

Western Kentucky University Bulletin



1980-81

Graduate College Issue

A black and white photograph of a modern brick building with a prominent portico supported by white columns. The building is partially obscured by large trees. A sign on the left side of the portico reads "RAYMOND RAVENS GRADUATE CENTER". A set of stairs with a railing leads up to the portico, and a tall lamp post stands near the entrance.

RAYMOND RAVENS
GRADUATE CENTER

WESTERN KENTUCKY UNIVERSITY

Accredited By:

Southern Association of Colleges and Schools

Member Of:

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

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National Council for Accreditation of Teacher Education
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STUDENT RESPONSIBILITY

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

Western Kentucky University Bulletin (USPS678-620) is published quarterly by Western Kentucky University, Bowling Green, Kentucky 42101. Second class postage paid at Bowling Green, Kentucky 42101.

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 consid-

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

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

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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.

In 1964 the Bowling Green College of Commerce was organized into an academic division of Western, and the Graduate Division was changed to the Graduate School. In 1965 Western's Board of Regents approved the formation of three new colleges: the College of Education, the Potter College of Liberal Arts and the Ogden College of Science and Technology. In 1969 the name of the Graduate School was changed to the Graduate College and the College of Applied Arts and Health was added, creating a total of six colleges in the structure of Western. In 1972 the Bowling Green College of Commerce was renamed the Bowling Green College of Business and Public Affairs, and the Potter College of Liberal Arts was renamed Potter College of Arts and Humanities.

THE GRADUATE COLLEGE

History

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

Administration

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

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

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

CULTURAL, RELIGIOUS AND RECREATIONAL OPPORTUNITIES

Music

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

Communication and Theatre

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

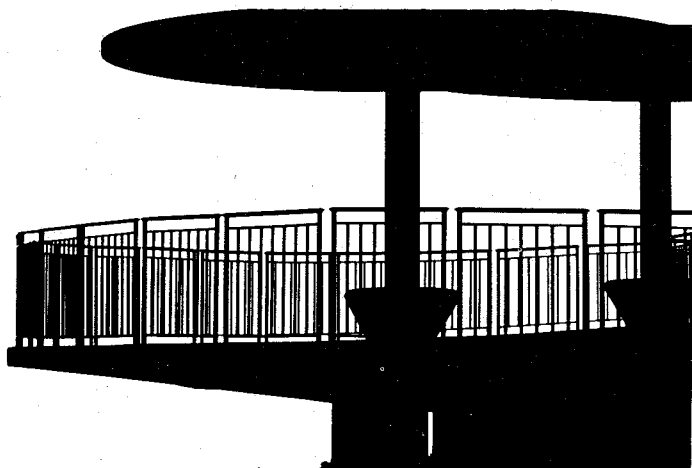
Art

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

Foreign Languages

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

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



LIBRARIES, RESOURCE CENTERS AND INSTRUCTIONAL MEDIA

Lecture Series

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

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

Planetarium

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

Recreational Activities

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

Religious Life

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

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

Library Services

Seven library and resources centers serve the academic community at Western Kentucky University. They are: (1) the Margie Helm Library, (2) the Raymond L. Cravens Graduate Center and Library, (3) Kentucky Library and Museum, (4) Science Library, (5) the Education Resources Center, (6) University Archives and (7) Jones-Jaggers Laboratory School Library. These libraries and resource centers provide a seating capacity of 3,175 and a book capacity of 1,000,000 volumes.

Library resources are organized into divisional collections. This arrangement allows maximum benefits for reference and research activities among its 450,000 volumes; 6,075 journal holdings; 345,000 microform units within the libraries. An on-line computerized resources management system with remote video display terminals provides the library user with immediate data on the availability and status of library resources.

Individual carrels are provided for students engaged in thesis or research projects, and rooms are provided for graduate seminars. The library offers aid to researchers through extensive bibliographies, indexing and abstracting services, and interlibrary loans. The library is a depository for federal, state, and selected United Nations documents. Significant collections of research materials in several fields are available in various forms of micro-reproductions. Various computer based research services are available, and the retrieval of these primary resources is accomplished through cooperation with Academic Computing and Research Services and the Kentucky Educational Computer Network.

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

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

Media Services

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

NON-ACADEMIC SERVICES

Archives

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

Research and Computing Services

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

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

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

Cooperative and Experiential Education

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

Counseling Services Center

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

Housing Facilities

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

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

Food Services

The variety of food services maintained on campus include the Garrett Conference Center Cafeteria, which offers a voluntary board plan, and the Downing University Center Cafeteria. A Snack Bar and Grill are also housed in the Garrett Conference Center and the Downing University Center, respectively. Vending and self-service facilities are available in all dormitories.



FINANCIAL ASSISTANCE

Loans

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

Federally Insured Bank Loan. This long-term loan may be secured through the student's local bank. Student applicants who do not qualify for interest subsidy begin paying interest at a rate of seven to ten percent upon receipt of the loan.

College Heights Foundation Loan. This loan permits borrowing with a low-interest rate and usually requires repayment on a short-term basis.

Workships

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

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

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

For maximum consideration, apply before March 15 for fall and spring semesters combined, fall semester only, or summer session only. Apply before December 1 for spring semester only.

Research Grants

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

Veterans Administration Benefits

G.I. Bill. Students who have had more than 180 days of active service with the Armed Forces after January 31, 1955, or have served less than 181 days but received an honorable discharge for service-connected disability are eligible for educational assistance under the Veterans Readjustment Benefits Act of 1966. Applications are made directly to the Veterans Administration, 600 Federal Place, Louisville, Kentucky. Application forms are available in the Student Financial Aid Office. 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

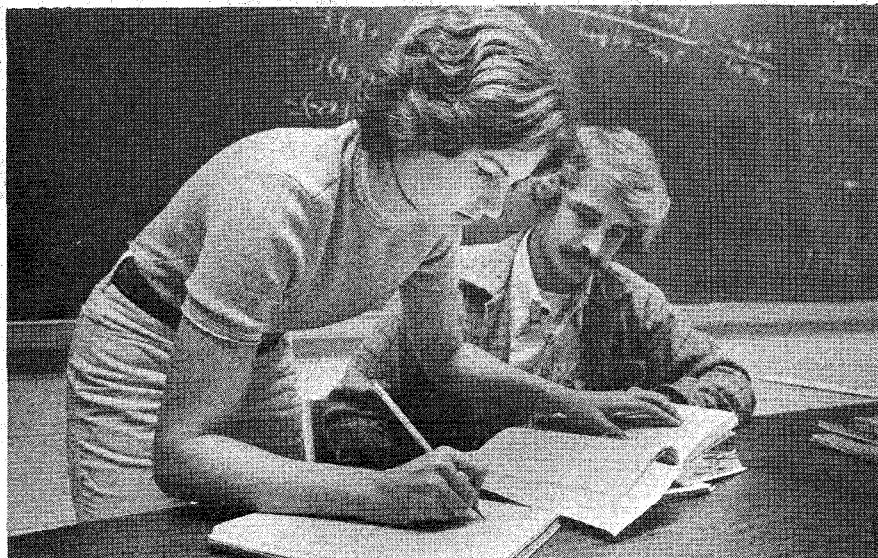
Graduate assistantships are available in various departments and service areas to well-qualified students. Stipends vary depending upon the student's qualifications and duties assigned. In addition to the stipend, the out-of-state portion of the grad-

uate assistant's fees is awarded in the form of a scholarship. Graduate assistants are permitted to carry a maximum of 12 hours during a regular semester and 4 hours during a regular summer session.

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

The applicant for a graduate assistantship must have been admitted to a graduate program, must have an overall undergraduate grade point average of at least 2.8 or a score of not less than 800 on the Aptitude (verbal and quantitative combined) Test of the Graduate Record Examination, and should apply prior to February 1. The assistantship application and three letters of recommendation (to be requested by the student, not the Graduate College) must be submitted to the Dean of the Graduate College. Appointments are based upon the recommendation and approval of the head of the department and the dean of the college in which the assistantship is granted.

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



GENERAL INFORMATION

Academic Year

The University provides a year-round instructional program consisting of the fall and spring semesters and two 5½ week summer terms. A wide offering of graduate courses is available to students during the regular semesters and summer terms.

Registration Procedures

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

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

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

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

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

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

Graduate Fees

Full-time Students

Term	Resident	Non-Resident
Spring or Fall semester	307.00	820.00
Summer term	307.00	820.00

Part-time Students (per credit hour)

Term	Resident	Non-Resident
Spring or Fall semester	35.00	92.00
Summer term	35.00	92.00

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

A minimum of nine hours during a regular semester and five hours during a summer session is required

in order to be classified as a full-time student.

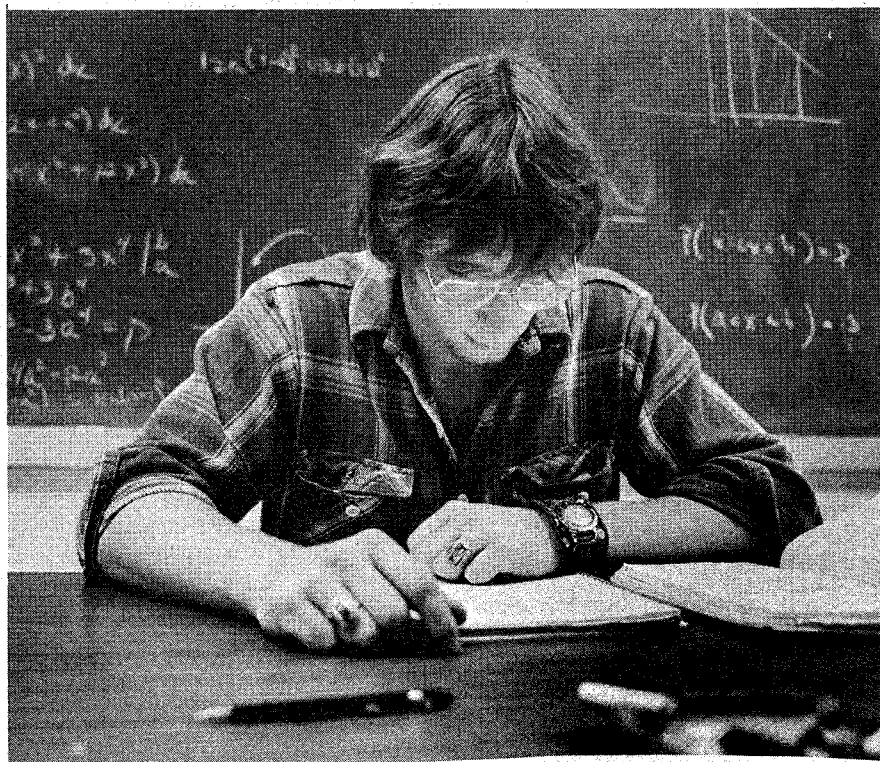
Course Numbering System

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 (e.g. Eng. 401G) may be taken for graduate credit. In these courses,

graduate students are expected to complete additional course requirements as prescribed by the instructor.

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



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. During a summer session, the minimum and maximum course load for a full-time graduate student is 6 hours.

Graduate assistants may take a maximum of 12 hours during a regular semester, 4 hours during a summer session.

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

Time Limitation for Completion of Degree

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

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

Transfer Credit

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

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

Correspondence Study

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

Graduate Record Examination

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

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

Major Advisor

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

Program of Study (Form C)

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

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

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

Course Substitutions

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

Program of Study Change

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



Grades lower than "C" may not be used in meeting degree or non-degree program requirements. The grade of "X" (incomplete) automatically becomes "F" after one calendar year if the work is not completed. Prior to the designated time limit, point average is not affected by a grade of "X". In the case of theses and specialist projects, an incomplete may remain until the research and writing are completed.

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

Admission to Candidacy

Admission to the Graduate College and admission to candidacy for a degree are two separate procedures. 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. All degree-seeking students must apply for and be admitted to candidacy by submitting Form D to the Graduate College. Admission to candidacy should be an expression of confidence that the student will (with appropriate, continued effort) be able to complete all requirements for the degree. Failure to gain admission to candidacy by the established deadline will result in the student having to take additional hours.

Candidates for graduate degrees are required to have a combined GPA of at least 3.0 in all courses taken in the major and minor areas regardless of whether they are included on the approved degree program (Form C).

For the master's degree student, candidacy must be gained after completion of at least 12 hours and prior to enrollment in hours beyond 21 toward the program of study. Candidacy status requires (1) removal of

any deficiencies or conditions for admission, (2) for MA and MS candidates, the completion of any required research tool course(s) with a 3.0 or above or satisfactory completion of the foreign language examination, (3) attainment of at least a 3.0 GPA on graduate coursework, and (4) approval of the major department and Graduate College.

For the specialist degree student, candidacy must be gained after the completion of at least 9 hours and prior to enrollment in hours beyond 18 toward the program of study. Candidacy status requires (1) attainment of at least a 3.0 GPA on graduate coursework and (2) approval of the major department and Graduate College.

Comprehensive Examination

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

Students must contact their major advisors for scheduling the examination.

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

Second Master's Guidelines

The student who wishes to earn a second master's degree from Western Kentucky University must apply for and gain admission to the new program and must satisfy all requirements (specific coursework, research tool, thesis, etc.) for the new degree,

completing at least 18 additional hours of coursework or 12 hours of new coursework plus the thesis. No more than 12 hours of previous coursework, whether transferred from another university or from the previous master's degree at Western (or a combination of the two), may be used to fulfill program and research tool requirements.

Seniors Earning Graduate Credit

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

Thesis and Specialist Project Advisory Committees

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

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

ADMISSION REQUIREMENTS

Thesis or Specialist Project

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

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

Maintaining Matriculation

If the thesis or project is not completed during the period of registration for this credit, the student must maintain matriculation until said thesis or project has been submitted and approved. Therefore, if not enrolled in thesis/project credit or for graduate coursework, the student must register for 599c (thesis) or 699c (project) during any semester or summer term in which he/she will be actively pursuing the thesis or project or will be submitting it for approval. Enrollment in 599c or 699c does not result in a grade or in 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 by November 5 for fall completion, April 2 for spring completion, and June 29 for summer completion of the degree.

Initial Procedures

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

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

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

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

Requirements: Master's Degree Applicants

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

- A. Hold a bachelor's degree from a college or university of recognized standing. (Applicants from non-accredited institutions see below.)
- B. Have adequate preparation in the field of specialization.
- C. Have (1) an overall grade point average of not less than 2.5, or (2) a grade point average of 2.5 on the last sixty semester hours of undergraduate work, or (3) a score of not less than 700 on the Aptitude (verbal and quantitative combined) section of the Graduate Record Examination.

Requirements for admission to some programs are higher than these minimum standards.

- D. Applicants for the Master of Business Administration program must submit scores on the Graduate Management Admissions Test in lieu of GRE scores, regardless of grade point average. All other applicants must submit GRE aptitude scores, regardless of undergraduate grade point average, prior to enrollment in hours beyond twelve (12).

Requirements: Specialist Degree Applicants

Applicants for a specialist degree program must:

- A. Hold a master's degree from an accredited college or university.
- B. Have adequate preparation in the proposed field of specialization.
- C. Score not less than 800 on the Aptitude (verbal and quantitative combined) section of the Graduate Record Examination.
- D. Have a grade point average of not less than 3.25 on the first 30 semester hours of graduate work.
- E. Present to the Graduate College three letters of recommendation from graduate faculty and professional associates.

Applicants From Non-regionally Accredited Institutions

Graduates of non-regionally accredited, four-year educational institutions may be conditionally admitted to the Graduate College and considered for admission to a master's degree program with a minimum GRE Aptitude (verbal and quantitative combined) score of 800, 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

DEGREES AVAILABLE

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 hours (or the equivalent) in mathematics or logic).

