	400G	<b>Plant Physiology.</b> 3 hours. Prerequisites: Biol 122, 123, and two semesters of chemistry. The functioning of plant systems. Lecture, 2 hours; lab, 2 hours. (Fall of odd-numbered years)	460G	<b>Parasitology.</b> 4 hours. Prerequisites: Biol 122, 123. The morphology, physiology, life histories, control and economic significance of representative species. Lecture, 2 hours; lab, 4 hours. (Fall of even-numbered years)
563	<b>Enzymology.</b> 3 hours. See Biochemistry.	401G	<b>Biology of the Algae.</b> 4 hours. Prerequisites: Biol 122, 123. Structure, development, systematics and phylogenetic relationships of the algae with emphasis on the freshwater groups. Lecture, 3 hours; lab, 2 hours. (Fall of odd-numbered years)	462G	<b>Bioinorganic Chemistry.</b> 3 hours. See Biochemistry.
564	<b>Enzymology Laboratory.</b> 1 hour. See Biochemistry.	407G	<b>Virology.</b> 3 hours. Prerequisite: Undergraduate microbiology course. Bacterial, animal, and plant viruses with special emphasis on the chemistry and replication of bacterial viruses. (Spring of odd-numbered years)	464G	<b>Endocrinology.</b> 3 hours. Prerequisites: Biol 122, 123. Structure and function of the endocrine glands and their role in physiological communication and regulation. (Fall of odd-numbered years)
569	<b>Professional Work/Career Experience in Biology.</b> 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.	408G	<b>Invertebrate Zoology.</b> 4 hours. Prerequisites: Biol 122, 123. Phyla of invertebrate animals, including their taxonomy, morphology, physiology, development, and evolution. Lecture, 2 hours; lab, 4 hours. (Spring of odd-numbered years)	467G	<b>Biochemistry II.</b> 3 hours. See Biochemistry.
589	<b>Internship in Biology.</b> 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.	411G	<b>Cell Biology.</b> 3 hours. Prerequisites: Biol 220, 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)	470G	<b>Pathogenic Microbiology.</b> 4 hours. Prerequisites: Biol 309, 310, or 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)
591	<b>Aquatic Biology.</b> 4 hours. Physical, chemical, and biological aspects of bodies of freshwater, with emphasis on water as a biological environment. Lecture and lab. (Alternate summers)	412G	<b>Cell Biology Laboratory.</b> 1 hour. Pre/corequisite: Biol 411G. Laboratory correlated with Biol 411G. Two hours per week. (Every spring)	472G	<b>Applied and Environmental Microbiology.</b> 4 hours. Prerequisites: Biol 309, 310, or consent of instructor. The roles of microorganisms in food preservation, fermentation, spoilage, and food intoxication. Production of microbial products of industrial interest; application of modern microbiological techniques to industrial processes; interrelationships between microorganisms and their environment.
598	<b>Graduate Seminar.</b> 1 hour. Special topics in biology. (Every fall and spring)	431G	<b>Radiation Biophysics.</b> 4 hours. See the Department of Physics and Astronomy.		
599	<b>Thesis Research and Writing.</b> 6 hours.	446G	<b>Biochemistry.</b> 3 hours. See Biochemistry.		
599c	<b>Maintaining Matriculation.</b> 1 to 6 hours.	447G	<b>Biochemistry Laboratory.</b> 2 hours. See Biochemistry.		

Lecture, 3 hours; lab, 2 hours.	sessions. (Summer sessions only)	495G Recombinant Gene Technology. 3 hours. Prerequisite: Biol 450G. Laboratory emphasis involving the basic techniques of genetic engineering. Experiments include techniques required to clone DNA, recover the cloned gene, and to sequence the gene. Lecture and lab. (Spring)
<b>475G Selected topics in Biology.</b> 1 to 3 hours. Significant problems and developments of current interest in biology. (Every semester and summer)	<b>488G Nucleic Acids.</b> 3 hours. Primary and secondary structure of DNA and RNA and the mechanisms for replication, transcription, and translation. (Spring of even-numbered years.)	
<b>485G Field Biology.</b> 3 hours. Two-week camping field experience on a specific biological topic, preceded and followed by introductory and evaluative	<b>491G Data Analysis and Interpretation.</b> 3 hours. (See Department of Agriculture)	

## DEPARTMENT OF CHEMISTRY

**THOMPSON COMPLEX-CENTRAL WING  
ROOM 444 (502) 745-3457**

**Lowell Shank, Head**

### Graduate Faculty

**Professors:** C. Henrickson, R. Hessley, N. Hunter, E. Pearson, J. Reasoner, J. Riley, L. Shank, C. Wilkins

**Associate Professors:** J. Chamberlin, D. Hartman

**Assistant Professors:** D. Dahl, T. Green, R. Holman, W. Pan

**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 six interdisciplinary areas; analytical, coal, inorganic, organic, physical, or biochemistry.

Course requirements (except for coal chemistry option) are as follows:

Chem 435G Analytical Chemistry  
Chem 520 Advanced Inorganic Chemistry  
Chem 541 Advanced Organic Chemistry  
Chem 550 Advanced Physical Chemistry

Chem 581 Spectroscopy

Chem 598 Seminar

Chem 599 Thesis Research and Writing

Three courses from the following:

Chem 446G, 447G, 462G, 467G, 475G, 531, 540, 551, 562, 590, 591

Course requirements for coal chemistry option are as follows:

Chem 435G Analytical Chemistry  
Geol 480G Coal Geology  
Chem 520 Advanced Inorganic Chemistry  
Chem 541 Advanced Organic Chemistry  
Chem 550 Advanced Physical Chemistry  
Chem 581 Spectroscopy  
Chem 590 Coal Chemistry  
Chem 591 Coal Chemistry Laboratory  
Chem 598 Seminar  
Chem 599 Thesis Research and Writing

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, Russian, 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 chemistry 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.

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 fossil fuel chemistry is administered by the Departments of Chemistry of Western Kentucky University and the University of Louisville.

### Graduate Courses in Chemistry

500	<b>Fundamentals of Chemistry.</b> 3 hours. Prerequisite: Undergraduate minor in chemistry. Fundamental principles, theories, and laws of chemistry. (Not applicable to the MS degree)	action mechanisms, concerted reactions, photo-chemistry, and free-radical reactions.	
502	<b>Fundamentals of Modern Chemical Analysis.</b> 3 hours. Prerequisite: Undergraduate minor in chemistry. Modern methods of chemical analysis including an introduction to instrumental analysis. (Not applicable to the MS degree)	550 <b>Advanced Physical Chemistry I.</b> 3 hours. Prerequisite: Chem 452, Math 227, or equivalents. Covers thermodynamics, kinetics and molecular structure in preparation for graduate study or research.	591 <b>Coal Chemistry Laboratory.</b> 3 hours. Prerequisite: Chem 330, or equivalent. Analytical chemistry of coal including coal sample preparation, characterization, and analysis will be studied. Analyses as specified by the American Society for Testing and Materials (ASTM) will be emphasized. Recent developments in methods and instrumentation used in coal analysis will be studied.
503	<b>Fundamentals of Modern Chemical Analysis Laboratory.</b> 1 hour. Corequisite: Chem 502. Includes experiments using the instruments and techniques discussed in the lecture.	551 <b>Advanced Physical Chemistry II.</b> 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.	
516	<b>Investigations in Chemistry.</b> 1 to 3 hours. Review of chemical literature on topics of individual interest. Includes reports and proposals for further research.	562 <b>Advanced Topics in Biochemistry.</b> 4 hours. See Biochemistry.	596 <b>Cooperative Research I.</b> 11 hours. Prerequisite: Student must have completed one academic year of coursework in Chemistry. Research at a cooperating laboratory leading to a thesis in chemistry.
520	<b>Advanced Inorganic Chemistry I.</b> 3 hours. Prerequisites: Chem 420, 452, or equivalent. Various aspects of coordination chemistry.	569 <b>Internship in Chemistry I.</b> 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.	597 <b>Cooperative Research II.</b> 11 hours. Prerequisite: Student must have completed one academic year of the coursework in Chemistry. Research at a cooperating laboratory leading to a thesis in coal chemistry.
521	<b>Advanced Inorganic Chemistry II.</b> 3 hours. Prerequisite: Chem 520, or permission of instructor. Current theories of inorganic reaction mechanisms.	570 <b>Lecture Demonstration Techniques.</b> 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)	598 <b>Graduate Seminar.</b> 1/2 hour. Required each semester for all MS-Chem students.
531	<b>Advanced Analytical Chemistry.</b> 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.	580 <b>Chemical Skills.</b> 3 hours. Skills in the use of the library, glass working, and the laboratory.	599 <b>Thesis Research and Writing.</b> 6 hours.
540	<b>Organic Reactions.</b> 3 hours. Prerequisite: Permission of instructor. Modern synthetic methods used in organic chemistry.	581 <b>Spectroscopy.</b> 3 hours. Prerequisites: Chem 342, and 452 or 550. Application of nuclear magnetic resonance, ultraviolet, infrared and mass spectrometry to solving chemical structures.	599c <b>Maintaining Matriculation.</b> 1 to 6 hours.
541	<b>Advanced Organic Chemistry II.</b> 3 hours. Prerequisites: Org Chem 342, and Phys Chem 452. Modern physical-organic chemistry including bonding, stereochemistry, re-	589 <b>Internship in Chemistry II.</b> 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.	799 <b>Doctoral Research in Chemistry.</b> 1 to 6 hours.
		590 <b>Coal Chemistry.</b> 3 hours. Prerequisites: Chem 342, 452, or equivalent.	799c <b>Maintaining Matriculation.</b> 1 to 6 hours.

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

412G **Introduction to Physical Chemistry.** 5 hours.  
Prerequisites: Chem 330, Math 118.  
Chemical principles involved in thermodynamics, kinetics, molecular structure, and other topics using biological examples. Specifically for secondary education students and

	those students not qualifying for the Chem 450-452 sequence. Lecture, 3 hours; lab, 2 hours. Lab meets 4 1/2 hours per week (Fall). (Not applicable to MS degree).	Prerequisites: Chem 452-453. Modern instrumental methods of analysis including spectroscopic, electroanalytical and chromatographic techniques.	470G <b>Chemistry for the "Middle School."</b> 4 hours. Prerequisite: Chem 108, or 123, or permission of instructor. Chemical theories and principles in the middle school science curricula. (Elective credit only)
420G	<b>Inorganic Chemistry.</b> 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. (Not applicable to MS degree).	446G <b>Biochemistry.</b> 3 hours. See Biochemistry.	
430G	<b>Forensic Chemistry.</b> 3 hours. Methods and instrumentation used in the crime laboratory and in the medical technology laboratory. Topics include drugs, blood enzymes, organic and inorganic analysis, etc.	447G <b>Biochemistry Laboratory.</b> 2 hours. See Biochemistry.	475G <b>Advanced Topics in Chemistry.</b> 1 to 3 hours. Topics in analytical, biochemical coal, in- organic, organic, physical and polymer chemistry. May be repeated with different topic.
432G	<b>Modern Methods of Chemical Analysis.</b> 3 hours. Methods and instrumentation used in modern chemical analysis, with emphasis on application rather than theory. (Not applicable to the MS degree)	450G <b>Physical Chemistry I.</b> 3 hours. (Not applicable to MS degree)	476G <b>Advanced Laboratory Investigations in Chemistry.</b> 2 hours. Prerequisite: Chem 314, or 343. A course for advanced students involving assigned laboratory work in the field of inorganic chemistry. Typical procedures and experiments are those involving the synthesis, characterization, and identification of various chemical compounds, using a variety of handling techniques, and the application of various physical methods. (Not applicable to M.S. Degree).
435G	<b>Analytical Chemistry.</b> 4 hours.	451G <b>Physical Chemistry Laboratory.</b> 2 hours.	
		452G <b>Physical Chemistry II.</b> 3 hours. (Not applicable to MS degree)	
		453G <b>Physical Chemistry Laboratory.</b> 2 hours.	
		462G <b>Bioinorganic Chemistry.</b> 3 hours. See Biochemistry.	
		467G <b>Biochemistry II.</b> 3 hours. See Biochemistry.	

## BIOCHEMISTRY

**THOMPSON COMPLEX  
CENTRAL WING  
(502) 745-3457**

### Graduate Faculty

**Professors: V. Dunham, M. Houston**

**Associate Professor: D. Hartman**

**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 Department 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.**

### Graduate Courses in Biochemistry

**562 Advanced Topics In Biochemistry. 4 hours.**

Survey of metabolic processes relevant to biochemistry and the biological sciences. Topics include bioenergetics, nucleic acid metabolism, protein synthesis and metabolic regulation. Lecture and lab. (Alternate fall semesters)

**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)

**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 on 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)

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

**411G Cell Biology.** 3 hours. See Department of Biology.

**412G Cell Biology Laboratory.** 1 hour. See Department of Biology.

**446G Biochemistry.** 3 hours.

Prerequisite: Chem 314, or 340. Biochemical compounds and their role in metabolism. Lecture. (Fall, spring)

## DEPARTMENT OF COMPUTER SCIENCE

THOMPSON COMPLEX-CENTRAL WING  
ROOM 137-A (502) 745-4642

Kenneth L. Modesitt, Head

Professors: T. Cheatham, R. Crawford, J. Crenshaw, K. Modesitt

Associate Professors: A. Shindhelm

Degree Offered: Master of Science in Computer Science

This program is designed to provide post-graduate education for individuals seeking professional careers in computer science. Areas of emphasis are information systems, systems programming, and algorithms.

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 8 hours 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 coursework 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 476G Research Methods and Projects. No credit earned in meeting the research tool requirement will apply toward hours required for the degree.

## Specific degree requirements are as follows:

- A. CS 442G Information Structures  
CS 443G Data Base Management Systems  
CS 445G Operating Systems II  
CS 541 Mathematical Foundations of Computer Science  
CS 543 Computer Information Systems Design  
CS 544 Compiler Theory and Design
- B. Two elective computer science courses and two elective courses from computer science or a cognate area approved by the graduate advisor.
- C. A minimum of four 500-level computer science courses. (A total of five 500-level courses must be included on the program of study to meet Graduate College requirements as stated above.)

If any of the required courses have been completed for undergraduate credit, electives will be substituted.

## Graduate Courses in Computer Science

541	<b>Mathematical Foundations of Computer Science.</b> 3 hours. Topics of fundamental importance to computer science, graph theory, algebraic structures, combinatorial analysis.	549	<b>Analysis of Algorithms.</b> 3 hours. Prerequisite: CS 442. Methods (algorithms) for solving a variety of problems on computers and the relative efficiency of these algorithms.	442G	<b>Information Structures.</b> 3 hours. Prerequisite: CS 338. Arrays, lists, trees, storage and file structures, sorting and searching techniques, dynamic storage allocation and garbage collection algorithms, structures, pointers, bit and character strings, list processing, recursive programming for tree processing.
543	<b>Computer Information Systems Design.</b> 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.	567	<b>Micro-computer Operating Systems.</b> 3 hours. Prerequisite: CS 442 System-level study of the most popular micro-computer operating systems including memory and disk space management; interrupts; and system services. System utility programs will be developed.	443G	<b>Data Base Management Systems.</b> 3 hours. Prerequisite or corequisite: CS 442. Design and implementation of data base management systems; data organization and management; survey of several systems; assigned projects will require use of several established systems.
544	<b>Compiler Theory and Design.</b> 3 hours. Prerequisites: CS 442, 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.	595	<b>Advanced Topics in Computer Science.</b> 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.	444G	<b>Programming Languages.</b> 3 hours. Prerequisite: CS 242, or permission of instructor. Survey of procedure-oriented and special-purpose languages. Emphasis on the syntactic and semantic structures present in these languages.
545	<b>Advanced Operating Systems Principles.</b> 3 hours. Prerequisite: CS 445. Theoretical and practical material on operating systems. Examines system optimization, resource protection, multiprocessing, performance evaluation, and existing operating systems. The student develops a small operating system.	599	<b>Thesis Research and Writing.</b> 6 hours.	445G	<b>Operating Systems II.</b> 3 hours. Prerequisite: CS 425. Examination of how an operating system sits on a computer architecture. Student will use the privileged instruction set of a specific architecture to write their own simple operating systems or operating system modules. Also, theory of bootstrap loading, memory protection and management, etc.
		599c	<b>Maintaining Matriculation.</b> 1 to 6 hours.		
			<b>The following 400-level CS courses may be taken for graduate credit:</b>		
		405G	<b>Numerical Analysis I.</b> 3 hours. Prerequisites: Math 327, CS 240. Cross-listed with Math 405G.		
		406G	<b>Numerical Analysis II.</b> 3 hours. Prerequisites: CS 405, and Math 331. Cross listed with Math 406G.		

446G	<b>Interactive Computer Graphics.</b> 3 hours. Prerequisites: Math 307, or corequisite CS 442, or consent of the instructor. 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.	gram required.	
447G	<b>System Simulation.</b> 3 hours. Prerequisites: CS 241, and Math 203. 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 pro-	448G	<b>Structured Systems Analysis.</b> 3 hours. Prerequisites: CS 442, 443. The structured computer systems development process with emphasis on data requirements, external data file design, and computer process flow.
456G	<b>Artificial Intelligence.</b> 3 hours. Prerequisite: CS 442. Problems having no plausible algorithmic solution, their computer representations and solutions which usually involve heuristics.	458G	<b>Expert Systems.</b> 3 hours. Prerequisite: CS 456, or equivalent. Expert systems with respect to uses, areas of appropriateness, and com-
			ponent parts. Student will design and implement an expert system.
475G	<b>Selected Topics in Computer Science.</b> 1 to 3 hours. Prerequisite: Permission of instructor. Significant problems and developments in computer science.	476G	<b>Research Methods and Projects in Computer Science.</b> 3 hours. Prerequisite: CS 442. Analysis and design of computer based systems. Design techniques are applied in one or more large-scale programs requiring attention to documentation, communications, and interfacing of modules in a team project. May be repeated for 6 hours.

## 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, N. Fields, E. Hegen, W. Hoffman, M. Lowry, A. Petersen, R. Seeger

**Associate Professors:** K. Kuehn, C. Moore, M. Trapasso

**Assistant Professor:** S. Foster

**Degrees Offered:** Master of Science in Geography, Master of Arts in Education (Geography major or minor), Master of Science in City and Regional Planning.

The graduate programs in geography and city and regional planning 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, air photo interpreters, and similar consulting positions in business and industry.

Applicants for the Master of Science in Geography and in City and Regional Planning 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 1150 or above (verbal, quantitative, and analytical 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 required 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 an appropriate research technique.

Individual student programs may be designed to emphasize mapping, remote sensing, hydrology and geomorphology, meteorology, and climatology, resource management, planning 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 Science in City and Regional Planning

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 program 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 Science in City and Regional Planning are required to complete a minimum of 9 hours of core coursework--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 Sector Organizations  
 Psy 551 Social Psychology of Organizations  
 Soc 562 Formal Organizations

B. Socio-Economic and Political Factor Courses--6 hours  
 Geog 484G \*Planning: Theory and Application  
 Govt 510 Problems in National Government  
 Govt 511 Seminar in State Government  
 Soc 542 Community

\*Required for the City and Regional Planning Program

Individual programs are planned in accordance with specific needs of the student. A research tool is required. The thesis is optional.