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

A student with a combined verbal and quantitative GRE score of at least 1000 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.

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

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

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

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

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

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

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

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

Specialist in College Teaching. The Specialist Degree in College Teaching is offered in English and history.

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

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 by the completion of 12 hours and prior to enrollment in hours beyond 12 to be used on the degree program.

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

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

Admission to Candidacy. Candidacy status must be gained after completion of at least 12 hours and

prior to enrollment in hours beyond 21.

Final Examination. A final examination over coursework, thesis (under Plan A), and related materials must be satisfactorily completed.

Master of Arts in Education Degree

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

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

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

Research Tool. Not required.

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

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

Final Examination. A final examination over coursework, thesis (under Plan A), and related materials must be satisfactorily completed.

Master of Public Service Degree

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

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

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

Research Tool. Not required.

Thesis. The thesis is not required. Only the City and Regional Planning option and the Regional Development option have 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 the coursework (and thesis, if chosen) must be satisfactorily completed.

Specialist in College Teaching and Specialist in Education

Admission. Applicants must hold the master's degree (or the equivalent), must have a minimum grade average of 3.25 on the first 30 hours of graduate work and a combined score of at least 800 on the aptitude (verbal and quantitative combined) section of the Graduate Record Examination, and must submit three letters of recommendation (sent directly to the Graduate College) from professors and professional colleagues.

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

Program. The student's approved program (Form B) must be on file by

the completion of 12 hours and prior to enrollment in hours beyond 12 to be used on the degree program.

Residency. Two periods, consisting of a minimum of six hours each, of on-campus coursework must be completed. The student may meet this requirement in two summers, two semesters, or one summer and one semester. These 12 hours must be earned through traditional coursework (i.e., courses which may not be completed through independent study). The summer (11 weeks) will count as only one period in meeting this requirement.

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

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

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

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

The cooperative-doctoral is limited to the Ph.D. program with emphasis in aquatic biology or in chemistry of free radicals. Admission requires concomitant admission to the Graduate School of the University of Louisville and the Graduate College of Western Kentucky University. Admission requires completion of the appropriate application forms at each institution and the payment of a non-refundable application fee of five dollars (\$5.00)

to the University of Louisville, the transmission of one official transcript indicating adequate preparation and copies of two letters of recommendation to each Graduate College office, achievement of a combined score of at least 1,000 on the aptitude (verbal and quantitative) section of the Graduate Record Examination and a score at or above 40 on the Miller Analogies Test (to be sent to the University of Louisville), and approval by the graduate faculty members of both institutions.

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

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

Requirements include an entry examination over material from the broad field of biology or chemistry and a preliminary oral and/or written examination after completion of the major portion of the prescribed

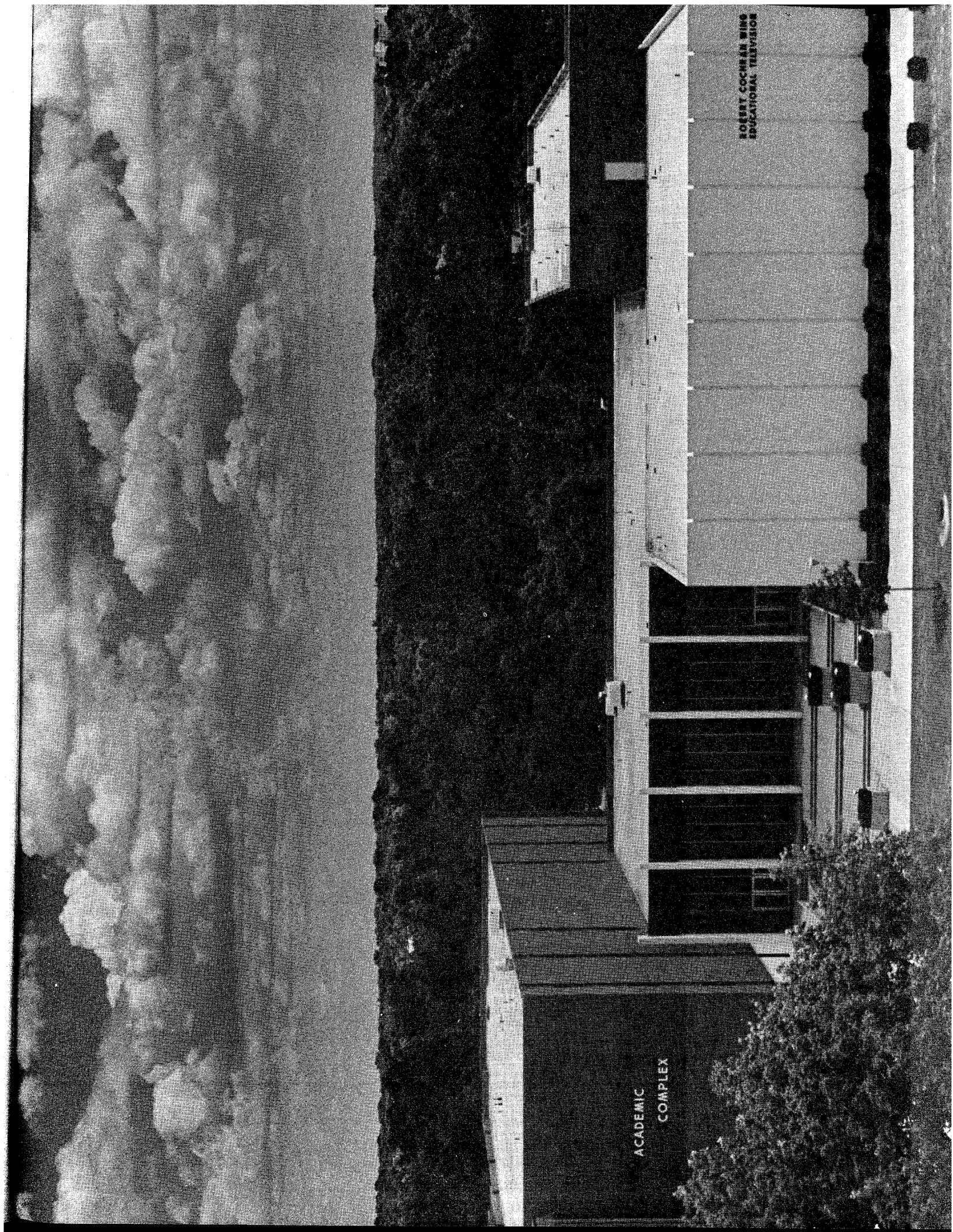
coursework. A reading knowledge of at least one modern foreign language must be demonstrated before admission to candidacy.

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

Joint-Doctoral with the University of Kentucky

Admission requires concomitant admission to the Graduate College at Western and to the Graduate School and doctoral program at the University of Kentucky. Application forms are available in the Graduate College at Western and, upon completion, are to be returned to the Dean of the Graduate College, Western Kentucky University. If fully qualified, the applicant's credentials will be forwarded to the University of Kentucky. Requirements for admission include a combined score of at least 1,000 on the aptitude section 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
COMPLEX

ROBERT COCHRAN BING
EDUCATIONAL TELEVISION

COLLEGE OF APPLIED ARTS AND HEALTH

DEPARTMENTS

Health and Safety

Home Economics and Family Living

Library Science and Instructional Media

DEGREES OFFERED

Master of Arts (Child Development and Family Living)

Master of Science (Communication Disorders, Health,
Library Science, Textiles and Clothing)

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

Health

Health and Safety

Home Economics Education

Library Science

Major Offered Under the Specialist in Education Degree

Vocational Home Economics

DEPARTMENT OF HEALTH AND SAFETY

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

J. David Dunn, Head

Graduate Faculty

Professor: D. Dunn

Associate Professors: H. Baughman, R. Baum, D. Carter,
M. Lockwood, G. Lohr, F. Price, J. Price, N. Schira

Assistant Professors: W. Higgins, P. Tanner

Degrees Offered: Master of Arts in Education (Health major and minor, Health and Safety major and minor), Master of Science in Health (Public Health).

The program leading to the Master of Arts in Education with a major or minor in health is designed to prepare students for positions as: (1) health educators in junior and senior high schools, (2) coordinators of school health programs, (3) administrators and supervisors of school health programs, and (4) health educators in community health agencies. The program leading to the Master of Arts in Education with a major or minor in health and safety is designed to prepare students for positions as: (1) teachers of driver education and health in high schools, (2) coordinators of health and safety programs, and (3) administrators of health and driver education programs. The applicant must hold a valid teaching certificate and have a minimum of a minor in health and safety. Applicants who hold a valid teaching certificate but have not completed a recognized minor in health and safety may be conditionally admitted if they have completed a minimum of 12 semester hours of undergraduate coursework in health and safety and/or related courses.

The program leading to a Master of Science in Health (Public Health) is designed to meet the needs of a wide range of professionals (e.g., public health educators, nurses, sanitarians and administrators, industrial health personnel, nutritionists, dental hygienists, and other allied health professionals) who desire graduate education in health. The flexibility of the program allows for individual

consideration of student needs, expectations, and career objectives. To pursue the Master of Science (Public Health), each applicant must submit at least a minor in health or adequate preparation in the sciences basic to health.

Master of Arts in Education (Health major or minor)

Students pursuing a major in health must complete 18 to 21 hours in health — including Health and Safety 520, 545, and 567. Both Plan A (thesis) and Plan B (non-thesis) are available. For a minor in health students must complete 12 to 15 hours in health, including Health and Safety 545 and 567. The additional hours in health must be chosen in consultation with the graduate advisor. The remaining coursework will be taken in professional education.

Master of Arts in Education (Health and Safety major or minor)

Students pursuing a major in health and safety must complete 18 to 21 hours in health and safety including Health and Safety 520, 545 and 567; 9 hours in safety and driver education, chosen in consultation with the graduate advisor; and 9 to 12 hours in professional education. Both Plan A (thesis) and Plan B (non-thesis) are available. For a minor in health and safety, students must complete 12 to 15 hours in health and safety — including Health and Safety 545, 567, 570 and 471G — and 15 to 18 hours in professional education. The additional hours in health and safety (for a major or minor) must be chosen in consultation with the graduate advisor.

Master of Science in Health (Public Health)

Students pursuing the Master of Science in Health must complete Health and Safety 481G, 520, 582, 583, and either 599 (Thesis) or 546 (Public Health Internship). The additional 12 hours of coursework will be chosen in consultation with the candidate's graduate committee and may be selected from the health and safety curriculum as well as related disciplines. The research tool requirements may be met by demonstrating (1) competency in research techniques or (2) reading proficiency in a foreign language.

Graduate Courses in Health and Safety

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| <p>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.</p> <p>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.</p> <p>530 Independent Investigations in Health and Safety. 1 to 3 hours.
Prerequisite: HI Sft 520.
Research problems or projects in the area of health and safety.</p> | <p>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.</p> <p>546 Field Work in Community Health Programs.
3 hours.
The philosophy, organization, and services of community health organization. Includes observation, and participation in, local community health programs. May be repeated once.</p> <p>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</p> | <p>the school and other community agencies.</p> <p>570 School and Community Safety Programs. 3 hours.
Responsibilities, activities, and problems of school and community safety programs. Emphasizes pupil transportation programs. Also includes home, fire, traffic and transportation, industrial and public safety.</p> <p>580 History and Philosophy of Public Health. 3 hours.
Development and scope of public health within an historical and philosophical context.</p> <p>581 Methods in Public Health Education. 3 hours.
The roles and functions of community health educators.</p> |
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- 582 Epidemiology: Practice and Theory.** 3 hours.
Prerequisite: 3 hours graduate level statistics.
Application of epidemiological principles to representative occurrences of communicable and noncommunicable disease. Emphasizes problem solving and interpretation.
- 583 Public Health Administration.** 3 hours.
Advanced concepts of organization, administration and management of public health agencies and programs.
- 584 Health Planning.** 3 hours.
Concepts and methods of health planning with emphasis on the "certificate of need" requirement and program evaluation.
- 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.
- 586 Health Economics.** 3 hours.
Economic principles applied to the study of health care facilities, health services and manpower.
- 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

- 443G Health Problems of the Aged.** 3 hours.
Covers ecological factors affecting human health and longevity, current health problems, and research on health and disease as they relate to the aged.
- 460G School and Community Health Workshop.** 3 hours.
Emphasizes the coordination of school and community health programs and personnel in seeking solutions for health problems.
- 461G School Health Organization.** 3 hours.
Standards and criteria for the three phases of the school health program: health services, healthful school environment, and health instruction. Emphasizes coordination of the total school health program. Visitation in public schools.
- 462G Folk Medicine.** 3 hours.
Historical circumstances, associations, and logic of traditional non-scientific medical practices.
- 463G Consumer Health.** 3 hours.
Benefits and/or hazards of and criteria for selection of health related products and services. Analysis of methods and techniques of health frauds. May include field trips.
- 465G Health and Safety in the Elementary School.** 3 hours.
Prerequisite: Three hours of health.

Nature and purpose of school health and safety in the elementary school, including curriculum development, instructional content areas, appraising students' health, and evaluation.

- 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.
- 469G Critical Issues in Health and Safety.** 3 hours.
Prerequisites: HI 260, 361 and PSY 250.
Research and discussion of specific local, national and world wide health and safety problems.
- 470G Driver Education and Traffic Safety II.** 3 hours.
Prerequisite: Sft 370 or equivalent.
Management of classroom and laboratory phases of the high school driver and traffic safety education program. Emphasizes simulation and range programs.
- 471G Advanced Studies in Driver Education.** 3 hours.
Prerequisite: Sft 370 or equivalent.
Advanced instructional technology to meet the needs of the driver and safety education program. Emphasizes behavioral approaches to traffic safety education.
- 481G Environmental Factors of Health Problems.** 3 hours.
The environment and its relationship to disease causation. Includes the ecology of health and disease, air and water pollution, insect vector and rodent control, noise pollution, population imbalance and consumer protection. Field trips required.

DEPARTMENT OF HOME ECONOMICS AND FAMILY LIVING

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

William Floyd, Head

Graduate Faculty

Professors: W. Floyd, L. Fong, D. Hayden, R. Hedges, M. Jenkins

Associate Professors: V. Atkins, S. Clark, S. Gibbs, W. Kleeman, V. Moore, J. Rasdall

Assistant Professor: D. Benardot

Degrees Offered: Master of Arts in Child Development and Family Living, Master of Arts in Education (Home Econom-

ics Education major and minor), Master of Science in Textiles and Clothing, Specialist in Education (Vocational Home Economics major).

Master of Arts in Child Development and Family Living

This degree is considered an intermediate step preparatory to entry into a doctoral program leading to college teaching, therapeutic activity and/or research. In addition to Graduate College requirements, the student must present an undergraduate record of B in the behavioral sciences and related disciplines. Applicants who do not have the B average but whose total score on the aptitude test of the Graduate Record Examination is at least 900 may be given provisional admission.

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

The research tool requirement may be met by: (1) demonstrating ability to read subject material in either French

or German, (2) completing specialized study in human biology and genetics, or (3) completing additional work in statistics and research methodology.

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

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

Master of Science in Textiles and Clothing

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

master's degree. 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 a basic courses in psychology, sociology, and chemistry. Other applicants may be conditionally admitted. Decisions regarding acceptability of coursework for admittance will be made by the graduate faculty in textiles and clothing.