**Required courses within the 36-hour minimum:**

Geog 500 Introduction to Research  
 Geog 580 Problems in Urban Geography  
 Geog 584 Advanced Planning  
 Geog 595 Planning Practicum

**Graduate Courses in Geography**

500	<b>Introduction to Geographic Research.</b> 3 hours. Development of geographic research skills with emphasis on posing of research problems, documentation, organization, and presentation.	525	new developments and applications.	571	<b>Quality of Life, Environmental Problems and Ecological Solutions.</b> 3 hours. Seminar approach to developing critical ecological sensitivity through analysis of past and present environmental problems, implemented and alternative solutions.
501	<b>Geography, Science, Civilization.</b> 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.	530	<b>Selected Problems in Cultural Geography.</b> 3 hours. Prerequisite: Geog 430, or permission of instructor.	580	<b>Problems in Urban Geography.</b> 3 hours.
502	<b>Geographic Techniques for Field Investigations.</b> 3 hours.	532	<b>Studies in Geographic Exploration.</b> 3 hours. Eighteenth, 19th, and 20th century scientific exploration of the "terrae incognitae" through examination of firsthand accounts.	584	<b>Advanced Planning.</b> 3 hours. Prerequisite: Geog 484. Analysis of advanced topics and results of recent research in city and regional planning.
504	<b>Historical and Philosophical Bases of Geography.</b> 3 hours. The evolution of geography as a distinct discipline through study of the writings of outstanding scholars.	534	<b>Historic Preservation Planning: Application.</b> 3 hours. Prerequisite: Geog 434G. Field application of historic preservation method and techniques.	585	<b>Advanced Studies in Population Geography.</b> 3 hours. Prerequisites: Geog 485, and permission of instructor. Seminar approach to regional and world problems in human population.
505	<b>Biogeography.</b> 3 hours. Prerequisites: Introductory courses in geography and/or biology, and permission of the instructor. The evolutionary, geographical, ecological, pedological, and edaphic factors involved in the naturalization, acclimatization, and distribution of plant and animal life.	540	<b>Advanced Regional Geography.</b> 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.	590	<b>Experimental Design and Data Analysis.</b> 3 hours. Prerequisite: Geog 491, or permission of instructor. (Cross-listed with Agricul- ture 590) Statistical consideration in experimental design: Covariance, multiple regression, factorial design, incomplete block designs, etc.
510	<b>Selected Topics in Geography.</b> 3 hours. Topics will vary with student needs.	541	<b>Seminar in Tropical Geography.</b> 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.	595	<b>Planning Practicum.</b> 3 to 6 hours. Prerequisites: Geog 484, 584, and permission of instructor. Supervised planning experience in a cooperating government or private agency.
521	<b>Advanced Studies in Geomorphology.</b> 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.	550	<b>Advanced Studies in Economic Geography.</b> 3 hours. Prerequisites: Geog 250, 478 or 479, and permission of instructor. An examination of the major theories in economic geography.	599	<b>Thesis Research and Writing.</b> 6 hours.
522	<b>Advanced Studies in Climatology.</b> 3 hours. Prerequisites: Geog 422, and permission of instructor. The effects of climatic controls on microclimates and climatic anomalies. Detailed use of environmental characteristics, i.e., rainfall patterns, etc.	560	<b>Settlement Geography.</b> 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.	599c	<b>Maintaining Matriculation.</b> 1 to 6 hours.
524	<b>Meteorology for Science Teachers.</b> 3 hours. Basic weather course with emphasis on			402G	<b>Physiography of North America.</b> 3 hours. Prerequisites: Geog 106 and 108, or Geol 102 or 111, and 113.
				404G	<b>Computer Mapping.</b> 3 hours. Geographic information systems and computer mapping programs. Introduction to the graphics terminal,

**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 Geol 102 or 111, and 113.

404G **Computer Mapping.** 3 hours.  
 Geographic information systems and computer mapping programs. Introduction to the graphics 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.	Prerequisites: Geog 121, 422, or permission of instructor. Practical insight into influences of meteorology and climatology on man. Problems of the physical environment caused by what man has done or will do to weather/climate patterns of the world.	Prerequisite: Geog 350, or permission of instructor. Manufacturing and commercial activities and facilities related to assembling of raw materials and distribution of products.
410G <b>Cartography II.</b> 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.	484G <b>Planning: Theory and Application.</b> 3 hours. Planning theory, practice, and organizational structure.
415G <b>Air Photo Interpretation.</b> 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)	430G <b>Cultural Geography.</b> 3 hours. Concepts of culture and the interaction between various cultures and their environments.	488G <b>Rural Planning.</b> 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.
416G <b>Remote Sensing: Principles and Applications to Environment, and Planning.</b> 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.	434G <b>Historic Preservation Planning: Principles and Practices.</b> 3 hours. Historic preservation methodology and practice as related to urban, small town, and rural neighborhoods. Includes historic preservation law and impact statements.	491G <b>Data Analysis and Interpretation.</b> 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)
420G <b>Geomorphology.</b> 4 hours. Prerequisites: Geog 100, Geol 102, 111, and 113. The origin, history, and characteristics of landforms produced by fluvial, glacial, wind and wave erosion and by mass-wasting and ground-water.	451G <b>Geography of Kentucky.</b> 3 hours. Regional study assessing the natural and human resources with special attention to current ecological, social, and economic problems.	The following graduate course, specially designed for teachers of natural and earth science, is offered in Geology:
421G <b>Advanced Geomorphology.</b> 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; hillslope characteristics; drainage pattern evolution, etc.	452G <b>Field Studies in Geography.</b> 3 hours.	511 <b>The Dynamic Earth.</b> 3 hours. Prerequisites: Geol 102, 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.
422G <b>Climatology.</b> 4 hours. Prerequisites: Geog 100, 101, 105. The elements of climate and their world distribution with emphasis on the climatic controls.	453G <b>Geography of the Soviet Union.</b> 3 hours.	The following 400-level Geology courses may be taken for graduate credit:
423G <b>Transportation Planning.</b> 3 hours. The problems of interaction, diffusion and information transfer as they appear in a spatial context.	462G <b>Geography of South America.</b> 3 hours. Prerequisite: Geog 101 or permission of instructor.	405G <b>Paleontology.</b> 4 hours.
424G <b>Weather Analysis and Forecasting.</b> 3 hours. Prerequisites: 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.	464G <b>Geography of Europe.</b> 3 hours. Prerequisite: Geog 101, or permission of instructor.	Prerequisites: Geol 112, 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.
425G <b>Political Geography.</b> 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.	465G <b>Geography of Asia.</b> 3 hours. Prerequisite: Geog 101, or permission of instructor.	415G <b>Environmental Geology.</b> 3 hours. Prerequisites: 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.
426G <b>Applied Meteorology/Climatology.</b> 3 hours.	466G <b>Geography of Africa.</b> 3 hours. Prerequisite: Geog 101, or permission of instructor.	420G <b>Geomorphology.</b> 3 hours. Prerequisites: Geol 102 or 111, and 113.
467G <b>Geographic survey, assessing the relationships of the physical and cultural patterns to actual and potential economic development.</b>	468G <b>Geography of the Middle East.</b> 3 hours. Various aspects of the sequester occupancy of Southwestern Asia and surrounding regions mentioned in the Bible.	
479G <b>Industrial and Commercial Geography.</b> 3 hours.		

Origin, history, and characteristics of landforms produced by fluvial, glacial, wind and wave erosion, and by mass-wasting and ground water.	characteristics and relationships of sedimentary strata including stratigraphic principles and practice.	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.)
<b>421G Advanced Geomorphology.</b> 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.	<b>465G Geophysics.</b> 3 hours. Prerequisites: Geol 111, and one year of college physics, or instructor's 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.	<b>475G Special Topics in Geology.</b> 3 hours.
<b>440G Hydrogeology.</b> 3 hours. Origin, occurrence and movement of ground water; wells and aquifer evaluations; quality of ground water supplies; legal aspects.	<b>467G Exploration Geophysics.</b> 3 hours. Fundamentals of general geophysics and practical experience in the major methods of exploration geophysics, such as gravity, magnetic, seismic, and electrical methods.	<b>480G Coal Geology.</b> 3 hours. Origins, characteristics, and occurrences of coal and coal-bearing strata. Topics include sample description, relationships between depositional environment, and coal characteristics, techniques in coal prospects. Field trip required.
<b>450G Stratigraphy-Sedimentology.</b> 3 hours. Prerequisites: Geol 330, 405. Origin, characteristics, occurrence and classification of sedimentary rocks;	<b>470G Tectonics.</b> 3 hours. Prerequisite: Geol 308.	<b>482G Coal Petrology and Technology.</b> 3 hours. Prerequisite: Geol 480, or Chem 305. Coal characteristics including microscopical analysis of macerals and minerals, field and lab descriptions of coal, coalification, and coal quality relative to utilization. Field trip required.

## DEPARTMENT OF HEALTH AND SAFETY

### SCIENCE AND TECHNOLOGY HALL ROOM 412 (502) 745-4797

**J. David Dunn, Head**

#### Graduate Faculty

**Professors: R. Baum, D. Dunn, C. Higgins, G. Lohr, J. Price**

**Associate Professors: R. Biggerstaff, E. Meyers, T. Nicholson, N. Schira, R. Wilson**

**Assistant Professor: T. Syre**

**Degrees Offered:** Master of Arts in Education (Health 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, and (3) administrators and supervisors of school health programs. The applicant must hold a valid teaching certificate and have a minimum of a minor in health. Applicants who hold a valid teaching certificate but have not completed a recognized minor in health may be conditionally admitted if they have completed a minimum of 12 semester hours of undergraduate coursework in health 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 health professionals (e.g., public health educators, nurses, environmentalists, administrators, industrial health personnel, 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 hours in health--including Community Health 520, Health Education 545, and 567, and Safety 570. Both Plan A (thesis) and Plan B (non-thesis) are available. For a minor in health students must complete a minimum of 12 hours in health, including Health Education 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 Science in Health (Public Health)

Candidates for the MS in Health must complete 33 hours of coursework consisting of the core of 18 hours: Community Health 481G, 520, 582, 583, and 599 (thesis) or 546 (internship); the research tool, Community Health 501; and 12 hours of electives which must be taken in one of the six fields of specialization: public health education, health services, administration, environmental health, community nutrition, or gerontology. All elective coursework must be approved by the graduate advisor prior to enrollment.

## Graduate Courses in Health and Safety

### Community Health (CH)

#### 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 Community Health. 1 to 6 hours.

Research problems or projects in the area of community health.

#### 546 Graduate Internship. 1 to 6 hours.

Supervised, full-time experience in a facility or agency approved by the Department of Health and Safety. A maximum of six hours may be earned.

#### 580 History and Philosophy of Public Health. 3 hours.

Development and scope of public health within a 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 of graduate level statistics.

Applications of epidemiological principles to representative occurrences of communicable and noncommunicable disease. Emphasizes problem solving and interpretation.

#### 583 Public Health Administration. 3 hours.

Advanced concepts of organization, administration and management of public health agencies and programs.

#### 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.

#### 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.

#### 588 Seminar in Public Health. 3 hours.

Current issues in public health.

#### 590 Public Health Law. 3 hours.

The judicial system and the development, enactment and enforcement of laws as

they relate to public health.

#### 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:

#### 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.

#### 481G Environmental Factors of Health Problems. 3 hours.

Prerequisites: HISf 384, 3 hours of Biol, and 3 hours of Chem.

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.

### Health Care Administration (HCA)

#### 530 Independent Investigations in Health Care Administration. 1 to 6 hours.

Research problems or projects in the area of health care administration.

#### 540 Health Care Organization and Management. 3 hours.

Organization and management principles, theories and practices in the health care environment. The U.S. health care system, the administrator as a leader, and issues that include facilities operations and evaluation, health administration research, and health law.

#### 541 Health Care Marketing Principles and Practices. 3 hours.

Marketing principles, theories, and practices in the health care environment. Structured opportunities to study health care marketing literature and to develop skills in marketing plan development.

#### 542 Health Care Human Resources Administration. 3 hours.

Principles and practices of Human Resources Administration in the health care field. The unique characteristics of professional, technical, skilled and unskilled health care workers explored and emphasized.

#### 544 Health Care Systems Administration. 3 hours.

The systems approach to effective and efficient delivery of health services. Analysis and evaluation of health care delivery system components. Decision making in health care organizations.

#### 546 Graduate Internship. 1 to 6 hours.

Supervised, full-time experience in a facility or agency approved by the

Department of Health and Safety. A maximum of six hours may be earned.

#### 584 Health Planning. 3 hours.

Concepts and methods of health planning with emphasis on the "certificate of need" requirement and program evaluation.

#### 586 Health Economics. 3 hours.

Economic principles applied to the study of health care facilities, health services and manpower.

### These 400-level courses may be taken for graduate credit:

#### 441G Health Policy and Law. 3 hours.

Examination of the judicial system, legislative process, and the development, enactment and enforcement of laws as they relate to the delivery of health care and the health care industry.

#### 445G Health Care Finance. 3 hours.

Introductory course in the methods of financing the delivery of health care services in the U.S. Includes budgetary methods and financial management techniques for controlling service costs to both provider and consumer.

### Health Education (HE)

#### 530 Independent Investigations in School Health. 1 to 6 hours.

Research problems or projects in the area of school health.

#### 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.

#### 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.

### These 400-level courses may be taken for graduate credit:

#### 443G Health Problems of the Aged. 3 hours.

Prerequisite: HISf 260. Covers ecological factors affecting human health and longevity, current health problems, and research on health and disease as they relate to the aged.

#### 444G Death Education. 3 hours.

Man's relationship to death and dying, coming to terms with eventual death, coping with death of loved ones and with fear of death. Includes suicide prevention. Field trips required.

447G	<b>Human values and the Health Sciences.</b> 3 hours. Analysis of the difficult ethical, legal, and social dilemmas confronting the health care delivery system, patients, medical practitioners, and other health care professionals in contemporary American society.	Prerequisite: HISft 260. 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.	570	<b>School and Community Safety Programs.</b> 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.
460G	<b>School and Community Health Workshop.</b> 3 hours. Prerequisite: Permission of instructor. Emphasizes the coordination of school and community health programs and personnel in seeking solutions for health problems.	465G <b>Health and Safety in the Elementary School.</b> 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.		<b>These 400-level courses may be taken for graduate credit:</b>
461G	<b>School Health Organization.</b> 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.	469G <b>Critical Issues in Health and Safety.</b> 3 hours. Prerequisites: HI 260, 361. Research and discussion of specific local, national, and world wide health and safety problems.	470G	<b>Driver Education and Traffic Safety II.</b> 3 hours. Prerequisite: Sft 370. Management of classroom and laboratory phases of the high school driver and traffic safety education program. Emphasizes simulation and range programs.
462G	<b>Folk Medicine.</b> 3 hours. Historical circumstances, associations, and logic of traditional non-scientific medical practices.		471G	<b>Advanced Studies in Driver Education.</b> 3 hours. Prerequisite: Sft 470. Advanced instructional technology to meet the needs of the driver and safety education program. Emphasizes behavioral approaches to traffic safety education.
463G	<b>Consumer Health.</b> 3 hours.	<b>Safety (SFTY)</b>		
530	Independent Investigations in Safety. 1 to 6 hours. Research problems of projects in the area of safety.			

## DEPARTMENT OF INDUSTRIAL AND ENGINEERING TECHNOLOGY

### ENVIRONMENTAL SCIENCE AND TECHNOLOGY BUILDING ROOM 205 (502) 745-3251

Boyce Tate, Head

#### Graduate Faculty

**Professors:** F. Conley, F. Pittman, J. Russell, D. Wendt

**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 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 lead-

ing to modern practices in industrial, vocational, and technical education.

525 **Industrial Education Curriculum.** 3 hours. Curriculum practices, concepts, and trends in curriculum development and improvement of programs.

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 a minimum of 18 hours and the minor requires a minimum of 12 hours of industrial education courses. The remaining hours, in both cases, will be taken in professional education courses.

#### Specialist in Education (See Secondary Education)

**The following 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 in Industrial Education:**

410G **Industrial Arts Problems.** 3 hours.  
Prerequisite: Graduate standing.  
Individual study and/or research in industrial education.

439WG **Workshop in Industrial Education.** 3 hours.  
Prerequisite: Graduate standing.  
Special short course on problems in industrial education and technology.

452G **Industrial Wood Processing II.** 3 hours.  
Prerequisite: MT 103, or 340.  
The setup and use of woodworking machines. Includes tooling, jig and fixture design, and the mass production of wood products. Field trips.

465G **Industrial Arts for Elementary Teachers.** 3 hours.  
Prerequisite: Graduate standing.

Philosophy, purposes, organization and correlation of industrial arts activities as they apply to the elementary school program.

495G **Acoustic Guitar Construction.** 4 hours.  
Prerequisite: MT 103, 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.

**The following 400-level courses in Environmental Engineering Technology may be taken for graduate credit:**

410G **Water Treatment Processes.** 3 hours.  
Prerequisite: Env. ET 280 or equivalent; corequisite: Env. ET 415/415G.  
Design and operational characteristics of unit processes in water and wastewater treatment; fundamentals of water chemistry pertaining to chemical, biological, and physical treatment.

415G **Water Quality Laboratory.** 3 hours.  
Prerequisite: Env. ET 280, or equivalent; corequisite: Env. ET 410/410G.  
Determination of water quality characteristics, pertinent to water and wastewater treatment.

430G **Radiological Health.** 3 hours.  
Prerequisite: Permission of instructor.  
This course includes the fundamentals of atomic, nuclear and radiation physics related to radiological health. Fundamentals of detection of ionizing radiation, including X and gamma radiations, alpha and beta particles and neutrons are covered. Counting techniques, statistics, radiation interaction, biological effects, radiation hazards (maximum permissible concentration and dose) and radioactive waste disposal are integrated into lecture and laboratory exercises. Lecture.

440G **Industrial Hygiene.** 3 hours.  
Prerequisite: Permission of instructor.  
This course presents the fundamental principles of occupational health and the recognition, evaluation and control of occupational health hazards. The course agenda includes lectures, demonstrations and field trips on such topics as the

Occupational Safety and Health Act, 1970; industrial health hazards; reaction of the respiratory system to particular gasses; mode of action of organic and inorganic chemicals such as lead and mercury; pneumoconiosis; noise measurement and control; evaluation of heat stress; electromagnetic spectrum; ionizing radiation; industrial ventilation; and instrumental methods such as X-ray diffraction; gas chromatography and atomic absorption. Lecture.

460G **Environmental Impact Assessment.** 3 hours.  
Assessing environmental impact of proposed actions including atmospheric, hydrologic, and socioeconomic impact assessment methodologies. Decision making will also be emphasized.

470G **Industrial Waste Treatment.** 3 hours.  
Prerequisite: Permission of instructor.  
Studies of the characteristics and composition of wastes from industrial processes and their effects on the environment. Methods of sampling and analysis of industrial waste and remedial measures for treatment and disposal are covered. Unit operations and processes are included in remedial measures.

475G **Selected Topics.** 1 to 3 hours.  
Prerequisite: Permission of instructor.  
Consider current problems and development in engineering technology. Specific topics vary each semester.  
(Fall, Spring)

480G **Solid Waste Treatment.** 3 hours.  
Prerequisite: Permission of instructor.  
This course is a study of the extent and characteristics of the solid waste problem. Both current practice and new developments in the management of solid waste are presented. Lectures are supplemented by field trips and guest and student presentations. The course includes physical and chemical composition of refuse, cost of refuse disposal, collection methods, and disposal methods such as sanitary landfill, incineration, composting, salvage and reclamation. The public health significance of solid waste management is emphasized. Lecture.

**DEPARTMENT OF MATHEMATICS**

**THOMPSON COMPLEX-CENTRAL WING  
ROOM 357 (502) 745-3651**

**Robert C. Bueker, Head**

**Graduate Faculty**

**Professors: J. Barksdale, W. Jones, G. Powers, J.**

**Stokes, K. Wallace, C. Wells**

**Associate Professors: B. Brunson, P. Lowman**

**Assistant Professors: N. Iraniparast, T. Richmond, J. Spraker, B. Zoeller**

**Degrees Offered:** Master of Science in Mathematics, Master of Arts in Education (Mathematics major or minor, Math Science Area major).

Applicants for departmental programs must have the appropriate background in mathematics. 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:

A. Math 417G, 431G, 432G, 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: 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.

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 secondary 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 mentioned 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.

### Graduate Courses in Mathematics

500	<b>Readings In Mathematics.</b> 1 to 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.	probability. Introduction to Markov chains; random variables, distributions, transformations. Limit theorems and various modes of convergence.	535	<b>Advanced Applied Mathematics I.</b> 3 hours. Prerequisites: Math 331, 431. Eigenvalue and boundary value problems; orthogonal expansions in function spaces; classical polynomials; Sturm-Liouville theory; Fourier and Laplace transforms.	
517	<b>Topics from Algebra.</b> 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.	530	<b>Mathematical Statistics II.</b> 3 hours. Prerequisite: Math 529. Statistical inference. Point estimates and their properties; Bayes estimates; Cramer-Rao inequality; interval estimates; hypothesis testing; linear models; analysis of variance; non-parametric inference.	536	<b>Advanced Applied Mathematics II.</b> 3 hours. Prerequisite: Math 535. Integral equations; calculus of variations; maximization of linear functionals; maximum gradient method.
523	<b>Topics from Geometry.</b> 3 hours. Prerequisite: Undergraduate geometry and permission of instructor. Geometry of special lines and points; isometries; similarities; inversion; applications.	531	<b>Advanced Differential Equations.</b> 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.	539	<b>Topology II.</b> 3 hours. Prerequisite: Math 439. Homotopy; homology theory.
529	<b>Mathematical Statistics I.</b> 3 hours. Prerequisites: Math 431 or Math 327, and permission of instructor. Axiomatic development of the theory of	532	<b>Real Analysis.</b> 3 hours. Prerequisite: Math 432. Function spaces, additive set functions; outer measure; measurable functions; integration.	550	<b>Complex Analysis.</b> 3 hours. Prerequisites: Math 432, 450. Analytic continuation; conformal mapping; Riemann surfaces; and univalent functions.
				560	<b>Functional Analysis.</b> 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.  
Prerequisites: Math 432, 470, or consent of instructor.