The required 30 hours of graduate level credit must include HEFL 536, 537 and 12 additional hours of textiles and clothing coursework, a cognate field consisting of six hours as approved by the graduate committee, and a thesis on a specific area of textiles or clothing (Plan A) or six hours of approved coursework in lieu of thesis (Plan B). The research tool requirement usually involves specialized study in statistics and research methodology or demonstration of ability to read French.

Specialist in Education (Vocational Home Economics major)

See Department of Teacher Education.

Graduate Courses in Home Economics and Family Living

520 Seminar in Interior Design and Housing. 3 hours.
Prerequisite: Permission of instructor. Developments, trends, and designers in the fields of interior design, equipment, and housing.

521 Interior Ergonomics I. 3 hours.
Prerequisite: Permission of instructor. Sociological and psychological factors in interior design — separately, in relationship to each other, and in relationship to other disciplines.

522 Interior Ergonomics II. 3 hours.
Prerequisite: Permission of instructor. Cultural and anthropometric literature related to interior design; interrelationships between culture and anthropometrics.

531 Cultural Patterns of Dress. 3 hours.
Prerequisites: HEFL 132 and 431 or consent of instructor. In-depth analysis of literature and research related to cultural aspects of clothing. Specific cultural emphasis will vary.

533 Developing Fashion Merchandising Programs. 3 hours.
Prerequisite: HEFL 333 or consent of instructor. Principles, problems, and practices of curriculum, field experiences, and extended classroom activities related to fashion merchandising.

535 Textile Analysis and Interpretation. 3 hours.
Prerequisites: HEFL 435 and chemistry. Qualitative and quantitative techniques for physical and chemical analysis of textiles. Planning and conducting textile analyses and evaluating resulting data.

536 Seminar in Textiles and Clothing. 3 hours.
Prerequisite: Consent of instructor. Survey of technological, cultural, and educational developments in the textile and clothing field. Opportunity to pursue individual interest in either clothing, textiles, or merchandising.

537 Critique and Design of Investigations in Textiles and Clothing. 3 hours.
Prerequisite: Consent of instructor. Survey of textiles and clothing investigations. Critical evaluations of theses and research and design of potentially researchable problems.

572 Curriculum Development in Home Economics Education. 3 hours.
Curriculum trends in home economics education and curriculum development in specialized fields of home economics.

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 pre-service and inservice training of teachers in home economics. Emphasis on preparation of supervisory materials and evaluation.

575 Individual Study in Home Economics Education. 3 to 6 hours.
Evaluation of home economics investigations. Includes planning and completing an individual study of limited scope.

576 Theories of Child Development. 3 hours.
Prerequisite: One course in child psy-

chology, child development, or human growth and development. Critical analysis of cognitive, social-learning, maturational, and psycho-analytic 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.
Prerequisite: Consent of department head. Lectures on and demonstrations of contemporary theories and methods of treating couples, families and groups. Includes the theories of Rogers, Satir, Knox, Ellis, and Adler.

580 Internship in Marital and Family Therapy. 3 hours.
Prerequisite: HEFL 579. Counseling experience is provided during the final semester of enrollment. Assignments made to approved private and public agencies.

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.

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

- 420G Non-Residential Projects.** 3 hours.
Prerequisites: HEFL 385 or permission of instructor.
Planning of non-residential interiors including cost control, selection of furnishings, lighting, and presentation. Lecture-lab-field trips.
- 422G Textile Design II.** 3 hours.
Prerequisites: HEFL 120 and 221, or consent of instructor.
Historic and contemporary design. Applications for costume, home furnishings, and accessories.
- 423G Interior Design Architectural Survey: history and Components.** 3 hours.
Prerequisite: Permission of instructor.
Interface and interaction between architecture and interior design through history, with emphasis on the components involved. Includes folk architecture.
- 424G Specifying and Buying Interior Furnishings.** 3 hours.
Prerequisites: HEFL or permission of instructor.
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.
Prerequisite: Consent of instructor.
Costumes from ancient times to present; cultural and economic factors.
- 427G Presentation Techniques.** 3 hours.
Prerequisites: HEFL or permission of instructor.
Perspective and rendering materials and techniques used by interior designers.
- 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 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 Developments in Textiles.** 3 hours.
New developments 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.
Prerequisite: HEFL 130 or consent of instructor.
Interpretation and development of original designs through the media of flat pattern and/or draping.
- 437G Fashion and Design Study Tour.** 3 hours.
Prerequisite: Consent of instructor.
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.
Prerequisite: HEFL 464 or consent of instructor.
Ingredients and their function; factors involved in food preparation; evaluation of foods by objective measurements.
- 480G User-oriented Interior Design and Housing.** 3 hours.
Prerequisite: Permission of instructor.
Methods of determining user needs so that resultant interior design and housing may satisfy those needs.
- 481G Lighting Design.** 3 hours.
Prerequisite: Permission of instructor.
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.
- 482G Residential Energy Resources and Problems.** 3 hours.
Prerequisite: Permission of instructor.
Issues and trends in the supply and use of nonhuman energy resources. The roles and choices of space designers and consumers regarding design, selection, and use of housing, home furnishings, and appliances.
- 483G Household Equipment and Usage Factors.** 3 hours.
Prerequisite: Permission of instructor.
Materials, finishes, and design of household equipment. Emphasis on use, safety, and productivity.
- 484G Space and Activity Analysis.** 3 hours.
Prerequisite: HEFL 280, 382, or permission of instructor.
Includes concepts of time use and productivity as well as family economics and selected environmental components relative to housing interiors.
- 491G Family Life Education.** 3 hours.
Principles, practices, and content of family life education. Extension agents, social workers, and mental health professionals (in addition to teachers of family life education) may enroll.
- 492G Institution Food Preparation.** 3 hours.
Prerequisite: HEFL 391 or consent of instructor.
Basic food preparation principles applied to quantity food production and services. Standardization of recipes and procedures. (Lecture, 1 hour; practicum, 10 hours)
- 493G Institutional Purchasing.** 3 hours.
Prerequisite: HEFL 492.
Principles and methods of buying food and supplies for various types of quantity food services. Emphasis on specifications, standards, inventory, and factors affecting quality and cost control.
- 494G Applied Institution Administration.** 3 hours.
Prerequisites: HEFL 390 and 492.
Standard methods of quantity food production, menu planning, food cost determination, job analysis and problems involved in institution administration. Requires administrative responsibilities, under supervision. (Lecture, 1 hour; practicum, 10 hours)
- 495G Organization and Management of School Lunch Service.** 3 hours.
Prerequisites: HEFL 390 and 494. Sec Ed 370 is recommended.
Organization and management of single and multiple school lunch units including menu planning, purchasing records, equipment, and meal services.
- 496G Menu Planning and Merchandising for the Food and Lodging Industry.** 3 hours.
Prerequisite: HEFL 492.
Menu planning for group feeding, meeting nutritional needs of different age levels, portion costs, menu pricing, and merchandising.
- 497G Food and Labor Cost Control.** 3 hours.
Prerequisite: HEFL 390, principles of accounting, or consent of instructor.
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.
- 498G Special Topics in Home Economics and Family Living.** 1 to 3 hours.
Prerequisite: Consent 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.
- 499G Parenting Strategies.** 3 hours.
Major parenting approaches including Adlerian, behaviorist, and communication modalities. Emphasis upon specific parenting techniques along with the philosophical and developmental bases.

DEPARTMENT OF LIBRARY SCIENCE AND INSTRUCTIONAL MEDIA

MARGIE HELM LIBRARY
ROOM 3 (502) 745-3446

Vera Guthrie, Head

Graduate Faculty

Professors: J. Caskey, V. Guthrie, I. Simpson, E. Wassom

Assistant Professors: E. Counts, R. Smith, J. Sanders

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

Master of Science in 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 of 800 on the aptitude test of the Graduate Record Examination, and six hours of approved prerequisite work in library science from LSIM 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 whose GRE score is at least 700 may be admitted. Students having less than the required grade point average may be considered for admission provided their GRE 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 taking Ed Fnd 500, Research Methods, or its equivalent.

Students may select either of the two program options but must complete 406G, 408G, and 502 within the program.

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

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

The following options are available under this degree:

A. Elementary Education Curriculum (Library Science area of specialization)

When approved by the student's graduate advisory committee, 12 to 15 hours in the curriculum for elementary teachers can be applied toward the total requirements for certification as a public school media librarian.

B. Secondary Education Curriculum (Library Science major or minor)

This program provides courses for the school librarian. Students following it must meet all requirements for the standard high school certificate or the standard certificate for school media specialist. The library science major requires 18-21 hours in library science, while the minor requires 12-15 hours. The remaining hours will be taken in professional education courses.

Graduate Courses in Library Science and Instructional Media

501 Organization and Administration of the Instructional Materials Center. 3 hours.

Prerequisite: LSIM 401 and/or consent of instructor.

Role of the staff and the function of management in the organization and administration of instructional materials centers.

502 The Library in Society. 3 hours.

Types of libraries and their history, laws, standards, and inter-cooperation. Librarianship as a career, professionalism and the freedom to read.

504 The Media Center and the Computer. 3 hours.

Prerequisite: Eighteen hours of library science, including LSIM 401, 406, 408.

The use of computers in media centers on a local, national and commercial basis.

506 Cataloging of Non-Book Materials. 3 hours.

Prerequisite: LSIM 406 or equivalent. Classification and cataloging of motion pictures, filmstrips, slides, transparencies, phono-records, pictures, manuscripts, maps, microforms kits, etc.

508 Advanced Reference. 3 hours.

Prerequisite: LSIM 408 or equivalent. Reference materials in humanities, social science, history, pure and applied sciences, and general reference works in bibliography and library science.

509 Investigations in Library Science. 3 hours.

Prerequisite: 18 hours of LSIM, Ed Fnd 500 or the equivalent, and permission of graduate advisor. Independent investigation under the direction of a faculty member.

515 Government Publications. 3 hours.

Prerequisite: LSIM 408 or equivalent. Sources and types of government documents, both state and federal; their acquisition and organization for use.

518 Advanced Children's Literature. 3 hours.

Materials available to meet the needs of children including outstanding authors, illustrators, topical issues, and the reviewing of children's books.

519 Special Topics. 3 hours.

Special topics in the field of media services. May be repeated once with a different topic.

531 Media Facilities. 3 hours.

Basic considerations in the design of media facilities: equipment, illumination, electrical circuitry, flexible space, electronic learning labs, preparation of specifications, etc.

- 541 Seminar in Communications.** 3 hours.
Cross-listed with Communication and Theatre 541.
- 545 Instructional Graphics.** 3 hours.
Basic aesthetic understanding and skills needed for design and preparation of instructional graphics. Development of graphic vocabulary and techniques.
- 547 Instructional Technology.** 3 hours.
The systematic design, execution, and evaluation of the total process of information transfer. Emphasizes behavioral objectives and the appropriate combinations of human and non-human elements in facilitating optimum learning.
- 549 Instructional Media Photography.** 3 hours.
Expands and applies the basic principles of photography and the principles of design and graphics to the preparation of two- and three-dimensional visuals in slide and filmstrip formats.
- 590 Field Experiences.** 3 hours.
Guided experience and reading on the design, organization, and administration of media programs: activity log, field visits, projects and evaluation conferences.
- 599 Thesis Research and Writing.** 6 hours.
- 599c Maintaining Matriculation.** 1 to 6 hours.
- 401G Library Organization and Administration.** 3 hours.
Organization and administration of media for access and use; circulation and other library records; maintenance of the media collection; and service to patrons. Field trips may be required.
- 403G Books and Related Materials for Young People.** 3 hours.
Principles of selection; reading guidance; materials for information and recreation. Field trips may be required.
- 405G Recreational Reading, Listening, and Viewing.** 3 hours.
Emphasizes popular reading and viewing interests of adults in such areas as recreation, inspiration, self-improvement, and information. Field trips may be required.
- 406G Classification and Cataloging.** 3 hours.
Classification, descriptive cataloging, main entries, added entries, shelf list, and filing. Laboratory sessions.
- 407G Literature for Young Adults.** 3 hours.
Reading interests of young adults and study of selected titles. Methods of working with young adults in public and school libraries.
- 408G Reference and Bibliography.** 3 hours.
Study of bibliographies, indexes, dictionaries, encyclopedias, yearbooks, 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 Audio-Visual Materials and Methods.** 3 hours.
Theory relative to the best practices in audio-visual techniques. Laboratory experience. Cross-listed with Elementary Education.
- 446G Selection, Acquisition, and Evaluation of Non-Print Materials.** 3 hours.
Instruction and experience in locating sources of supply for non-print materials and use of appropriate selection aids; acquisition procedures and evaluative techniques appropriate to non-print materials. Cross-listed with Elementary Education.
- 447G Instructional Television for Media Specialists.** 3 hours.
Types of distribution systems, budgeting, personnel requirements, equipment operation and care, and classroom planning between teacher and media specialist. Laboratory experience.
- 463G Intercultural Communication.** 3 hours.
Cross-listed with Communication and Theatre.
- 470G Museum Procedures and Preservation Techniques.** 3 hours.
Cross-listed with Intercultural and Folk Studies.
- 475W-G Workshop in Library Science.** 1 to 3 hours.
One, two, and three week workshops designed primarily for practicing librarians.

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

COMMUNICATION DISORDERS

ACADEMIC COMPLEX, ROOM 118
(502) 745-5281

Stan S. Cooke, Director

Graduate Faculty

Associate Professor: S. Cooke

Assistant Professor: D. Rivers

Degree Offered: Master of Science in 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 of 800 on the Graduate Record Examination. Students without an undergraduate background in communication disorders will complete a total of 42 hours in the area to meet the National Association's academic requirements. A strong academic background in psychology is desirable.

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

The research tool requirement may be met by successful 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.

Graduate Courses in Communications Disorders

- 502 Motor Speech Disorders.** 3 hours.
The etiologies, communication characteristics, appraisal and treatment of motor speech disorders.
- 503 Advanced Diagnostic Procedures in Speech Pathology.** 3 hours.
Prerequisites: CD 481 or 481G and 485 or 485G.
Expansion of diagnostic theory and procedures utilized in clinical settings by the certified speech pathologist.
- 504 Seminar in Language Disorders of Childhood.** 3 hours.
Prerequisite: CD 481 or 481G and 483 or 483G or permission of instructor.
Language development disorders of children. Characteristics of normal as well as of delayed and disrupted language patterns and their differential diagnosis.
- 505 Communication Disorders of Cleft Palate and Cerebral Palsy.** 3 hours.
Prerequisite: CD 481 or 481G.
Etiology, diagnosis, and management of speech and language dysfunctions associated with cleft palate and cerebral palsy.
- 506 Dysfluency.** 3 hours.
Prerequisite: CD 481 or 481G.
Research review in the field of dysfluency, including cluttering and stuttering. Emphasis on etiology and clinical management of all fluency disorders.
- 507 Dysphasia.** 3 hours.
Prerequisite: CD 481 or 481G.
Dysphasia — including symptomatology, etiology, differential diagnosis, and training, with primary emphasis on adult problems.
- 508 Voice Disorders.** 3 hours.
Prerequisites: CD 481 or 481G and 484 or 484G.
Diagnosis and remediation techniques of voice disorders in childhood and adulthood. Rehabilitation of the laryn-

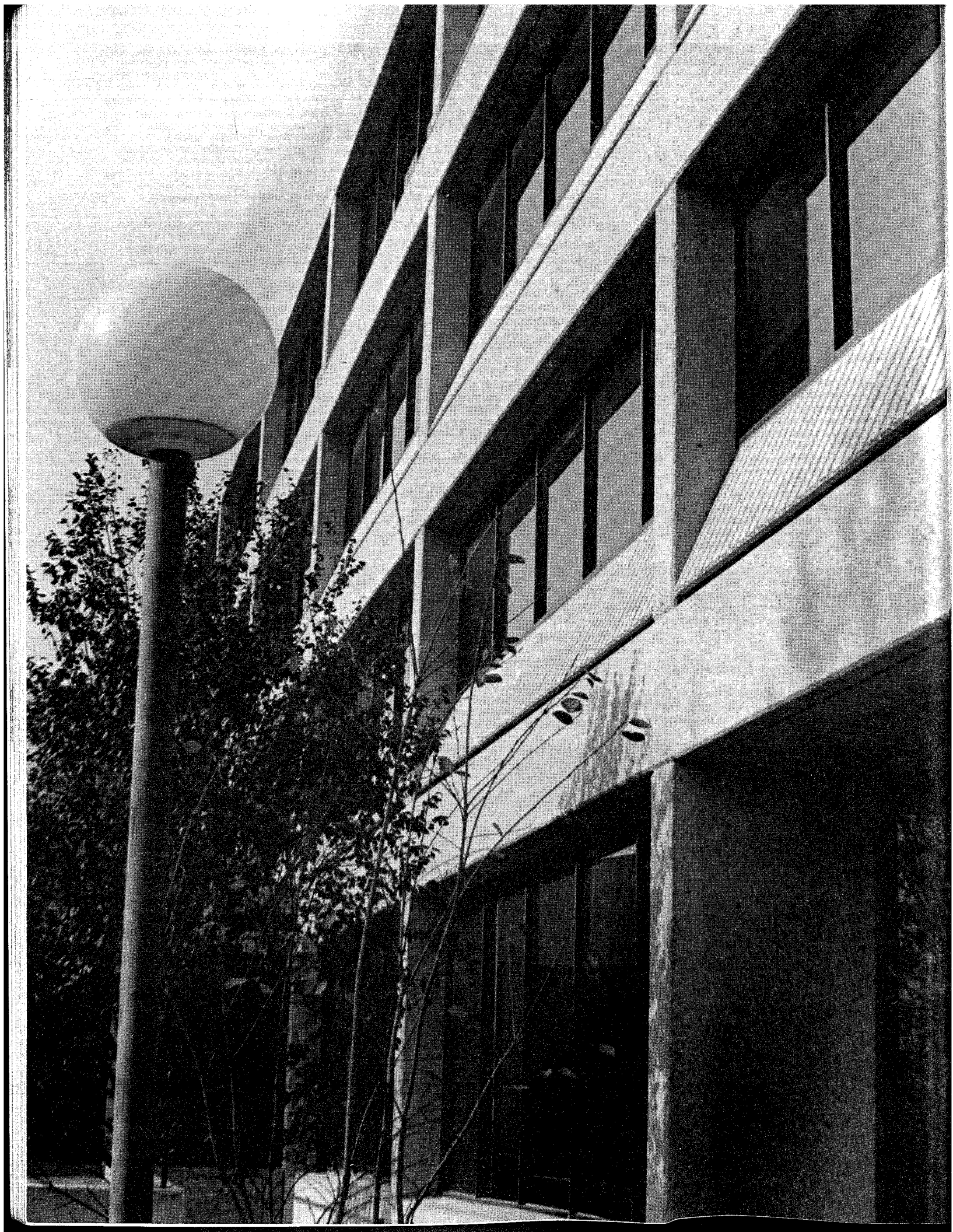
gectomized client, with emphasis on the development of esophageal speech or the use of the electro-larynx as a substitute voice.

- 509 Speech Science.** 3 hours.
Contemporary research in the area of speech science.
- 510 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.
- 511 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.
- 580 Diagnostic Procedures in Speech Disorders.** 1 hour.
Identification of speech disorders and treatment available.
- 590 Clinical Practicum in Speech Pathology.** 1 hour.
Advanced, supervised, clinical practicum. Clinical experience with the more acute communication disorders. Must be repeated for a total of three (3) hours.
- 599 Thesis Research and Writing.** 6 hours.
- 599c Maintaining Matriculation.** 1 to 6 hours.

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

- 481G Introduction to Speech Pathology.** 3 hours.
The development of speech and language; cause and treatment of the simpler deviations from normal speech and language; identification of and remedial suggestions for the more common speech problems.
- 482G Audiology.** 3 hours.
The anatomy of hearing, causes of loss of hearing, and introduction to the methods of testing, analysis, and rehabilitation of people of all ages with hearing loss.
- 483G Articulation Disorders.** 3 hours.
The etiology, evaluation, and management of articulatory disorders in children and adults.
- 484G Speech Anatomy and Physiology.** 3 hours.
Structures and functions which comprise the speech mechanism and its relation to the production and development of speech and language.
- 485G Introduction to Diagnostic Procedures in Communication Disorders.** 3 hours.
Theory and utilization of the most common screening and diagnostic techniques in speech pathology. Evaluation procedures for all communicative dysfunctions.
- 486G Language Disorders.** 3 hours.
Identification, diagnosis, evaluation, and treatment techniques to be used with language disorders — specifically, aphasia and delayed language problems.
- 487G Aural Rehabilitation.** 3 hours.
Principles and procedures of communication and amplification systems for the hearing impaired.
- 488G The Stuttering Child.** 3 hours.
The etiology and diagnosis of and treatment programs for stuttering in children.
- 489G Geriatric Communication Disorders.** 3 hours.
Prerequisites: Biol 131, HL 443, or permission of instructor.
Causes, symptoms and treatment of speech, language and hearing disorders in the aged population.
- 490G Clinical Practicum in Speech.** 3 hours.
Supervised clinical experience, including individual and group therapy.





COLLEGE OF ARTS AND HUMANITIES

DEPARTMENTS

Art

Communication and Theatre

English

Folk and Intercultural Studies

Foreign Languages

History

Journalism

Music

Philosophy and Religion

DEGREES OFFERED

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

Master of Music

Specialist in College Teaching (English, History)

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

Art

Communication

Drama/Theatre

English

English and Allied Language Arts (major only)

Folk Studies (minor only)

Foreign Languages (German, French, Spanish)

History

Music

Social Science (major only)

DEPARTMENT OF ART

IVAN WILSON CENTER
ROOM 441 (502) 745-3944

Joseph W. Gluhman, Head

Graduate Faculty

Professors: J. Gluhman, E. Monroe, N. Peterie, W. Stomps,
L. Wallace, W. Weaver

Associate Professors: H. Custead, L. Fernandez,
C. Forrester, J. Oakes, I. Schieferdecker

Assistant Professor: M. Klein

DEGREE OFFERED: Master of Arts in Education (Art major or minor)

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

Graduate Courses in Art

500 History of Architecture and Sculpture During the Middle Ages. 3 hours.
Architecture and sculpture during the Middle Ages. Selected individual research problems.

501 History of Painting During the Middle Ages. 3 hours.
The history of painting during the Middle Ages. Lecture and independent study.

511 Investigations in Art Education. 3 hours.
Independent study in art curriculum and methodology, with emphasis on the literature, selected art history, and studio areas.

512 Investigations in Art Education. 3 hours.
Independent study in art curriculum and methodology (including art history and studio). Emphasizes the use of surveys, observations, and experimental techniques.

520 Ceramic Art. 3, 6, 9 hours.
Prerequisite: Art 422 or 422G, or permission of instructor.
Advanced levels of clay forming techniques and clay glaze composition. Research in various phases of the ceramic process.

540 Drawing. 3, 6, 9 hours.
Prerequisites: Art 440 or 440G, or permission of instructor.

Independent study utilizing traditional methods of drawing. Students are encouraged to investigate and utilize new directions.

550 Printmaking. 3, 6, or 9 hours.
Prerequisite: Art 452 or 452G, or permission of instructor.
Independent study utilizing traditional methods of printmaking. Encourages the investigation of new directions in personal expression.

560 Painting. 3, 6, or 9 hours.
Prerequisite: Art 462 or 462G, or permission of instructor.
Advanced aspects of painting, with emphasis on experimentation in different schools of painting and on individualized approaches.

570 Sculpture. 3, 6, or 9 hours.
Prerequisite: Art 472 or 472G, or permission of instructor.
Independent study and experimentation in sculpture.

580 Weaving. 3, 6, or 9 hours.
Prerequisite: Art 482 or 482G, or permission of instructor.
Individual study of weaving utilizing traditional and experimental techniques; the production of works that are highly individualistic and are of exhibition quality.

590 Seminar in Contemporary Art. 3 hours.
Critical analysis (written and oral) of

current trends in ceramics, drawing, painting, printmaking, sculpture, weaving, and other media.

591 Investigations in Art History. 3 hours.
Prerequisites: Nine hours of art history or permission of instructor.
Topics and approaches for special areas of interest. Emphasis on the traditional periods of art history.

599 Thesis Research and Writing. 6 hours.

599c Maintaining Matriculation. 1 to 6 hours.

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

401G Art in the Italian Renaissance.

402G American Architecture.

420G, 421G, 422G Ceramics.

440G Drawing.

450G, 451G, 452G Printmaking.

460G, 461G, 462G Painting.

470G, 471G, 472G Sculpture.

480G, 481G, 482G Weaving.

490G, 491G Special Problems.

DEPARTMENT OF COMMUNICATION AND THEATRE

IVAN WILSON CENTER
ROOM 130 (502) 745-3296

Regis O'Connor, Head

Graduate Faculty

Professors: R. Capps, R. O'Connor

**Associate Professors: C. Anderson, D. Combs, C. Dodd,
C. Kell, W. Leonard, E. Rudolph, J. Wesolowski**

**Assistant Professors: J. Kesler, J. Pearse, L. Ruff,
D. Wicklander, L. Winn**

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

Master of Arts in Communication

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

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

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

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

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

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

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

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

Graduate Courses in Communication

- 500 Speech Communication Internship.** 3 hours.
Practical experience in a speech communication situation. On-site guidance from a coordinator within the organization.
- 501 Introduction to Graduate Study in Communication and Theatre.** 1 hour.
Nature and uses of research. Methods and career curricular information regarding the various areas of communication and theatre.
- 521 Evaluation of Mass Communication.** 3 hours.
Criteria for determining the social responsibility of and for judging the performance of the mass media in America. Principal recurring schema used to evaluate the mass communication process.
- 522 Seminar in Mass Communication.** 3 hours.

- Selected topics in mass communication theory and practice: mass communication history, mass communication law and regulation, popular culture, message characteristics, etc. May be repeated with a different topic.
- 540 Seminar in Rhetoric and Public Address.** 3 hours.
Theories of rhetoric and the application of rhetorical standards to selected speakers, movements, areas and periods. May be repeated with a different topic.
- 541 Seminar in Communication.** 3 hours.
Selected topics in communication theory: interpersonal communication, persuasion and attitude changes, non-verbal communication, small group communication, language behavior, etc. May be repeated with a different topic.
- 544 History and Theory of Interpretation.** 3 hours.
History and development of interpretive theory from ancient times to the present.

Use and developments of the interpreter's art, with analysis of contemporary principles and practices.

- 545 Seminar in Speech.** 3 hours.
Content will vary. If offered as independent study, an area of individual interest may be pursued. If offered as a class, timely topics will be covered.
- 546 Seminar in Forensics.** 3 hours.
Principles and procedures involved in directing the standard forensic events such as debate, extemporaneous speaking, discussion, original oratory, analysis of a public address. Also includes interpretative reading, duet acting, and story telling.
- 549 Rhetorical Theory and Criticism.** 3 hours.
Development of the classical tradition in rhetorical theory, practice, criticism, and pedagogy, from pre-Aristotelian writings through twentieth century British and American theorists.

- 565 Seminar in Broadcasting.** 3 hours.
Topical issues in the field of broadcasting. Individual student research and subsequent class discussion. Primary research methods and resources will be reviewed.
- 599 Thesis Research and Writing.** 6 hours.
- 599c Maintaining Matriculation.** 1 to 6 hours.

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

- 400G Historical Studies in Communication.** 3 hours.
Research methodologies in communication and theatre.
- 401G History of Broadcasting in America.** 3 hours.
Historical factors in the development of primary means of contemporary print and broadcast mass communications; background data on the creation, adoption and diffusion of mass media in America.
- 405G Phonetics.** 3 hours.
Speech sounds, their production, and acoustic properties.
- 440G Experimental Studies in Communication** 3 hours.
Research design, procedures, and reporting. Critical examination of experimental studies in various areas of communication.
- 441G Advanced Oral Interpretation: Prose.** 3 hours.
Study of poetry with emphasis on differentiation of types of oral performance.
- 443G Contemporary Rhetoric and Public Address.** 3 hours.
Contemporary theories of rhetoric and persuasion as they relate to public address. Also includes analysis of contemporary public address.
- 444G Advanced Oral Interpretation: Poetry.** 3 hours.
An analysis of prose fiction (short story, novella, novel) with emphasis on point of view, tone, and characterization in oral performance.
- 445G Research in Speech and Theatre.** 3 hours.
Usually offered as an independent study.
- 446G Classical Rhetoric.** 3 hours.
Greek and Roman theories of rhetoric: Plato, Aristotle, Cicero, and Quintillian.
- 447G American Public Address.** 3 hours.
Study and evaluation of selected speakers from American history.
- 448G Kentucky Oratory.** 3 hours.
Prerequisite: Com 447 or His 456.
Studies speakers of influence in Kentucky and provides an overview of oratory from political, religious and social issues.
- 449G Speech Development.** 3 hours.
Speech as a teaching tool. Minor problems in voice control, articulation, and pronunciation.

- 461G Organization Communication.** 3 hours.
Theoretical examination of rhetorical principles operant in modern organizational communication systems.
- 463G Intercultural Communication.** 3 hours.
Dimensions of communication theory that apply across cultural boundaries, including anthropological and linguistic perspectives. Cross-listed with LSIM.

Graduate Courses in Theatre

- 547 Instructional Technology.** 3 hours.
Cross-listed with LSIM.
- 550 Seminar in Theatre.** 3 hours.
Provides theatre experience through research and application. Individual investigation of interpretative, technical, or promotional problems.
- 552 Dramatic Theory and Criticism.** 3 hours.
Theories and practices within the theatre from Aristotle to present, criteria for critical analysis.
- 553 Restoration and Eighteenth Century Drama.** 3 hours.
Representative plays, evaluation of influences, movements, and productions. Reading and individual study.
- 554 Theatre Styles.** 3 hours.
Major stylistic impulses that have influenced the nature of drama and theatrical production within the Western World.
- 583 Shakespeare II.** 3 hours.
(See English 583)

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

- 431G Musical Theatre.** 3 hours.
Development of the musical theatre; the style and form of its music, dance and drama; and its impact on the modern theatre.
- 435G Puppet Theatre.** 3 hours.
Puppets, muppets and marionettes with emphasis on history, construction, operation, and performance.
- 450G Readers Theatre.** 3 hours.
Prerequisite: Sp 349 or permission of instructor.
Methods of group oral interpretation of literature with emphasis on the short story, poetry, and drama. Includes analysis of literature, preparation of Readers Theatre and Chamber Theatre scripts, and performance in class projects.
- 451G Design of Stage Costuming.** 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.
- 452G Stage Lighting.** 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.