Specific area(s) of operations research.

**590 Special Topics in Mathematics.** 3 hours.  
Prerequisite: Permission of instructor.

**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.

**These 400-level math courses may be taken for graduate credit:**

**403G Geometry for Elementary Teachers.** 3 hours.  
Prerequisites: Math 211, 212, or equivalent.  
Contemporary topics including symmetry, translations, the metric system, etc. (For elementary or middle school education majors only).

**405G Numerical Analysis I.** 3 hours.  
Prerequisites: Math 327, CS 245-Fortran, or equivalent.  
Roots of equations, linear operators, polynomial approximation, interpolation, numerical differentiation and integration. Algorithmic computer solutions of problems will be required.

**406G Numerical Analysis II.** 3 hours.  
Prerequisites: Math 331, 405.  
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.

**411G Problem Solving for Elementary and Middle School Teachers.** 3 hours.  
Prerequisites: CS 230, Math 403, or permission of instructor.  
Integration of concepts developed in algebra, geometry, computer science, logic, statistics, probability, and elementary number theory. Students will be encouraged to use various problems solving strategies and models and to create related problems of their own.

**413G Algebra and Computing for Elementary Teachers.** 3 hours.  
Prerequisite: Math 212 or equivalent.  
Algebraic properties and relationships of our number systems, algebraic functions, introduction to computing including programming in BASIC, applications of computing in algebra.

**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, statistical inference; point and interval estimation, properties of estimators; hypothesis testing; regression and correlation; analysis of variance; and non-parametric methods.

**431G Intermediate Analysis I.** 3 hours.  
Prerequisite: Math 317.  
Sequences; continuity; elementary topological concepts; series.

**432G Intermediate Analysis II.** 3 hours.  
Prerequisite: Math 431.  
Sequences and series of functions; Riemann-Stieltjes Integrals; Elementary functional analysis: Introduction to Hilbert and Banach Spaces.

**435G Partial Differential Equations.** 3 hours.  
Prerequisites: Math 331, 327.  
Equations of first and second order; elliptic, hyperbolic and parabolic equations of mathematical physics using separation of variables and Fourier series.

**439G Topology.** 3 hours.  
Prerequisite: Math 317 or permission of instructor.  
Topological spaces; mappings; separation of axioms; compactness; connectedness; arcwise connectedness; metric spaces.

**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.

**475G Selected Topics in Mathematics.** 1 to 3 hours. Prerequisite: Permission of instructor. Significant problems and developments of current interest.

**DEPARTMENT OF PHYSICS AND ASTRONOMY**

**THOMPSON COMPLEX-CENTRAL WING**  
**ROOM 246 (502) 745-4357**

**Thomas P. Coohill, Head**

**Graduate Faculty**

**Professors:** D. Bryant, T. Coohill, R. Hackney, G. Vourvopoulos

**Associate Professor:** K. Hackney

**Degrees Offered:** Master of Science in Physics , Master

of Arts in Education (Physics minor).

### Master of Science in Physics

Call or write the department for details about this degree program.

### Master of Arts in Education

The Department offers three program options leading to the Master of Arts in Education; a physics minor with a

minimum of 12 hours, science area major with a minimum of 18 hours, and a math-science major with a minimum of 18 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.)

### 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 behavior 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.

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 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. Prerequisite: 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 406. 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, radioactivity, 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

### 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.

#### 418G Computers and Physical Measurement. 3 hours.

Study of the application of the computer in the physics lab.

#### 431G Radiation Biophysics. 4 hours.

(Also, Biology 431)

with different topic.

**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 Schrödinger 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.

**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 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- 402G Physical Science I and II.** 3 hours.

The primary physical properties of matter and forms of energy. Emphasis on measurement processes, 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 teaching of science in the elementary school. Includes laboratory experiments.

**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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Ms. Julie Shelton (Student)

## GRADUATE FACULTY

### College of Arts, Humanities, and Social Sciences

#### ART

Fernandez, Leo A.	MFA, Claremont Graduate School, Professor
Forrester, Charles, H.	MFA, University of Oregon, Professor
Nothelsen, Laurin,	MFA, University of Illinois, Associate Professor
Oakes, John	MFA, University of Iowa, Professor
Peterie, Dari Nell	Ed.D., University of Missouri, Professor
Stomps, Walter E.	MFA, School of Art Institute of Chicago, Professor
Trutty-Coohill, Patricia	Ph.D., Pennsylvania State University, Associate Professor
Weaver, William C.	MA, Ohio State University, Professor

#### COMMUNICATION AND BROADCASTING

Anderson, Charles M.	Ph.D., Indiana University, Professor
Caillouet, Larry	Ph.D., University of Illinois, Associate Professor
Cappe, Randall	Ed.D., University of Virginia, Professor
Garmon, Cecile E.	Ph.D., Vanderbilt University, Assistant Professor
Hoover, Judith	Ph.D., Indiana University, Assistant Professor
Kell, Carl L.	Ph.D., University of Kansas, Professor
O'Connor, J. Regis	Ph.D., Indiana University, Professor
Payne, K. E.	Ed.D., Vanderbilt University, Assistant Professor
Wicklander, Dale	Ph.D., University of Minnesota, Professor
Winn, Larry	Ph.D., Indiana University, Professor

#### ENGLISH

Carr, Patricia	Ph.D., Tulane University, Assistant Professor
Crouther, Lou-Ann	Ph.D., Indiana University, Assistant Professor
Davis, Nancy H.	Ph.D., Northwestern University, Professor
Dill, Lesa	Ph.D., University of Georgia, Assistant Professor
Eckard, Ronald	Ed.D., Ball State University, Professor
Flynn, James S.	Ph.D., Auburn University, Professor
Fridy, Wilford E.	Ph.D., University of Kentucky, Professor
Glaser, Joseph A.	Ph.D., University of Texas, Professor
Hagaman, John A.	D.A., Carnegie-Mellon University, Associate Professor
Heldman, James M.	Ph.D., University of North Carolina, Professor
Hellstrom, Ward	Ph.D., University of Illinois, Professor
Little, Leroy	Ph.D., George Peabody College, Professor
McCelvey, George E.	Ph.D., Duke University, Professor
McMahon, Dorothy	Ph.D., Vanderbilt University, Professor
McMahon, William	Ph.D., University of Chicago, Professor
Millichap, Joseph	Ph.D., University of Notre Dame, Professor
Mosby, Charmaine	Ph.D., University of North Carolina, Professor
Pelz, Karen	Ph.D., University of Iowa, Professor
Spurlock, John H.	Ph.D., University of Louisville, Professor
Steele, Frank P.	Ed.D., University of Tennessee, Professor
Survant, Joseph W.	Ph.D., University of Delaware, Professor
Ward, Robert E.	Ph.D., State University of Iowa, Professor

#### GOVERNMENT

Bluhm, Georg R.	Ph.D., University of Freiburg, Professor
Chelf, Carl P.	Ph.D., University of Nebraska, Professor
Cravens, Raymond L.	Ph.D., University of Kentucky, Professor
Hamilton, Chris	Ph.D., University of Kansas, Assistant Professor
Kearny, Edward N.	Ph.D., American University, Professor
Masannat, George S.	Ph.D., University of Oklahoma, Professor

Parker, John David  
Petersen, John H.  
Uveges, Joseph A.

Ph.D., University of Georgia, Professor  
Ph.D., University of Pittsburgh, Professor  
Ph.D., University of Florida, Professor

#### HISTORY

Antony, Robert J.	Ph.D., University of Hawaii, Assistant Professor
Bennett, James, D.	Ph.D., Vanderbilt University, Professor
Bussey, Charles J.	Ph.D., University of Kentucky, Professor
Crowe-Carraco, Carol E.	Ph.D., University of Georgia, Professor
Harrington, J. Drew	Ph.D., University of Kentucky, Professor
Harrison, Lowell H.	Ph.D., New York University, Professor
Haynes, Robert V.	Ph.D., Rice University, Professor
Jackson, Carlton L.	Ph.D., University of Georgia, Professor
Lee, David	Ph.D., Ohio State University, Professor
Lucas, Marion B.	Ph.D., University of South Carolina, Professor
Murphy, Frederick, I.	Ph.D., University of Florida, Professor
Phillips, Hugh D.	Ph.D., Vanderbilt University, Assistant Professor
Salisbury, Richard V.	Ph.D., University of Kansas, Professor
Stone, Richard G., Jr.	Ph.D., University of Tennessee, Professor
Thacker, Jack W., Jr.	Ph.D., University of South Carolina, Professor
Thompson, Francis H.	Ph.D., Texas Technological University, Professor
Troutman, Richard L.	Ph.D., University of Kentucky, Professor
Weigel, Richard D.	Ph.D., University of Delaware, Professor

#### MODERN LANGUAGES AND INTERCULTURAL STUDIES

Babcock, James C.	Ph.D., Vanderbilt University, Professor
Baldwin, Thomas, P.	Ph.D., University of Wisconsin, Professor
Brown, Carol Paul	Ph.D., University of Oklahoma, Professor
Collins, Camilla A.	Ph.D., Indiana University, Associate Professor
Love, Nathan	Ph.D., Indiana University, Assistant Professor
Martin, Robert L.	Ed.D., University of Georgia, Associate Professor
Miller, Jim Wayne	Ph.D., Vanderbilt University, Professor
Montell, W. Lynwood	Ph.D., Indiana University, Professor
Padilla, Raul H.	Ph.D., University of Illinois, Associate Professor
Pennington, E.	Ph.D., University of Cincinnati, Assistant Professor
Williams, Michael Ann	Ph.D., University of Pennsylvania, Assistant Professor

#### MUSIC

Campbell, F. Kent	Ed.D., University of Illinois, Professor
Davis, Kenneth	DMA, University of Rochester, Assistant Professor
Hale, Virgil E.	DMA, University of Kentucky, Professor
Kallstrom, Michael J.	DM, Florida State, Assistant Professor
Kelsey, David	MM, Western Kentucky University, Associate Professor
Kerssenbaum, Sylvia	Artist Diploma, Academia De Santa Cecilia (Rome), Professor
Livingston, David W.	Ph.D., Ohio State, Professor
Morriss, Ruth T.	M.A., George Peabody College, Assistant Professor
Norton, Christopher	D.M.A., Louisiana University, Assistant Professor
Reardon, Colleen A.	Ph.D., U.C.L.A., Assistant Professor
Swanson, Robyn K.	DME, University of Northern Colorado, Associate Professor
Volkman, Elizabeth	MM, Juilliard, Associate Professor
Wilkinson, Donald G.	DMA, University of Arizona, Assistant Professor

#### PHILOSOPHY AND RELIGION

Anderson, Alan	Ph.D., University of Chicago, Professor
Garrett, Jan Edward	Ph.D., University of Minnesota, Associate Professor
Howe, E. Margaret	Ph.D., University of Manchester, Professor
Lane, William L.	Th.D., Harvard University, Professor
Long, John E.	Ph.D., Brandeis University, Associate Professor
Mayhew, Larry D.	Ph.D., Vanderbilt, University, Professor

Nash, Ronald H.  
 Schoen, Edward L.  
 Seidler, Michael J.  
 Trafton, Joseph L.  
 Tuck, Donald R.  
 Veenker, Ronald A.  
 Vos, Arvin G.

Ph.D., Syracuse University, Professor  
 Ph.D., University of Southern California, Professor  
 Ph.D., St. Louis University, Associate Professor  
 Ph.D., Duke University, Associate Professor  
 Ph.D., University of Iowa, Professor  
 Ph.D., Hebrew Union College, Professor  
 Ph.D., University of Toronto, Professor

Lile, Stephen E.  
 Milliman, Ronald E.  
 Myers, Daniel A.  
 Noser, Thomas C.  
 Otto, Robert W.  
 Philhours, Joel  
 Pulsinelli, Robert W.  
 Reber, Robert A.

Ph.D., University of Kentucky, Professor  
 DBA, Arizona State University, Associate Professor  
 Ph.D., Vanderbilt University, Assistant Professor  
 Ph.D., University of Alabama, Assistant Professor  
 Ph.D., Northwestern University, Associate Professor  
 Ph.D., Kansas State University, Professor  
 Ph.D., Rutgers University, Professor  
 Ph.D., Louisiana State University, Assistant Professor  
 Ph.D., University of Illinois-Urbana-Champaign, Associate Professor  
 DBA, Georgia State University, Associate Professor  
 Ph.D., University of Georgia, Associate Professor  
 JD, University of Kentucky, Associate Professor  
 Ph.D., Indiana University, Professor  
 Ph.D., Purdue University, Associate Professor  
 Ph.D., University of Kentucky, Associate Professor

#### SOCIOLOGY, ANTHROPOLOGY, AND SOCIAL WORK

Baali, Fuad G.  
 Bohlander, Edward  
 Dunn, Thomas P.  
 Faine, John R.  
 Goetting, Ann  
 Grimm, James W.  
 Groce, Stephen D.  
 Kalab, Kathleen A.  
 Krenzin, Joan L.  
 Podolefsky, Aaron M.  
 Schock, Jack M.  
 Tuthill, Stuart B.  
 Wozniak, Paul R.

Ph.D., Louisiana State University, Professor  
 Ph.D., Ohio State University, Associate Professor  
 Ph.D., University of Kentucky, Professor  
 Ph.D., University of Iowa, Professor  
 Ph.D., Western Michigan State University, Professor  
 Ph.D., University of Illinois, Professor  
 Ph.D., University of Tennessee, Assistant Professor  
 Ph.D., Vanderbilt University, Professor  
 Ph.D., University of Wisconsin, Professor  
 Ph.D., State University of New York at Stony Brook, Professor  
 Ph.D., State University of New York, Professor  
 Ph.D., University of Kentucky, Associate Professor  
 Ph.D., University of Massachusetts, Professor

Redman, Arnold L.  
 Renas, Stanley R.  
 Roberts, Charles A  
 Sullivan, Brian  
 Wassom, John C.  
 Wisley, Thomas  
 Wolfe, Edward R.

#### THEATRE AND DANCE

Combs, Don W.  
 Kesler, W. Jackson  
 Leonard, William E.  
 Probus, Steve A.  
 Ruff, Loren K.

Ph.D., University of Illinois, Professor  
 Ph.D., University of Texas, Professor  
 Ph.D., Ohio State University, Professor  
 MFA, University of Nebraska, Assistant Professor  
 Ph.D., Indiana University, Associate Professor

Ed.D., University of Georgia, Assistant Professor  
 Ed.D., University of Oklahoma, Professor  
 Ed.D., Memphis State University, Associate Professor  
 Ed.D., University of Kentucky, Professor  
 Ph.D., Ohio State University, Professor

### College of Business Administration

Aldridge, Charles R.  
 Borland, Melvin V.  
 Bretz, Robert W.  
 Buntzman, Gabriel F.  
 Busch, Edgar T.  
 Campbell, Walter M.  
 Cann, Kenneth T.  
 Davis, William W.  
 Erffmeyer, Robert C.  
 Finley, Lawrence K.  
 Fugate, Douglas L.  
 Ferguson, Wade  
 Goff, Brian Leon  
 Hall, Jack O., Jr.  
 Hays, Charles T.  
 Howsen, Roy, M.  
 Kim, H. Youn  
 Kinard, Jerry

DBA, University of Kentucky, Assistant Professor  
 Ph.D., Washington University, Associate Professor  
 DBA, Mississippi State University, Associate Professor  
 Ph.D., University of North Carolina, Assistant Professor  
 Ph.D., University of Arkansas, Professor  
 Ph.D., North Texas State University, Assistant Professor  
 Ph.D., University of Kentucky, Associate Professor  
 Ph.D., University of Kentucky, Associate Professor  
 Ph.D., Louisiana State University, Assistant Professor  
 Ph.D., Ohio State University, Associate Professor  
 Ph.D., University of Missouri-Columbia, Associate Professor  
 Ph.D., Ohio State University, Professor  
 Ph.D., George Mason University, Assistant Professor  
 Ph.D., University of Missouri, Professor  
 Ph.D., University of Missouri, Professor  
 Ph.D., University of Arkansas, Associate Professor  
 Ph.D., University of Cincinnati, Associate Professor  
 DBA, Mississippi State University, Professor

#### EDUCATIONAL LEADERSHIP

Adams, Ronald D.  
 Ashley, I. Wayne  
 Brumfield, Stanley  
 Burkeen, Emmett D.  
 Cline, H. Dwight  
 Constance, H.  
 Philip, Jr.  
 Deeb, Norman  
 Flanigan, Jackson  
 Gallegos, Jose Gene  
 Greer, Richard M.  
 Harryman, M. Eugene  
 House, Stephen D.  
 Kreisler, Carl W.  
 Meredith, Ruth C.  
 Meredith, Thomas  
 Mitchell, DeWayne  
 Richardson, Michael D.  
 Robinson, A. Faye  
 Sandefur, J.T.  
 Schnacke, Stephen B.  
 Schrader, Robert  
 Shannon, David W.  
 Sheeley, Vernon L.  
 Smith, R. Douglas  
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Ed.D., University of Southern Mississippi, Professor  
 Ed.D., University of Kentucky, Associate Professor  
 Ed.D., University of Southern Mississippi, Professor  
 Ed.D., University of Kentucky, Professor  
 Ed.D., University of Kentucky, Professor  
 Ed.D., University of Florida, Professor  
 Ed.D., University of Kentucky, Professor  
 Ed.D., Virginia Polytechnic Institute, Associate Professor  
 Ed.D., University of Northern Colorado, Associate Professor  
 Ph.D., University of Missouri-Columbia, Associate Professor  
 Ed.D., University of Kansas, Professor  
 Ed.D., Indiana University, Assistant Professor  
 Ed.D., Indiana University, Professor  
 Ed.D., Vanderbilt, Associate Professor  
 Ed.D., University of Mississippi, Professor  
 Ph.D., University of Kentucky, Professor  
 Ed.D., University of Tennessee, Assistant Professor  
 Ed.D., University of Tennessee, Professor  
 Ed.D., Indiana University, Professor  
 Ed.D., Ball State University, Professor  
 Ed.D., University of Wyoming, Professor  
 Ed.D., University of Wyoming, Professor  
 Ph.D., University of Wyoming, Professor  
 Ph.D., Southern Illinois University, Assistant Professor  
 Ph.D., Iowa State University, Associate Professor