- 453G Historic Costume for the Stage.** 3 hours.
Prerequisite: Theatre 251.
Historic costumes of the major periods of theatrical production. Covers the costumed actor's problems with manners and movements.
- 454G Theatre Management.** 3 hours.
Principles of management applied to fields of theatre operation, production preparation, and performance.
- 455G American Drama.** 3 hours.
Development of American drama from the colonial period to the present. An overview of American drama and the works of major American playwrights of the past forty years.
- 456G Elizabethan Drama.** 3 hours.
Intensive study of the immediate predecessors and contemporaries of Shakespeare.
- 457G Directing.** 3 hours.
Interpreting and directing the play, laboratory experience in connection with the college theatre program.
- 458G Theatre Practicum.** 3 hours.
Reading of plays and dramatic materials; staging methods; script selection for production; prompt script with analysis of director's research; individual interpretation and production plans; final production.
- 459G Modern Drama.** 3 hours.
Dramatic literature since Ibsen, with emphasis on evolving developments and trends in world theatre.
- 460G Theories of Directing.** 3 hours.
Evolution of the modern director and the theoretical and practical bases of contemporary stage directing.
- 499G Studies in British Theatre.** 3 hours.
Viewing of representational plays of the English theatre and visitation to supplementary historical and cultural sites.

DEPARTMENT OF ENGLISH

CHERRY HALL
ROOM 135 (502) 745-3043

James S. Flynn, Head

Graduate Faculty

Professors: H. Bowen, N. Davis, W. Fridy, J. Heldman,
L. Little, G. McCelvey, D. McMahon, W. McMahon,
R. Miller, F. Steele, R. Ward, W. Wood

Associate Professors: M. Bruner, J. Flynn, J. Glaser,
J. Lewter, C. Mosby, J. Survant

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).

Master of Arts in English

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

Both Plan A (Thesis) and Plan B (non-Thesis) are available. Plan A requires 24 hours of coursework and the 6-hour thesis. Plan B requires 33 hours of coursework. In either plan, 6 hours of coursework may be in a related field such as drama, English history, foreign literature, mass media, philosophy, or communication. Courses in each program must meet departmental requirements, a list of which is available from the English Graduate Advisor. The research tool, under both plans, may be met by demonstrating proficiency in a foreign language or by completing English 520. If English 520 is designated as the research tool, it may not be included in the credit hours required for the degree.

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

Graduate Courses in English

503 Linguistics and Transformational Grammar. 3 hours.
History and development of modern grammar and linguistic principles, a review of current professional writers, and an introduction to the various "new" grammars.

520 Bibliographical and Methodological Studies in Literature. 3 hours.
Basic bibliography and bibliographical problems; research methods requisite for the M.A. thesis and scholarly publications; methodologies of recent critical essays.

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

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

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

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

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

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

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

Specialist in College Teaching (English major)

This program is designed to prepare students for teaching in a two-year or four-year college. It is intended for students who want extensive preparation for a teaching career without the heavier research emphasis of a traditional Ph.D. program. In addition to meeting Graduate College requirements for admission to the program, the applicant must have earned at least 18 hours of graduate work in English with a minimum GPA of 3.25.

The 30-hour degree program includes traditional courses and seminars in English, a teaching internship, a specialist project resulting in a scholarly paper, and a final comprehensive examination. The student may earn six to nine hours in a related field such as history, folklore, philosophy, literature in a foreign language, or drama, provided that the student will accumulate at least 48 graduate hours in English, with 21 hours concentrated either in American literature or in English literature.

- 560 Literary Criticism II.** 3 hours.
Critical theory and practice of significant literary critics of the Western world from the Romantic period to the present.
- 581 Readings in Old English.** 3 hours.
Introduction to Anglo-Saxon vocabulary, grammar, and literary devices. Readings in the original and in translation.
- 582 Middle English Literature.** 3 hours.
Non-Chaucerian English literature of the Middle English period. Language of the period reviewed.
- 583 Shakespeare II.** 3 hours.
Selected comedies and histories. Individual research in literary criticism.
- 585 Milton.** 3 hours.
The writings of John Milton, with emphasis on his poetic works.
- 586 Seminar in British Writers.** 3 hours.
Content varies. Selected works or writers. Majors may repeat course once with different topic.
- 587 Wordsworth and Keats.** 3 hours.
The major works of these two writers and an evaluation of their contributions to the Romantic Movement.
- 588 Modern British Poetry.** 3 hours.
Detailed study of the works of major twentieth century British poets.
- 591 Emerson, Thoreau, and Whitman.** 3 hours.
Selected works, cultural backgrounds, and contributions of these writers.
- 592 The Age of Twain and James.** 3 hours.
Realism and naturalism in American literature. Emphasis on Twain, James, and their contemporaries.
- 593 Poe, Hawthorne and Melville.** 3 hours.
Selected works, cultural backgrounds, and contributions of these writers.
- 594 Contemporary Fiction.** 3 hours.
Selected major figures and their works. Consideration of movements, influences, developments since 1900.
- 596 Seminar in American Writers.** 3 hours.
Varies according to assigned instructor and student's needs. Usually covers group of writers, or one major writer.
- 598 Problems in English.** 2 or 3 hours.
Supervised research on literary or linguistic problems.
- 599 Thesis Research and Writing.** 6 hours.
- 599c Maintaining Matriculation.** 1 to 6 hours.
- 699 Specialist Project.** 6 hours.
- 699c Maintaining Matriculation.** 1 to 6 hours.
- 404G The History of the English Language.** 3 hours.
Origin and development of the language from Indo-European to Modern English, with emphasis on developments in the sound system, vocabulary, and grammar; historical and cultural forces which have affected the language.
- 405G Phonetics.** 3 hours.
Speech sounds, their production and acoustic properties.
- 407G Descriptive Linguistics.** 3 hours.
Current linguistic theory which includes the important levels of language as a means of communication; various theories and applications of linguistic theory to other fields of study.
- 455G American Drama.** 3 hours.
See Department of Communication and Theatre.
- 456G Elizabethan Drama.** 3 hours.
See Department of Communication and Theatre.
- 458G Modern British Novel.** 3 hours.
Techniques and rationale in representative works of major British novelists from Joseph Conrad to the present. Intellectual climate of the period.
- 459G Modern Drama.** 3 hours.
See Department of Communication and Theatre.
- 460G Literary Criticism I.** 3 hours.
Critical theory and practice of significant literary critics of the Western world from the Greek and Roman periods through the English Neo-Classical period.
- 469G Introduction to Teaching English as a Second Language.** 3 hours.
Theories, methods, and materials for teaching English as a second or foreign language.
- 481G Chaucer.** 3 hours.
Representative works of Chaucer; backgrounds; outside readings and reports.
- 482G Shakespeare I.** 3 hours.
Selected major Shakespearean plays read and studied in the light of the Elizabethan period as representing typical dramatic writing and production.
- 483G The English Renaissance.** 3 hours.
Non-dramatic literature of the Renaissance, with emphasis on Spenser.
- 484G The Romantic Movement.** 3 hours.
Background and phases of romanticism; representative exponents of the Romantic Movement.
- 485G The Seventeenth Century.** 3 hours.
Seventeenth century literature, forms, and developments.
- 486G The Eighteenth Century.** 3 hours.
Eighteenth century literature, forms, and developments.
- 487G Victorian Prose.** 3 hours.
Major prose writers of the Victorian period. Also covers political, social, and economic movements to show the interrelationships between the culture of the era and its literature.
- 488G Victorian Poetry.** 3 hours.
Major poets of the Victorian period. Also covers political, social, and economic movements to show the interrelationships between the culture of the era and its literature.
- 489G The English Novel.** 3 hours.
Technique and history of the novel. Several representative novels studied.
- 490G The American Novel.** 3 hours.
The American novel from Cooper to the present. History, general development, and technique. Several representative novels studied.
- 493G Major American Poets.** 3 hours.
The major poems, the styles, and the poetic intent of the most important American poets from Poe to the present.
- 495G Southern Literature.** 3 hours.
Covers major, minor, and "regional" writers of the South.

DEPARTMENT OF FOLKLORE AND INTERCULTURAL STUDIES

GORDON WILSON HALL
ROOM 304 (502) 745-3111

Lynwood Montell, Head

Graduate Faculty

Professors: J. Crowe, J. Miller, L. Montell

Associate Professor: B. Feintuch

Assistant Professor: C. Collins

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

- 401G Advanced Composition.** 3 hours.
Study and practice in various forms of writing and rhetorical principles.

Degree Offered: Master of Arts in Folk Studies, Master of Arts in Education (Folk Studies Minor)

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

Master of Arts in Folk Studies

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

Plan A (thesis)

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

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

The research tool requirement may be met by demonstrating proficiency in foreign language or by completing FS 578. The student must also pass a comprehensive written examination.

Plan B (non-thesis, Historic Preservation)

The historic preservation concentration is designed to provide a firm grounding in the multiple facets of historic preservation theory and practice. Coursework in folk studies will be complemented by coursework in several cooperating departments including geography and geology, history, and art.

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

Plan B 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 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 electives to be selected with advisor approval.

The research tool requirements are the same as for Plan A. The students must also pass a written examination that covers both folk studies and historic preservation.

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 American Folklore.** 3 hours.
An overview of American folklore fields: myths, legends, folktales, folksongs, proverbs, beliefs, customs, folk speech, material culture, etc. Not recommended for folk studies majors.
- 570 Appalachian Folklore and Folklife.** 3 hours.
Folklife and culture of the Upland South, with emphasis on verbal and material traditions.
- 571 Folk Narrative.** 3 hours.
A survey of narrative genres of folklore and applicable scholarship.
- 572 Applied Folklore.** 3 hours.
Folklore concepts and methods as application-oriented research and public sector concerns with emphasis on social, medical, governmental, and educational programs. Includes relationships with other applied disciplines.
- 573 Seminar in Interpretation of Myth.** 3 hours.
Principal contemporary modes of research and interpretation of myth.

- 574 Urban Folklore.** 3 hours.
Folkloric and cultural aspects of urban America, with emphasis on the traditions of ethnic, immigrant, occupational, and subcultural segments.
- 576 American Traditional Song.** 3 hours.
Interdisciplinary examination of American folksong and folkmusic including ethnic, regional, and occupational manifestations. Emphasis on both conventional genres and cultural contexts.
- 577 Folklore Theories and Techniques.** 3 hours.
Folklore scholarship, its historical development, and its principal bibliographical materials and their uses.
- 578 Folklore Fieldwork and Oral History.** 3 hours.
Examination of and practical experience in theories and techniques of folklore fieldwork and oral history.
- 579 Directed Study and Research in Folklore.** 3 hours.
Prerequisite: FS 578 or demonstrated ability to work independently.

Supervised individual study under the direction of a member of the folklore graduate faculty. Cross-listed with Anthropology 579.

- 580 Folklore Conversation and Communication.** 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.
- 589FS Internship in Folk Studies.** 3 hours.
Supervised work situation with a cooperating business, industry, social or governmental agency, emphasizing application of advanced knowledge and skills in folk studies.
- 589HP Internship in Historic Preservation.** 3 hours.
Supervised work situation with a cooperating business, industry, social or governmental agency, emphasizing application of advanced knowledge and skills in historic preservation.
- 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

- 462G Folk Medicine.** 3 hours.
Historical circumstances, associations, and logic of traditional non-scientific medical practices. Cross-listed with Health and Safety.
- 470G Museum Procedures and Preservation Techniques.** 3 hours.
Essential aspects of museums and of preservation, i.e., collecting, preserving, researching, exhibiting, and interpreting material culture. Cross-listed with Library Science.
- 476G The Ballad.** 3 hours.
Narrative folksong in the English-speaking world.

- 477G Folk Arts and Technology.** 3 hours.
Folklife research and selected world culture groups, with emphasis on pre-industrial folk crafts, technology, and architecture in the United States. Special reference to northwest European antecedents, sources, and parallels.
- 478G Folklore in Literature.** 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.

- 480G Directed Independent Study in Afro-American Topics.** 1 to 3 hours.
Selected topics dealing with the life and times of the people of African ancestry in Africa and the Americas.
- 490G Afro-American Seminar.** 3 hours.
Topics dealing with the African or Afro-American, past and present.

Afro-American Studies

Interdisciplinary Courses Recommended for Graduate Students in Folk Studies

Anthro 440G, 507, 555
Comm 541, 463G
Eng 583, 481G
Geog 530, 560, 430G
Soc 410G

DEPARTMENT OF FOREIGN LANGUAGES

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

C.P. Brown, Head

Graduate Faculty

Professors: C. Brown, P. Hatcher, J. Miller

Associate Professors: J. Babcock, T. Baldwin, R. Martin, R. Padilla

Degrees Offered: Spanish—Master of Arts, Master of Arts in Education (Spanish major or minor). French—Master of Arts in Education (French major or minor). German—Master of Arts in Education (German major or minor).

Master of Arts in Spanish

This program prepares students for teaching Spanish at the junior or senior college level, for pursuing doctoral study, for meeting certification standards, and for meeting vocational objectives requiring proficiency in Spanish.

In addition to meeting Graduate College admission requirements, the student must have completed the

equivalent of an undergraduate minor in Spanish (18 hours above the elementary year), including an introductory course in Hispanic literature, with approximately a 3.0 (4.0) average in this field. Deficiencies must be made up within one year without graduate credit.

Under Plan A (thesis), a minimum of 24 hours of acceptable coursework and a thesis are required. Under Plan B (non-thesis), a minimum of 30 hours of acceptable coursework must be completed. With the approval of the graduate advisor, six hours may be taken in the following related fields: another foreign language (modern or classical), English, history of Spain or a Spanish speaking area, and other fields which clearly relate to the Hispanic interest. At least nine of the required 18 hours of coursework in Hispanic literature or language and three of the additional six hours must be at the 500-level or above.

An examination over coursework and the thesis, if elected, must be completed. Prior to taking the final examination the student must demonstrate reading ability sufficient to do scholarly research in another language, modern or classical, which meets the approval of the Department Head.

Master of Arts in Education

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

Graduate Courses in Foreign Languages

French

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| <p>520 Seminar in French Literature or Language. 3 hours.</p> | <p>524 Nineteenth Century French Novel. 3 hours.</p> <p>526 Modern French Poetry. 3 hours.</p> | <p>529 Seminar in French Literature. 3 hours.</p> <p>590 Comparative Romance Linguistics. 3 hours.</p> |
|--|--|--|

- 599 **Thesis Research and Writing.** 6 hours.
- 599c **Maintaining Matriculation.** 1 to 6 hours.
- 600 **Seminar in College Teaching.** 3 hours.

German

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

Spanish

- 570 **Literature of Spain's Golden Age.** 3 hours.
Prose fiction, drama and poetry during the period 1479 to 1635.
- 572 **Nineteenth Century Literature.** 3 hours.
The novel, drama and poetry in nineteenth century Spanish literature.
- 575 **Twentieth Century Prose.** 3 hours.
The novel and the essay of the Generation of '98 and the novel of the post-civil war period in Spain.
- 576 **Twentieth Century Poetry and Drama.** 3 hours.
The drama of Spain from the Generation of '98 through the contemporary period, with emphasis on Benavente and Garcia Lorca. Poetry from the Modernists through the contemporary period, with emphasis on Jimenez, Machado, and Garcia Lorca.
- 578 **Seminar in Hispanic Literature or Language.** 3 hours.
May be repeated once.
- 590 **Comparative Romance Linguistics.** 3 hours.
- 599 **Thesis Research and Writing.** 6 hours.
- 599c **Maintaining Matriculation.** 1 to 6 hours.
- 600 **Seminar in College Teaching.** 3 hours.

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

French

- 420G **Advanced French Composition and Stylistics.** 3 hours.
Prerequisite: Fr 320.
Creative self-expression, refinement of grammatical understanding, the art of translation, and stylistic devices.
- 421G **Advanced French Conversation.** 3 hours.
Prerequisite: Fr 321.
Discussion on assigned topics and reports on current newspaper and magazine articles. Special emphasis on idiomatic expression.

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

- 423G **Seventeenth Century French Literature.** 3 hours.
Prerequisite: Fr 325.
Literature of the period, focusing on the works of Corneille, Racine, and Moliere and the development of classic theory beginning with Malherbe.

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

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

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

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

German

- 430G **Advanced Written German.** 3 hours.
Prerequisite: Ger 330.
Covers selection of vocabulary and sentence structure appropriate to letters, reports, essays and descriptions.
- 431G **Advanced Spoken German.** 3 hours.
Prerequisite: Ger 331.
Practical in oral German with emphasis on student discussion of literary, cultural, and political topics.
- 432G **History of the German Language.** 3 hours.
Prerequisite: Ger 330 or permission of instructor.
Emphasis on the relationship of German to the Indo-European and other Germanic languages and upon the development of modern standard German from the earliest recorded documents.
- 434G **Survey of Nineteenth Century German Literature.** 3 hours.
Prerequisite: Ger 334.
The major writers of Romanticism, Biedermeier, and Realism with emphasis on prose and drama.
- 435G **Twentieth Century German Literature.** 3 hours.
Prerequisite: Ger 334.
Major German, Austrian and Swiss writers, with emphasis on prose and drama.
- 436G **German Literature of the Classical Period.** 3 hours.
Prerequisite: Ger 334.

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

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

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

Latin

- 450G **Seminar in Latin Literature.** 3 hours.
Prerequisite: Latin 252 or equivalent.
May be repeated once.

Russian

- 465G **Soviet Literature.** 3 hours.
Prerequisite: Rus 261.
Major fiction writers and literary trends since 1917. Lectures, readings and reports.
- 469G **Studies in Russian Literature or Language.** 3 hours.
Prerequisite: Rus 261 or equivalent.
May be repeated once.
- 496G **Russian Literature in Translation.** 3 hours.
Prerequisite: Rus 261 or equivalent.
Selected works of major Russian authors.

Spanish

- 470G **Advanced Oral Spanish.** 3 hours.
Prerequisite: Spn 370.
Conversation units, dramatic sketches, original oral topics.
- 471G **Advanced Spanish Syntax.** 3 hours.
Prerequisite: Spn 371.
Examination of selected literary works; original compositions on selected topics.
- 472G **Background of Modern Spanish.** 3 hours.
Prerequisite: Spn 371.
History of the Spanish language, stresses the development of sounds and forms, word borrowings, and changes in meanings.
- 475G **Literature of Spain I.** 3 hours.
Prerequisite: Spn 374.
Peninsular Spanish literature from the beginnings through the 17th Century. Readings, reports.
- 476G **Literature of Spain II.** 3 hours.
Prerequisite: Spn 374.
Peninsular Spanish literature from the 18th Century to the present. Readings, reports.
- 477G **Spanish American Literature.** 3 hours.
Prerequisite: Spn 374.
Spanish American literature from the pre-conquest period through the contemporary period.
- 479G **Studies in Hispanic Literature or Language.** 3 hours.
May be repeated once.

DEPARTMENT OF HISTORY

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

Richard Troutman, Head

Graduate Faculty

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

Associate Professors: C. Bussey, R. Salisbury, R. Stone

Assistant Professors: T. Allsen, D. Borei, D. Lee, R. Weigel

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

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

Master of Arts in History

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

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

A student who has an undergraduate major in history may be permitted to take six to nine hours of graduate work in a related field in courses approved by the Graduate Advisory Committee. A student who 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. Reading proficiency in a modern foreign

language must be demonstrated.

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

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

Master of Arts in Education (History major or minor)

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

Specialist in College Teaching

The specialist degree program is designed for those who wish to pursue work beyond the master's level and who do not expect to earn the doctorate. The program involves additional academic courses, a practicum in college teaching, and a specialist project.

In addition to meeting general Graduate College requirements for admission, an applicant for the Specialist Degree must have completed at least 18 hours of graduate work in history with a minimum grade point average of 3.25.

A student may, with the prior approval of the graduate advisor, take a minor of six to nine hours in a related field provided that at least 48 graduate hours in history will have been accumulated upon completion of the Specialist Degree.

The specialist project, which may be a field project, a creative study, or more formal types of research and study, culminates in a scholarly written report and carries six hours of graduate credit.

History and the Humanities Program

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

Graduate Courses in History

500 Cultural and Social Aspects of American Life. 3 hours. Designed for graduate students who have undergraduate majors in the field of elementary education.	502 United States History for Secondary Teachers. 3 hours. Emphasis on bibliography, documents, historical interpretations and materials for secondary teachers of history.	527 Social and Intellectual History of Europe: Nineteenth Century. 3 hours.
501 European History for Secondary Teachers. 3 hours. Emphasis on bibliography, documents, historical interpretations and materials useful for secondary teachers of history.	515 Nineteenth Century Britain. 3 hours.	554 Discovery and Interpretation of Local History. 3 hours. Prerequisite: Graduate standing. Materials, methodology and techniques employed in local history research and its integration with other fields.
	521 United States 1900-1945. 3 hours.	590 Advanced Individual Study. 3 hours. Prerequisite: 3.0 average in at least 9 hours at the graduate level. A research problem or intensive readings directed by a faculty member. May be repeated once with a change of content.
	525 Social and Intellectual History of the US: Nineteenth Century. 3 hours.	
	526 Social and Intellectual History of the US: Twentieth Century. 3 hours.	

- 599 **Thesis Research and Writing.** 6 hours.
- 599c **Maintaining Matriculation.** 1 to 6 hours.
- 605 **Seminar in Ancient History.** 3 hours.
May be repeated once with a different topic.
- 606 **Seminar in European History.** 3 hours.
Graduate Seminar in such diverse areas as the Middle Ages, the Renaissance, and the Reformation. May be repeated once with a different topic.
- 619 **Seminar in United States Diplomatic Relations.** 3 hours.
May be repeated once with a different topic.
- 622 **Seminar in Western United States History.** 3 hours.
May be repeated once with a different topic.
- 630 **Seminar in United States History.** 3 hours.
Graduate seminar in such diverse areas as Colonial America, the Confederation Period, the Federalist era, the Jeffersonian Republicans, the Slavery Controversy. May be repeated once with a different topic.
- 631 **Seminar in Kentucky History.** 3 hours.

- 640 **Seminar in College Teaching.** 3 hours.
Course organization, lecture preparation, professional development, ethics, testing procedures, and library development.
- 699 **Specialist Project.** 6 hours.
- 699c **Maintaining Matriculation.** 1 to 6 hours.

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 **The Middle East in Modern Times.** 3 hours.
- 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.
- 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.
- 455G **American Historiography.** 3 hours.
- 457G **The Old South.** 3 hours.
- 458G **The New South.** 3 hours.
- 459G **The Immigrant in American History.** 3 hours.
- 464G **Latin America and the United States.** 3 hours.
- 479G **Topics in the Third World.** 3 hours.
Intensive study of a selected Third World topic.

DEPARTMENT OF JOURNALISM

**ACADEMIC COMPLEX
ROOM 323 (502) 745-4143**

David B. Whitaker, Head

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

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

- 427G **School Journalism.** 3 hours.
Processes and problems of the mass media in our nation; responsibilities of advisors to school publications and broadcasting facilities; materials and resources available to support mass communication instructional programs.
- 481G **Problems in Mass Communication.** 3 hours.
Individualized research, management, production, etc., in the fields of mass communication activities. Supervised internship with professional media operations. May be repeated once for credit.

DEPARTMENT OF MUSIC

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

Wayne Hobbs, Head

Graduate Faculty

**Professors: K. Campbell, H. Carpenter, W. Hobbs,
S. Kersenbaum, V. Lezhnev, E. Pease, T. Watson**

**Associate Professors: P. Grignet, V. Hale, D. Livingston,
O. Pauli**

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

Master of Music (Major in Performance)

This program is designed for students who seek a career in performance, symphony orchestra, or private studio teaching in college or community. In addition to the general Graduate College requirements, the applicant

must have a bachelor's degree in music with a grade point average in music subjects of at least 3.0. In addition the individual must demonstrate ability and knowledge through examination in music theory, music literature, and the chosen area of performance.

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

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

Master of Arts in Education (Music major or minor)

Since this program is designed for the public school teacher, the student following it must meet all requirements for standard high school certification. The major requires a minimum of 18 or a maximum of 21 hours in music. The minor requires a minimum of 12 or a maximum of 15 hours in that department. The remaining hours will be taken in professional education courses. (Note: Education 535, Seminar in Music Education, is recommended as a part of the education core). A typical program consists of a balanced selection of music education and music literature offerings. In addition, consideration is given to those with an interest in music theory, instrumental arranging, applied music (primary or secondary), or a related field.

Graduate Courses in Music

- 500 Seminar in Theory.** 3 hours.
- 501 Analytical Techniques.** 3 hours.
Harmonic and contrapuntal analysis in various styles.
- 510 The Teaching of Applied Music.** 3 hours.
Investigation of pedagogical problems in a specific performance area of music.
- 511 Investigations of Music Education.** 3 hours.
Problems and Methods of research in music education. Includes application of pure and action research and investigation of published research in music education.
- 512 Music Education Workshop.** 1 to 3 hours.
A variable topic workshop that may be repeated for a total of six hours.
- 513 Directed Individual Study.** 3 hours.
Research projects in music education.
- 514 General Music in the Secondary Schools.** 3 hours.
Training the music teacher to provide orientation experiences for junior and senior high school non-performers.
- 515 Administration and Supervision of Public School Music.** 3 hours.
Current trends in educational thought and the implications of administration, instruction and evaluation public school instrumental music.

- 530 Music Literature.** 3 hours.
Investigation of a specialized area not covered in other music literature courses.
- 538 Directed Individual Study.** 3 hours.
Supervised private research culminating in a scholarly paper.
- 556, 557, 558 Applied Music Major.** 4 hours.
(MM in Performance only)
- 559 Graduate Recital.** 2 hours.
Required of candidates for the Master of Music Degree.
- 599 Thesis Research and Writing.** 6 hours.
- 599c Maintaining Matriculation.** 1 to 6 hours.

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

- 402G Counterpoint I.** 2 to 3 hours.
Prerequisite: Theory 201
Sixteenth Century polyphony.
- 403G Counterpoint II.** 2 to 3 hours.
Prerequisite: Counterpoint I.
- 406G Composition.** 3 hours.
Prerequisite: Consent of the instructor.
- 407G Orchestration and Band Arranging.** 3 hours.
Prerequisite: Theory IV.
- 415G Choral Methods.** 3 hours.
- 416G Instrumental Methods.** 3 hours.

- 430G Music Literature.** 2 to 3 hours.
A survey embracing music of several periods, styles, and forms.
- 432G Research Techniques in Music.** 3 hours.
- 440G Choral Union.** 1 hour.
- 441G Choir.** 1 hour.
- 443G Band.** 1 hour.
- 444G Orchestra.** 1 hour.
- 445G Madrigal Singers.** 1 hour.
- 449G Chamber Music.** 1 hour.
- 450G, 451G Applied Music Secondary.** 1 hour.
- 453G, 454G Applied Music Principal.** 2-3 hours.
- 471G Jazz Ensemble.** 1 hour.

Music Fees

Individuals or small group instruction in voice or musical instrument:

- One half-hour private lesson or equivalent per week \$22 Per Semester
- Two half-hour private lessons or equivalent per week \$37 Per Semester
- Three half-hour private lessons or equivalent per week \$50 Per Semester

Practice Room Fees:

- One hour per day with piano ... \$5 Per Semester
- Two hours per day with piano .. \$7 Per Semester
- Three hours per day with piano \$8 Per Semester
- Rent on orchestral instruments \$5 Per Semester
- Locker Fee \$1 Per Semester

Summer Music Fees

Lessons:

- One half-hour private lesson or equivalent per week . \$11 Per Summer Session
- Two half-hour private lessons or equivalent per week . \$18 Per Summer Session
- Three half-hour private lessons or equivalent per week . \$26 Per Summer Session

Practice Room Fees:

- One hour per day \$3 Per Summer Session
- Two hours per day \$4 Per Summer Session
- Three hours per day \$5 Per Summer Session

DEPARTMENT OF PHILOSOPHY AND RELIGION

Cherry Hall
ROOM 300 (502) 745-3136

Ronald H. Nash, Head

Graduate Faculty

Professors: W. Lane, R. Mounce, R. Nash, D. Tuck,
R. Veenker

Associate Professors: M. Howe, R. Johnston, B. Roberts,
J. Spiceland, A. Vos

Assistant Professors: J. Long, L. Mayhew, E. Schoen

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

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

The graduate program in humanities is designed to provide the student with a broad background in the intellectual and cultural achievements of Western civilization. It involves a serious attempt to develop a

creative synthesis of those contributions which flow from the study of history, literature, philosophy, religion, and the fine arts. It traces the adventure of the human spirit across the disciplines with the intention of nurturing in the student an increased awareness of the interrelatedness of all knowledge.

At least 18 of the required 30 hours must be in courses numbered 500-level or above. The student's program must include one course each from history, philosophy, and literature (which includes religious literature), as well as a basic methodology course in interdisciplinary study (Humanities Seminar). Each student will also take 598 — Humanities Essay (3 hours) or 599 — Thesis Research and Writing (6 hours) plus a final written examination. The student must also demonstrate reading ability in either French, German, or Greek.

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

(1) A concentration in the history of ideas of a particular cultural epoch. The goal here is one of breadth of material and approach. The student electing this option will select one of three periods of Western civilization for the area of specialization: Ancient and Medieval; Renaissance through Enlightenment; Nineteenth and Twentieth Centuries. Twenty-one of the student's thirty hours including thesis or essay are to be taken in the period of specialization. The research for the essay or thesis must also be in this period and must demonstrate a knowledge of the unifying relationships which exist between the various disciplines in the humanities.

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

Graduate Courses in Philosophy

- 500 **Humanities Seminar.** 3 hours.
Problems in and approaches to interdisciplinary study.
- 501 **Readings in Philosophy.** 3 hours.
Philosophic classics or readings in a selected area of philosophy. May be repeated with different topics.
- 502 **Seminar in Ancient and Medieval Philosophy.** 3 hours.
Topics in ancient and medieval philosophy. May be repeated with different topics.
- 503 **Seminar in Modern Philosophy.** 3 hours.
Philosophers or topics in modern philosophy. May be repeated with different topics.
- 504 **Seminar in Contemporary Philosophy.** 3 hours.
Philosophers or topics in contemporary philosophy. May be repeated with different topics.
- 598 **Humanities Essay.** 3 hours.
- 599 **Thesis Research and Writing.** 6 hours.
- 599c **Maintaining Matriculation.** 1 to 6 hours.

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

- 400G **Contemporary Philosophy.** 3 hours.