Traugott, William M.	Ph.D., Kansas State University, Professor	Owen, Ernest H.	Ed.D., University of Florida, Associate Professor	
Trumbo, Cynthia T.	Ph.D., Iowa State University, Assistant Professor	Pfohl, William F.	Psy.D., Rutgers University, Associate Professor	
Updike, Thomas, L., Jr.	Ed.D., Auburn University, Professor	Poe, Retta E.	Ph.D., University of Missouri-Columbia, Associate Professor	
Wilder, Jerry, R.	Ed.D., George Peabody College, Professor	Redfield, Doris	Ph.D., University of Arizona, Associate Professor	
<b>HOME ECONOMICS AND FAMILY LIVING</b>				
Atkins, T. Virginia	Ph.D., University of Alabama, Associate Professor	Robe, Harry R.	Ed.D., Indiana University, Professor	
Casto, Marilyn D.	Ph.D., University of North Carolina, Associate Professor	Roenker, Daniel L.	Ph.D., Kansas State University, Professor	
Clark, Sallye R.	Ph.D., Texas Woman's University, Professor	Simpson, Robert E.	Ph.D., University of Alabama, Professor	
Ehrcke, Louis A.	Ph.D., University of Tennessee, Professor			
Floyd, William A.	Ed.D., North Texas State University, Professor	<b>TEACHER EDUCATION</b>		
Fong, Louella J.	Ph.D., Purdue University, Professor	Becker, James P.	Ph.D., Florida State University, Professor	
Fulwood, Betty M.	Ed.D., Oklahoma State University, Associate Professor	Cooke, Stanley, S.	Ed.D., University of Virginia, Professor	
Gibbs, Shirley O.	Ed.D., Oklahoma State University, Associate Professor	Counts, Edward L.	Ed.D., East Texas State University, Associate Professor	
Hayden, Delbert J.	Ph.D., Florida State University, Professor	Englebright, Curtis	Ph.D., Southern Illinois University, Professor	
Hedges, Roy D.	Ph.D., Florida State University, Professor	Ferguson, Janice L.	Ph.D., University of Oklahoma, Assistant Professor	
Jenkins, Martha C.	Ph.D., Ohio State University, Professor	Galluzzo, Gary R.	Ph.D., Syracuse University, Associate Professor	
Moore, Violet	Ph.D., Southern Illinois University, Professor	Gibbs, James A.	Ed.D., Oklahoma State University, Professor	
Rasdall, Joyce O.	Ph.D., Ohio State University, Professor	Hicks, Retta D.	Ed.D., University of Southern Mississippi, Professor	
Roberts, Thomas W.	Ph.D., University of Georgia, Assistant Professor	Kersting, Frank	Ed.D., Vanderbilt University, Assistant Professor	
<b>PHYSICAL EDUCATION AND RECREATION</b>		Koper, James A.	Ed.D., University of Missouri, Professor	
Adkins, Dale	Re.D., Indiana University, Assistant Professor	Laman, A.	Ed.D., University of Arkansas, Professor Emeritus	
Crews, Thaddeus, R.	Ph.D., University of Missouri, Professor	McKenzie, Robert G.	Ph.D., University of Iowa, Associate Professor	
Crume, Charles T.	Ed.D., University of Kentucky, Associate Professor	Melville, Robert S.	Ed.D., Utah State University, Professor Emeritus	
Daniel, Charles V.	Ed.D., Vanderbilt University, Associate Professor	Minix, Nancy A.	Ed.D., Vanderbilt University, Assistant Professor	
Jones, John W.	P.Ed. Indiana University, Professor	Monroe, Eula E.	Ed.D., Vanderbilt University, Professor	
Kummer, William G.	Ph.D., University of Utah, Associate Professor	Otto, Robert A.	Ph.D., University of Iowa, Professor	
Laney, Shirley	Ph.D., University of Texas, Associate Professor	Panchyshyn, Robert	Ph.D., State University of Iowa, Professor	
Little, Alton D.	Ed.D., University of Georgia, Professor	Pankratz, Roger	Ph.D., Ohio State University, Professor	
Meadors, William J.	D.P.E., Springfield College, Professor	Rich, E. Eugene	Ed.D., University of Arkansas, Professor	
<b>PSYCHOLOGY</b>		Ritter, Donald E.	Ed.D., Indiana University, Associate Professor	
Ball, Karlene	Ph.D., Northwestern University, Associate Professor	Roberts, Julia L.	Ed.D., Oklahoma State University, Associate Professor	
Bruni, John	Ph.D., Texas Christian University, Assistant Professor	Ruff, Ann C.	Ed.D., Indiana University, Associate Professor	
Cangemi, Joseph P.	Ed.D., Indiana University, Professor	Sanders, James E.	Ph.D., Michigan State University, Professor	
Clark, Lynn Fred	Ph.D., University of Kansas, Professor	Shinn, Roy	Ph.D., University of Oklahoma, Assistant Professor	
Craig, James R.	Ph.D., Iowa State University, Professor	Simmons, Herbert N.	Ed.D., University of Kansas, Professor	
Cunningham, William H.	Ed.D., Indiana University, Professor	Smith, Robert C.	Ph.D., Louisiana State University, Associate Professor	
Eison, Charles L.	Ed.D., University of Kentucky, Associate Professor	Stevenson, Robert L.	Ph.D., Southern Illinois University, Professor	
Erffmeyer, Elizabeth	Ph.D., Louisiana State University, Associate Professor	Taylor, Keith H.	Ed.D., Indiana University, Associate Professor	
Grice, Dorsey D.	Ph.D., University of Nebraska, Associate Professor	Taylor, Sara D.	Ed.S., George Peabody College, Associate Professor Emeritus	
Howton, Betsy	Ph.D., University of Alabama, Associate Professor	Vokurka, John F.	Ed.D., Indiana University, Professor	
Johnson, James S.	Ed.D., George Peabody College, Professor	Watts, David B.	Ed.D., University of Kentucky, Professor	
Kuhlenschmidt, Sally	Ph.D., Purdue University, Assistant Professor			
Layne, C. Clinton	Ph.D., Southern Illinois University, Professor	<b>Ogden College of Science, Technology, and Health</b>		
Layne, Lois E.	Ph.D., Southern Illinois University, Professor			
Martray, Carl R.	Ph.D., University of Alabama, Professor	<b>AGRICULTURE</b>		
McFarland, Sam G.	Ph.D., Vanderbilt, University, Professor			
Mendel, Raymond M.	Ph.D., Iowa State University, Professor	Coffey, David	Ed.D., Virginia Polytechnic Institute and State University, Associate Professor	
Metze, Leroy P.	Ph.D., University of Houston, Professor	Gray, Elmer	Ph.D., Cornell University, Professor	
Miller, Richard L.	Ph.D., University of Houston, Professor	Hughes, Luther B., Jr.	Ph.D., Purdue University, Professor	
O'Connor, John R.	Ph.D., George Peabody College, Professor	Jones, Gordon F.	Ph.D., University of Tennessee, Professor	
		Martin, James M.	Ph.D., Ohio State University, Associate Professor	
		Pennington, Jodie A.	Ph.D., University of Illinois, Associate Professor	
		Schneider, Robert M.	Ed.D., Michigan State University, Professor	
		Stiles, David A.	Ph.D., Southern Illinois University, Associate Professor	
		Worthington, James P.	Ph.D., Ohio State University, Professor	

**BIOLOGY**

Balak, Kenneth	Ph.D., University of South Carolina, Assistant Professor
Dillard, Gary E.	Ph.D., North Carolina State University, Professor
Dunham, Valgene L.	Ph.D., Syracuse University, Professor
Elliott, Larry P.	Ph.D., University of Wisconsin, Professor
Ferrell, Blaine	Ph.D., Louisiana State University, Associate Professor
Ford, Scott	Ph.D., Tulane University, Associate Professor
Gleason, Larry N.	Ph.D., University of North Carolina, Professor
Houston, Martin R.	Ph.D., Vanderbilt University, Professor
Hoyt, Robert D.	Ph.D., University of Louisville, Professor
Kupchella, Charles E.	Ph.D., St. Bonaventure, Professor
Nicely, Kenneth A.	Ph.D., North Carolina State University, Professor
Prins, Rudolph	Ph.D., University of Louisville, Professor
Rinehart, Claire	Ph.D., University of Georgia, Assistant Professor
Toman, Frank R.	Ph.D., Kansas State University, Professor
Winstead, Joe E.	Ph.D., University of Texas, Professor

Moore, Conrad T.  
Petersen, Albert, Jr.  
Seeger, Charles R.  
Trapasso, L. Michael

Ph.D., U.C.L.A., Associate Professor  
Ph.D., Louisiana State University, Professor  
Ph.D., University of Pittsburgh, Professor  
Ph.D., Indiana State University, Associate Professor

**CHEMISTRY**

Chamberlin, John M.	Ph.D., Duke University, Associate Professor
Dahl, Darwin B.	Ph.D., University of Missouri-Kansas City, Assistant Professor
Green, Thomas K.	Ph.D., University of Tennessee, Assistant Professor
Hartman, David R.	Ph.D., Virginia Polytechnic Institute, Associate Professor
Henrickson, Charles H.	Ph.D., State University of Iowa, Professor
Hessley, Rita K.	Ph.D., University of Missouri-Rolla, Professor
Holman, Robert W.	Ph.D., University of Nebraska-Lincoln, Assistant Professor
Hunter, Norman W.	Ed.D., University of Toledo, Professor
Pan, Wei-Ping	Ph.D., Michigan Technical University, Assistant Professor
Pearson, Earl F.	Ph.D., Vanderbilt University, Professor
Reasoner, John W.	Ph.D., State University of Iowa, Professor
Riley, John T.	Ph.D., University of Kentucky, Professor
Shank, Lowell, W.	Ph.D., Ohio State University, Professor
Wilkins, Curtis	Ph.D., Michigan State University, Professor

**INDUSTRIAL AND ENGINEERING TECHNOLOGY**

Conley, Franklin  
Pittman, Frank M., Jr.  
Russell, John P.  
Wendt, Donald D.

Ed.D., University of Missouri, Professor  
Ed.D., Texas A&M University, Professor  
Ph.D., University of Florida, Professor  
Ed.D., University of Missouri, Professor

**COMPUTER SCIENCE**

Cheatham, Tom	Ph.D., University of Kentucky, Professor
Crawford, Robert R.	Ph.D., Indiana University, Professor
Crenshaw, John H.	Ph.D., Iowa State University, Professor
Modesitt, Kenneth L.	Ph.D., Washington State University, Professor
Shindhelm, Arthur D.	Ph.D., Syracuse University, Associate Professor

**MATHEMATICS**

Barksdale, James B., Jr.  
Brunson, Barry W.  
Iraniparast, Nezam  
Jones, Wilburn C.  
Lowman, Pauline  
Powers, R. Glenn  
Richmond, Thomas A.  
Spraker, John S.  
Stokes, Joseph, F.  
Wallace, Kyle D.  
Weils, Carroll G.  
Zoeller, M. Bettina

Ph.D., University of Arkansas, Professor  
Ph.D., Indiana University, Associate Professor  
Ph.D., University of California-Davis, Assistant Professor  
Ph.D., George Peabody College, Professor  
Ph.D., George Peabody College, Associate Professor  
Ph.D., Memphis State University, Professor  
Ph.D., Washington State University, Assistant Professor  
Ph.D., Indiana University, Assistant Professor  
Ph.D., George Peabody College, Professor  
Ph.D., Vanderbilt University, Professor  
Ph.D., Vanderbilt University, Professor  
Ph.D., Florida State University Assistant Professor

**GEOGRAPHY AND GEOLOGY**

Ahsan, Syed Reza	Ph.D., University of Florida, Professor
Crawford, Nicholas C.	Ph.D., Clark University, Professor
Davis, James L.	Ph.D., Northwestern University, Professor
Fields, Noland E.	Ph.D., Louisiana State University, Professor
Foster, Stuart	Ph.D., Ohio State, Assistant Professor
Hegen, Edmund E.	Ph.D., University of Florida, Professor
Hoffman, Wayne L.	Ph.D., University of Florida, Professor
Kuehn, Kenneth W.	Ph.D., Pennsylvania State University, Associate Professor
Lowry, Mark, III	Ph.D., Syracuse University, Professor

**NURSING**

Hazzard, Mary E.