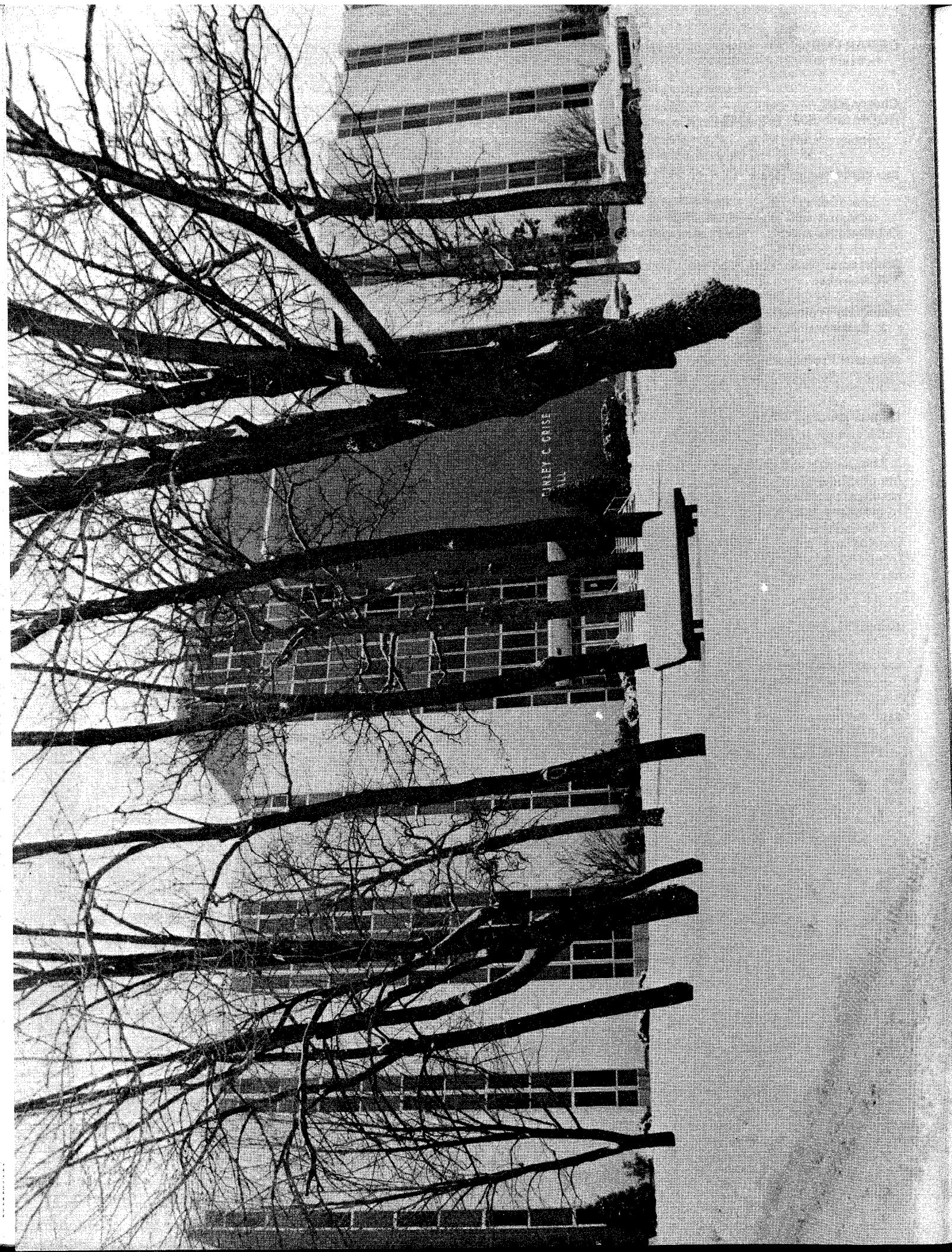
- 401G **Readings in Philosophy.** 3 hours.
- 405G **Existentialism.** 3 hours.
- 420G **Philosophy of History.** 3 hours.
- 425G **Twentieth Century British Philosophy.** 3 hours.
- 432G **Early Political Philosophy.** 3 hours.
- 433G **Modern Political Philosophy.** 3 hours.
- 440G **Metaphysics and Epistemology.** 3 hours.
- 499G **Research in Philosophy.** 3 hours.

Graduate Courses in Religion

- 501 **Graduate Seminar in Religious Studies.** 3 hours.
Specific issues in one of the areas of concentration. May be repeated for different topics.
- 510 **Seminar in Religious Literature.** 3 hours.
Selected literature from one major religious tradition. May be repeated with different topic.
- 520 **Seminar in Religious History.** 3 hours.
Significant topics, movements, or events in the development of one major religious tradition. May be repeated with different topic.
- 530 **Seminar in Religious Thought.** 3 hours.
Selected topics or thinkers from one major religious tradition. May be repeated with different topic.

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

- 400G **Contemporary Religious Thought.** 3 hours.
- 401G **Religion Seminar.** 3 hours.
- 405G **Current Issues in New Testament Studies.** 3 hours.
- 415G **Old Testament Themes.** 3 hours.
- 420G **The Age of the Apostles.** 3 hours.
- 430G **Christianity to 1517.** 3 hours.
Development of Christian thought and institutions prior to the Reformation.
- 431G **Christianity from 1517 to the Present.** 3 hours.
Development of Christian thought and institutions from the Reformation to the present.
- 440G **Judaism.** 3 hours.
- 445G **The Religious Traditions of Israel.** 3 hours.
- 455G **The Hindu Religious Tradition.** 3 hours.
- 460G **The Religion of Primitive Peoples.** 3 hours.
- 465G **The Buddhist Religious Tradition.** 3 hours.
- 499G **Research in Religion.** 3 hours.



COLLEGE OF BUSINESS ADMINISTRATION

DEPARTMENTS

Accounting

**Business-Distributive Education and Office
Administration**

Economics

Finance and Quantitative Business Analysis

Government

Management and Marketing

Sociology, Anthropology, and Social Work

DEGREES OFFERED

Master of Arts (Economics, Government, Sociology)

Master of Business Administration

Master of Public Service
(Public Administration, Regional Development)

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

**Business-Distributive Education and Office
Administration**

Economics

Government

Social Science Area (major only)

Sociology (minor only)

DEPARTMENT OF ACCOUNTING

Graduate Faculty

GRISE HALL
ROOM 402 (502) 745-3895

Professor: C. Hays
Associate Professors: J. Hall, J. Philhours, G. Porter

Charles T. Hays, Head

Accounting is an integral part of the Master of Business Administration curriculum. In addition, graduate courses in accounting give significant support to other graduate programs.

Graduate Courses in Accounting

518 Investigations in Accounting. 3 hours.
Primarily for secondary education teachers of bookkeeping. Includes updating of terminology and practice in accounting.

560 Controllership. 3 hours.
Control function in corporate enterprise; accounting and financial control concepts and techniques; control measures for production and marketing decisions; risk and uncertainty in the decision-making process.

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

400G Partnership and Fund Accounting. 3 hours.
Prerequisite: Acct 300.
Problems in accounting for partnerships; specialized techniques and concepts of accounting for governmental and institutional organizations.

401G Consolidated Statements and Related Topics. 3 hours.
Prerequisite: Acct 302.
Problems involved in the preparation of consolidated financial statements. Also covers other specialized areas of accounting.

402G Contemporary Accounting Issues. 3 hours.
Prerequisite: Acct 302.
Contemporary problems in financial accounting with emphasis on pronouncements of various organizations concerned with the development of accounting principles and practices.

410G Accounting for Decision-making and Control. 3 hours.
Prerequisite: Acct 200.
Accounting information as an aid to decision-making and control with emphasis on the internal use of accounting data. Primarily for students in the MBA program.

431G Federal Tax Accounting II. 3 hours.
Prerequisite: Acct 430.
The Federal income tax structure as it applies to partnerships and corporations. Also covers other specialized areas of federal taxation. Emphasizes the use of tax services in researching tax problems.

450G Auditing Theory and Application. 3 hours.
Prerequisite: Acct 302.
Emphasizes the work of public accountants. Topics include auditing standards, professional ethics, legal liabilities, auditing objectives and procedures, etc.

DEPARTMENT OF BUSINESS-DISTRIBUTIVE EDUCATION AND OFFICE ADMINISTRATION

Associate Professors: M. Albin, K. Utley

Assistant Professor: D. Clippinger

GRISE HALL
ROOM 500 (502) 745-3097

Hollie W. Sharpe, Head

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

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

The Department requires a minimum of 18 or a maximum of 21 hours for a major. A minimum of 12 or a maximum of 15 hours is required for a minor. The remaining courses will be taken in professional education.

Graduate Faculty

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

Graduate Courses in Business-Distributive Education and Office Administration

525 Modern Stenographic Techniques. 3 hours.
Touch shorthand theory. Also includes teaching methods and development of the basic speed on the Stenograph.

535 Survey of Distribution. 3 hours.
Business activities involved in moving goods from production to consumption,

with emphasis on the role of marketing in the American economy.

540W Consumer Financial Problems. 3 hours.
Eight basic elements of money management and the relationship of these elements to family units and corporate citizenship.

544 Current Problems in Business Education. 2 to 6 hours.
Current problems and significant research in business education. Also offered as independent study or workshop.

545 Principles of Business Education. 3 hours.
Principles, practices, problems, and philosophy in business education. Includes standards, guidance, curricula, and supervision at all educational levels.

550 Contemporary Office Administration Problems. 3 hours.
Prerequisite: BE 462 or permission of instructor.
Basic problems in office administration. Individual and group analysis and presentation of case problems and

current literature. Problems areas include: systems analysis and design, procedures and methods, cost control, personnel, environmental factors and automation.

- 575 Administration and Supervision in Business Education.** 3 hours.
Roles and functions of administration and supervision in business education at all educational levels. Includes vocational education laws and their relationship to business education.

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

- 461G Report Writing.** 3 hours.
Defining the problem, collecting and organizing the information, constructing and presenting the report.
- 462G Office Management.** 3 hours.
Fundamentals of management in the administrative services area. Coordination of services and personnel.
- 463G Records Management.** 3 hours.
Systems for the retrieval and retention of

information. Procedures for the creation, classification, retention, and disposition of written records.

- 471G Internship in Business and Office Education.** 3 hours.
Seminars supplemented by on-the-job experience.
- 481G Advanced Business Communications.** 3 hours.
Communication theory and office management situations. Emphasizes written and oral communication in the administrative process.

DEPARTMENT OF ECONOMICS

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

John C. Wassom, Head

Graduate Faculty

Professors: S. Ahmed, K. Cann, D. Needham, S. Lile, J. Wassom

Associate Professors: C. Fost, R. Pulsinelli, C. Roberts

Assistant Professors: W. Davis, S. Jarrell, M. Morgan

Degrees Offered: Master of Arts in Economics, Master of Arts in Education (Economics major or minor), Master of Public Service (Regional Development option).

Master of Arts in Economics

This program is designed to prepare students for further graduate work leading to the Ph.D. degree, for teaching at the junior college level, or for employment in business or government.

The applicant must have completed at least 21 semester hours, or equivalent, in undergraduate courses in economics with a 2.7 grade point average. Students having less than a 2.7 average may be admitted on a probationary basis upon recommendation of the Department of Economics. The applicant is expected to have completed six semester hours in intermediate economic theory (microeconomics and macroeconomics) and three hours in elementary statistics, and must have an appropriate background in mathematics or quantitative skills. Deficiencies in undergraduate preparation may be removed by satisfactorily completing the appropriate courses during the first semester(s) after admission.

Foreign students must demonstrate the ability to use English and must submit an acceptable score on the Test of English as a Foreign Language (TOEFL).

Both Plan A (thesis) and Plan B (non-thesis) are available. The research tool may be met by (1)

demonstrating reading proficiency in a foreign language or (2) completing Econ 464G or 465G; if these courses are taken on the program, another course—subject to approval by the department and the graduate dean—may be substituted. Students pursuing Plan B may select six additional hours from economics, mathematics, computer science, or business administration, upon consultation with the graduate advisor.

All students are required to complete a nine-hour core consisting of Economics 520, 525, and either 464G or 465G. The remaining 15 to 21 hours of coursework may be selected from the list of economics courses approved for graduate credit. No more than six hours of 400-level courses, excluding Economics 464G and 465G, may be taken; no more than six hours may be taken in areas other than economics.

A final written or oral examination, covering major areas of study and/or the thesis, is required.

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.

Master of Public Service (Regional Development option)

This option of the Master of Public Service, an interdisciplinary degree program, is designed to prepare students for employment with governmental agencies at local, state, and federal level; public utility companies; area development districts; industrial development corporations; and other public and private organizations dealing with the development of geographic, economic, and political regions. The Regional Development option provides students with special skills and tools of analysis in the area of regional and urban economics. Both Plan A (thesis) and Plan B (non-thesis) are available.

Applicants must have completed courses in the disciplines involved in this degree program with at least a 2.5 grade point average. Prior preparation in economics (at least two courses in principles of economics and one course in statistics at the undergraduate level) is required. A mature student with deficient undergraduate preparation in the disciplines represented may be admitted to the

program provided he/or she removes the deficiencies by taking appropriate courses during the first semester after admission.

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

- A. Organization theory courses—3 hours.
Govt 540 Seminar in Public Administration.
Psy 551 Social Psychology of Organizations.
Soc 575 Complex Organizations
Mgt 510 Organization Theory
- B. Socio-economic and political factor courses—6 hours.
Geog 484G Planning: Theory and Application

Govt 511 Seminar in State and Local Government
Econ 550 Public Sector Economics
Soc 565 Studies in the Community.

In addition to the core requirements, MPS students in the Regional Development option must complete Econ 475G (Urban and Regional Development) and Econ 540 (Land Economics) and three of the following:

Econ 470G Economics Growth and Development
Econ 520 Advanced Microeconomic Theory
Econ 525 Advanced Macroeconomic Theory
Econ 570 Economics Development
Econ 598 Directed Studies

The remainder of the required 30 hour minimum is planned, in consultation with the advisor, from appropriate courses in the areas of economics, geography, and business administration.

Graduate Courses in Economics

- 501 **Survey of Public Finance Theory.** 3 hours.
Prerequisite: Econ 310.
Theoretical aspects of government finance and its influence on public and private decision making.
- 502 **Seminar in Economic History.** 3 hours.
Topics and research in United States and European economic history.
- 503W **Economics for Teachers.** 3 hours.
Basic economic concepts and topics dealing with the functioning of a market oriented economic system and the U.S. economy.
- 520 **Advanced Microeconomic Theory.** 3 hours.
Prerequisite: Econ 302 or consent of instructor.
Topics in the theory of consumer behavior, prices, markets, production, distribution, and welfare.
- 525 **Advanced Macroeconomic Theory.** 3 hours.
Prerequisite: Econ 303 or consent of instructor.
Topics in the theory of consumption, saving, investment, interest, money, and employment.
- 530 **Monetary Theory.** 3 hours.
Prerequisite: Econ 300 or 450.
Classical, neoclassical, Keynesian, and modern quantity theory of money and monetary policy.
- 540 **Land Economics** 3 hours.
Topics in land use, values, and natural resources.
- 550 **Public Sector Economics.** 3 hours.
Considers problems in government finance, budgeting, fiscal relations, and revenue sharing. Primarily for Master of Public Service Students.
- 560 **Seminar in Economic Theory.** 3 hours.
Prerequisites: Econ 520 and 525.
Intensive study of selected topics in theory.
- 570 **Economic Development.** 3 hours.
Prerequisite: Econ 470 or consent of instructor.
Considers the development problems of the less developed countries.