Ph.D., New York University, Professor

**PHYSICS AND ASTRONOMY**

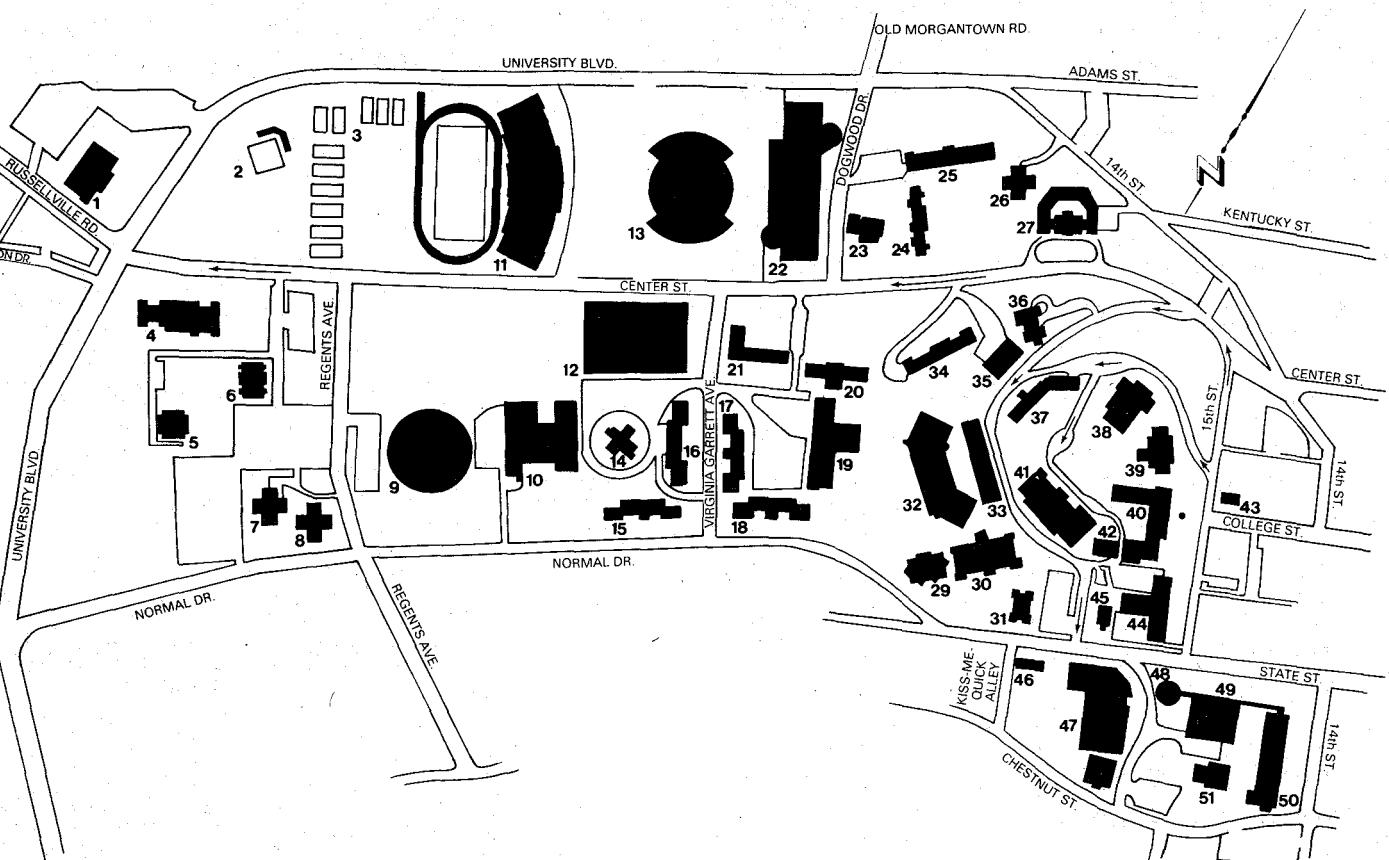
Bryant, F. Dudley  
Coohill, Thomas P.  
Hackney, Karen R.  
Hackney, Richard L.  
Vourvopoulos, George

Ph.D., Auburn University, Professor  
Ph.D., Pennsylvania State University, Professor  
Ph.D., University of Alabama, Associate Professor  
Ph.D., University of Florida, Professor  
Ph.D., Florida State University, Professor

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## CAMPUS MAP

### Western Kentucky University

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- 1 Services-Supply Building
- 2 Denes Field
- 3 Tennis Courts
- 4 Keen Hall
- 5 Pearce-Ford Tower
- 6 Poland Hall
- 7 Barnes-Campbell Hall
- 8 Bemis Lawrence Hall
- 9 Tate Page Hall
- 10 Academic Complex
- 11 Smith Stadium  
(Academic-Athletic Building No. 2)
- 12 Downing University Center
- 13 Diddle Arena  
(Academic-Athletic Building No. 1)
- 14 Central Hall
- 15 South Hall
- 16 West Hall
- 17 North Hall
- 18 East Hall
- 19 Grise Hall
- 20 McLean Hall
- 21 Bates-Runner Hall
- 22 Parking Structure and  
Public Safety Building
- 23 Heating Plant
- 24 Gilbert Hall
- 25 McCormack Hall
- 26 Rodes-Harlin Hall
- 27 Kentucky Building
- 29 Cravens Graduate Center and Library
- 30 Helm Library
- 31 Industrial Education Building
- 32 Ivan Wilson Center for Fine Arts
- 33 Outdoor Theatre and Colonnade
- 34 Schneider Hall
- 35 Wetherby Administration Building

- 36 Craig Alumni Center and  
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- 37 Potter Hall
- 38 Van Meter Hall
- 39 Gordon Wilson Hall
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- 41 Garrett Conference Center
- 42 Faculty House
- 43 Rock House
- 44 Science and Technology Hall
- 45 Diddle House
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## 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	From all colleges attended	Transcripts are needed at least 30 days prior to beginning of semester of entrance
Take GRE	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	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 requirement(s) and prior to enrollment in hours beyond 21
Addition or deletion of a course listed on approved program of study	See department advisor	Prior to enrollment in course to be substituted
Remove any incomplete grades	See department advisor	Incomplete (or X) grades automatically become "F" after one calendar year if work is not completed
Take comprehensive exam	See department 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 three 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

### NOTES

**WESTERN KENTUCKY UNIVERSITY  
GRADUATE COLLEGE**

Form A

Application for Admission

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)	(Telephone)		
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. Undergraduate Degree Information:	(Institution)	(Degree)	(Month and Year)				
15. Previous Graduate Study (if any):	(Institution)	(Degree or Hours) (Year)					
16. Previous Enrollment at Western: Earliest Date	Most recent date						
17. Have you taken the G.R.E. ( ) Yes ( ) No &/or the G.M.A.T. ( ) Yes ( ) No?	18. If yes, scores reported to WKU? ( ) Yes ( ) No						
19. Employment History (begin with most recent)							
Employer	Address	From	To				
20. Enrollment Plans ( ) On Campus ( ) Extended Campus Year _____ ( ) Fall ( ) Spring ( ) Summer							
21. Teacher Certification held. (a copy of all teaching certificates must accompany this application) ( ) Provisional Elementary ( ) Provisional Secondary ( ) Standard Elementary ( ) Standard Secondary ( ) Other							
22. For which <b>one</b> 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. _____ Supt. _____ Prin. _____ DPP _____							

**DEGREES AVAILABLE**

**MASTER OF ARTS IN EDUCATION**

) Secondary	Education
(Major)	(Minor)
*Education	
(Major)	(Minor)
*If Reading emphasis desired, please indicate _____	
) Elementary (1-8)	Early Childhood Reading
	Exceptional Child Librarian
) Elementary (K-4)	
) Elementary (5-8)	
) Exceptional Child	LBD TMH
) School Counseling:	Elementary Secondary
) Community Agency Counseling	
) Student Personnel Services in Higher Education	
) School Business Administrator	
) General Education (non-certification program)	

**MASTER OF ARTS**

- ( ) Child Dev. & Fam. Living
- ( ) Communication
- ( ) Economics
- ( ) English
- ( ) Folk Studies
- ( ) History
- ( ) Humanities
- ( ) Psychology:
  - ( ) Clinical ( ) School
  - ( ) Industrial ( ) General
- ( ) Sociology

**MASTER OF PUBLIC SERVICE**

- ( ) Counseling

**MASTER OF MUSIC**

- ( ) MASTER OF PUBLIC ADMIN.

**COOPERATIVE MASTERS**

- ( ) Nursing-University of Kentucky
- ( ) Criminal Justice-Eastern Kentucky

**MASTER OF SCIENCE**

- ( ) Agriculture
- ( ) Biology
- ( ) Chemistry
- ( ) City & Regional Planning
- ( ) Communication Disorders
- ( ) Computer Science
- ( ) Geography
- ( ) Health
- ( ) Administration
- ( ) Environment
- ( ) Nutrition
- ( ) Public Health Education
- ( ) Home Economics
- ( ) Foods and Nutrition
- ( ) Interior Design and Housing
- ( ) Textiles and Clothing
- ( ) Library Science
- ( ) Mathematics
- ( ) Physical Education
- ( ) Recreation

**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)

(over)

(Date received in Graduate College)

## 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. Master of Arts in Education students must submit a copy of all teaching certificates at the time of application. The Graduate Record Examination—Aptitude Section is required of all degree seeking students. 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. Rank I, Rank II, and certification only students must submit a copy of all teaching certificates at the time of application.

**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.

## INCENTIVE AND ALUMNI GRANTS

The awarding of the incentive or alumni grant will entitle the out-of-state resident to pay the in-state registration fees. A student is only entitled to one of these grants.

An incentive grant is available to qualified students who are residents of Clay, Cheatham, Davidson, Macon, Robertson, Sumner, Trousdale, Williamson and Wilson counties in Tennessee and Perry, Posey, Spencer, Vanderburgh and Warrick counties in Indiana. Upon receipt of an official transcript showing the completed undergraduate degree, eligibility will be determined. (In the case of transient students, the visiting student form (Form H) must be on file to qualify for the grant.)

An alumni grant is available to qualified non-resident students whose parent(s), stepparent(s), legal guardian(s), or grandparent(s) completed a degree or a certified program from Western Kentucky University. Upon receipt of an official transcript showing the completed undergraduate degree and the application for the alumni grant, eligibility will be determined. (In the case of transient students, the visiting student form (Form H) must be on file to qualify for the grant.) Grant applications are available from the Graduate College office upon request.

## 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 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.