- 575 **Advanced International Economics.** 3 hours.
Prerequisites: Econ 302 and 380 or consent of instructor.
Considers trade theory, tariffs, balance of payments, and capital transfers.
- 597 **Economic Research and Report Writing.** 3 hours.
Techniques of data collection, research, and formal writing on selected topics.
- 598 **Directed Studies.** 3 hours.
Intensive study of selected topics in economics.
- 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

- 414G **Managerial Economics.** 3 hours.
Prerequisites: Econ 206 and 302.
Application of economic principles and analysis to business management decision-making in areas of demand, pricing, cost, production, and investment.
- 430G **Comparative Economic Organization.** 3 hours.
Prerequisites: Econ 302 and 303 or consent of instructor.
Analysis of different world economic systems.
- 440G **American Industry: Structure, Performance, and Policy.** 3 hours.
Prerequisites: Econ 302 and 303 or consent of instructor.
Economic analysis of the behavior of business firms in a market economy.
- 450G **Central Banking Theory and Monetary Policy.** 3 hours.
Prerequisites: Econ 300 and 303.
Applied monetary theory and policy
- 460G **Business and Economic Fluctuations.** 3 hours.
Prerequisites: Econ 302 and 303.
Study of business cycles and economic forecasting.
- 464G **Introduction to Mathematical Economics.** 3 hours.
Prerequisites: Econ 302 and 303.
Application of mathematics to economic theory.

- 465G **Introduction to Econometrics.** 3 hours.
Prerequisite: Econ 306 or consent of instructor.
Advanced topics in statistical measurement.
- 470G **Economic Growth and Development.** 3 hours.
Prerequisites: Econ 302 and 303.
Analysis of growth and development theory and practices in the modern world.
- 475G **Urban and Regional Economics.** 3 hours.
Prerequisites: Econ 202, 203, and 206, or consent of instructor.
Analysis of regional economic relationships, income, and employment.
- 490G **Economic Thought to 1870.** 3 hours.
Prerequisites: Econ 202 and 203.
Origin and development of economic thought through Marx emphasizing the contribution of political economy to the behavioral sciences.
- 491G **Economic Thought Since 1870.** 3 hours.
Prerequisites: Econ 202 and 203.
Further development of economic thought from the marginalists to the present.

DEPARTMENT OF FINANCE AND QUANTITATIVE BUSINESS ANALYSIS

GRISE HALL
ROOM 233 (502) 745-5283

Harold Fletcher, Head

Graduate Faculty

Professor: R. Nelson

Associate Professor: H. Fletcher

Assistant Professors: B. Madron, C. Morgan

Degree Offered: Master of Business Administration.

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

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

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

or

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

or

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

or

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

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

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

The student having an undergraduate degree in business must demonstrate competence in advanced statistics and financial statement analysis or take Economics 306 (Statistical Analysis) and/or an advanced accounting course specified by the advisor as preparation for the graduate core work. If the undergraduate transcript indicates deficiencies in one or more functional areas of business administration, the department advisor may require that the student take undergraduate foundation courses. In addition to the preparatory work, 30 semester hours of approved graduate work are required.

The student holding a non-business undergraduate degree is required to build a foundation of business academic expertise at the undergraduate level before advancing to graduate level coursework. The number of foundation courses is flexible and is determined for each student on an individual basis. The student's academic

background and business experience are considered when the foundation requirements are chosen. In addition to the foundation work, the student holding a non-business undergraduate degree is required to complete 30 semester hours of approved graduate coursework.

All candidates for the Master of Business Administration degree must demonstrate proficiency in mathematics through calculus or take one or more of the following courses: Mathematics 100, 116 and 119. The exact sequence of required mathematics courses will be determined for each candidate by the MBA advisor with consideration given to the candidate's background.

In the final semester of coursework all candidates for the degree must pass a comprehensive examination covering the graduate core work. Students must maintain a minimum grade point average of 3.0 in all courses while pursuing the degree.

The Master of Business Administration graduate core consists of the following courses:

Acct 410G Accounting for Decision Making and Control

Mgt 500 Business, Government, and Law

Mgt 503 International Business

Mgt 510 Organization Theory

QBA 511 Advanced Management Science

Mgt 518 Administrative Policy and Strategy

Mkt 520 Advanced Marketing

Fin 530 Finance and Valuation of Corporations

Econ 520 Advanced Microeconomic Theory

Econ 525 Advanced Macroeconomic Theory

Graduate Courses in Finance and QBA

QBA511 Advanced Management Science

3 hours.

Linear programming and simplex. Applications of linear programming, dynamic programming, queueing theory, inventory theory, and simulation.

FIN530 Finance and Valuation of Corporations.

3 hours.

Financing policies of corporate entities with emphasis on planning the capital structure, measuring and controlling the costs of alternate sources of funds, dividend policy, capital budgeting, and growth through mergers and acquisitions.

INFS540 Modern Data Processing. 3 hours.

Electronic data processing, its hardware, languages, and applications.

INFS449G Independent Study in Information Systems. 1 to 3 hours.

May be repeated.

DEPARTMENT OF GOVERNMENT

GRISE HALL
ROOM 300 (502) 745-4558

George S. Masannat, Head

Graduate Faculty

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

Assistant Professor: F. Carter

Degrees Offered: Master of Arts in Government, Master of Arts in Education (Government major or minor), Master of Public Service (Public Administration Option)

Master of Arts in Government

This program is designed to prepare students for continued graduate work at the doctoral level, for positions in junior college or university teaching, or for careers in professions such as journalism, public service and politics.

To be eligible for admission, the applicant should have a B average in the major undergraduate field and/or all undergraduate courses in government. Letters of recommendation are also required.

Under Plan A (thesis), a minimum of 24 hours of acceptable coursework and a thesis, carrying six hours of credit, are required. Under Plan B (non-thesis), a minimum of 30 hours of acceptable coursework must be completed. The research tool requirement may be met by (1) demonstrating reading ability in a foreign language appropriate to the major area or (2) demonstrating competency in appropriate research techniques.

A final examination over courses, thesis, and related materials must be passed.

Master of Arts in Education (Government major or minor)

Since this program is designed for the public school teacher, candidates must meet all requirements for the standard high school certificate. For a major the student must complete 18 to 21 hours in government; for a minor the student must complete 12 to 15 hours in government. The remaining hours will be taken in professional education.

Master of Public Service (Public Administration option)

The Master of Public Service (MPS), an interdisciplinary program, is designed to prepare individuals for employment in governmental or quasi-governmental organizations requiring broad administrative knowledge as well as more specialized academic and practical training. The program requires the completion of a core curriculum consisting of courses from several departments and provides for career specialization within the option area. No thesis is required.

Requirements for the Public Administration option are:

Govt 540 Seminar in Public Administration and six hours selected from the following core courses:
Geog 484G Planning: Theory and Application
Govt 511 Seminar in State and Local Government
Econ 550 Public Sector Economics
Soc 565 Studies in the Community

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

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

The remaining hours may be selected from the following:

Govt 417G Urban Political Systems
Govt 424G Administrative Law
Govt 510 Problems in National Government
Govt 547 Seminar in Urban and Regional Public Policy Analysis
Mgt 500 Business, Government, and Law
Mgt 510 Organization Theory
Soc 575 Complex Organizations
Psy 551 Social Psychology of Organizations

Graduate Courses in Government

- 501 **Methods of Political Inquiry.** 3 hours.
Analysis and description of the logic and procedures necessary for valid political inquiry.
- 510 **Problems in National Government.** 3 hours.
Research, reports, and discussion of selected aspects of national government.
- 511 **Seminar in State and Local U.S. Government.** 3 hours.
Selected problems at all levels of U.S. Government.
- 520 **Seminar in Public Law.** 3 hours.
Exposition, discussion, and analysis of concepts and issues in jurisprudence, and/or in administrative, constitutional, and international law.
- 530 **Seminar in Political Theory.** 3 hours.
Analysis of selected topics in political theory.

- 540 **Seminar in Public Administration.** 3 hours.
Analysis of behavior and problems of public organizations in democratic environments. Links societal values to administrative structure and behavior.
- 545 **Seminar in Public Policy Analysis.** 3 hours.
Theoretical approaches to the analysis of public policy, policy-making, and policy implementation and to such topics as health and welfare, poverty, education, and urban affairs.
- 547 **Seminar in Urban and Regional Public Policy.** 3 hours.
Current approaches to urban and regional public policy. Detailed treatment of selected problems and related policy choices facing decision makers.
- 550 **Seminar in International Relations.** 3 hours.
Individual and group study of theories and practical applications of international relations.

- 560 **Seminar in Comparative Government.** 3 hours.
Study and research in the areas of democratic and totalitarian governments.
- 580 **Directed Study.** 3 hours.
Faculty guidance of student research in one or more selected fields of political science.
- 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

- 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.
- 417G Urban Political Systems.** 3 hours.
Contemporary American urban political systems; socioeconomic values in the urban political culture and how they relate to political structures and activities.
- 423G Jurisprudence.** 3 hours.
The nature of law; origins, evolutions and characteristics of the common and Roman law systems; principal schools of legal theory; and the arrangement, methods and processes of the law.
- 424G Administrative Law.** 3 hours.
The development of and trends in administrative law with emphasis on problems caused by the exercise of quasi-legislative and quasi-judicial powers by administrative agencies.
- 431G Normative and Empirically-Related Theory.** 3 hours.
Prerequisite: One political theory or philosophy course or permission of the instructor.
Structure and function of normative theories and of empirically-related theories and their role in the study of politics.
- 432G Early Political Theory.** 3 hours.
Political ideas in the West from Plato through Thomas Aquinas.
- 433G Modern Political Theory.** 3 hours.
Prerequisite: Govt 432 or permission of the instructor.
Political ideas in the West from Machiavelli to present-day theorists.
- 434G Contemporary Political Theory.** 3 hours.
Prerequisite: Govt 432 or 433 or permission of the instructor.
Selected aspects of contemporary political thought.
- 435G American Political Theory.** 3 hours.
American political theory from puritanism to present.
- 440G Elements of Public Administration.** 3 hours.
Focus on public administration theory and application in open and closed political systems. Personnel and financial management examined under changing systems of public control.
- 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 Governmental Financial Administration.** 3 hours.
Budgeting and accounting processes of local government. Also includes state and federal grant and revenue-sharing programs.
- 445G Public Policy Analysis.** 3 hours.
Covers theoretical approaches to policy analysis as well as theories and models of policy evaluation.
- 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 functions 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 the United Arab Republic.
- 466G Far Eastern Governments and Politics.** 3 hours.
Political traditions, structures and processes of major governments in the Far East.
- 499G Internship in Public Administration.** 3 hours.
Work experience in a public sector or non-profit agency combined with faculty direction.

DEPARTMENT OF MANAGEMENT AND MARKETING

**GRISE HALL
ROOM 200 (502) 745-5408**

Lawrence Finley, Acting Head

Graduate Faculty

Professors: E. Evans, J. Herrick

Associate Professor: L. Finley

Assistant Professor: D. Bradley

Degree Offered: Master of Business Administration (see Department of Finance and Quantitative Business Analysis).

Graduate Courses in Management and Marketing

- 500 Business, Government, and Law.** 3 hours.
Development, implementation, and impact of major public policies toward business, including antitrust, public utility regulation, consumer protection, conservation and environmental control.
- 503 International Business.** 3 hours.
Institutions, organizations, and procedures of international business with emphasis on problems and decision making techniques.
- 510 Organization Theory.** 3 hours.
Analytical concepts and models derived from the classical, behavioral, decision-making, and systems approaches to the study of administrative organization.
- 518 Administrative Policy and Strategy.** 3 hours.
Prerequisite: At least 21 hours in the MBA program.
Complex Business problems and issues analyzed through the use of cases, seminar readings, and a simulation game.
- 520 Advanced Marketing.** 3 hours.
Marketing principles, institutions, policies, and operations. The quantitative and behavioral sciences as related to the theory, philosophy, and operation of integrated marketing systems.

**DEPARTMENT OF SOCIOLOGY,
ANTHROPOLOGY, AND SOCIAL WORK**

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

H. Kirk Dansereau, Head

Graduate Faculty

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

**Associate Professors: L. Beck, E. Bohlander, J. Faine,
J. Krenzin, J. Schock, P. Touts**

Assistant Professors: Z. Ahmad, A. Goetting, R. Wessing

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

Master of Arts in Sociology

This program is designed to provide a sound methodological and theoretical foundation for students who contemplate pursuing graduate studies beyond the master's level, to give a thorough preparation for those students who seek teaching positions at the college level, and also to transmit the basic sociological knowledge to those students who elect to pursue careers in industry or governmental service.

In addition to general Graduate College requirements, the student should have a B average for all undergraduate work in sociology. Promising students with limited grade or course deficiencies may be considered for admission to the program upon completion of an approved program of study for the removal of the deficiencies.

Persons admitted to the program should also have previously had a minimum of eighteen hours in sociology including the following courses or their equivalent:

Graduate Courses in Sociology

- 505 Elements of Sociology.** 3 hours.
Basic course for the nonsociology graduate student. The conceptual problem of interaction in terms of demography and ecology, culture and personality, and social structure and process.
- 520 Studies in Family Relations.** 3 hours.
Prerequisite: Six hours of Soc or consent of instructor.
Analysis of the family institution; the impact of modern culture on the family.
- 530 Seminar in the Sociology of Deviant Behavior.** 3 hours.
Prerequisite: Six hours of Soc or consent of instructor.

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

- 535 Seminar in Criminology.** 3 hours.
Prerequisite: Six hours of Soc or permission of instructor.
Theories of crime causation and current research in the areas of criminology and corrections—methodological research considerations.
- 545 Seminar in Society, Personality, and Behavior.** 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.

Methods of Social Research, Social Statistics, History of Social Thought, and Contemporary Sociological Theory.

In circumstances where special competence has been developed through experiences other than traditional coursework or extensive coursework in related disciplines, the above 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 future doctoral study are encouraged to pursue Plan A.

Under Plan A students will be required to complete 30 semester hours, including thesis. Twenty-four hours of sociology, including the 6 hours of thesis, must be taken at the 500 level or above. The remaining 6 hours may be taken in sociology or a related field at the 400G level or above.

Under Plan B students will be required to complete 30 semester hours, 21 of which must be taken in sociology at the 500 level or above. The 9 remaining hours may be taken in sociology or a related field at the 400G level or above.

All candidates for the Master of Arts in Sociology (Plan A or B) are required to pass three written examinations covering material cited in the departmental Master's Reading List. All candidates must pass examinations in three of the following areas: Sociological Theory; Methods/Statistics; Sociology of Economic Life; Demography/Community; Social Psychology/Mass Communications; Deviant Behavior/Criminology; Social Structure/Institutions/Social Change.

The research tool 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 and anthropology 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.

- 564 Demography.** 3 hours.
Prerequisite: Six hours of Soc or consent of instructor.
A review of the demographic processes such as mortality, fertility and migration, with emphasis on measurements, methods, and analytical techniques.
- 565 Studies in the Community.** 3 hours.
Prerequisite: Six hours of Soc or consent of instructor.
Ecological and social concepts of the community and its structure and function.
- 566 Industry and Community.** 3 hours.
Prerequisite: Six hours of Soc or consent of instructor.
The interaction of industry with its immediate environment; social structure of the workplace as an extension of

community; the impact of industry on community organization.

- 570 Studies of Social Systems.** 3 hours.
Prerequisite: Six hours of Soc or consent of instructor.
Use of organizational theory and its application to social systems.
- 572 Seminar in Social Change.** 3 hours.
Prerequisite: Six hours of Soc or consent of instructor.
Various approaches to social change and social disorganization as treated by the major sociological theorists. Also covers the origin, nature, consequences, and future outcome of social change and disorganization.
- 575 Complex Organizations.** 3 hours.
Prerequisite: Six hours of Soc or consent of instructor.
The goals, internal structure, and environmental relations of large organizations. Emphasizes the emergence of bureaucracies, competing theoretical frameworks for viewing organizations, and the analysis of organization change.
- 580 Advanced General Sociology.** 3 hours.
Prerequisite: Six hours of Soc and consent of instructor.
Examination of the various sub-disciplines of the field and the most important developments in each. Also includes recent research and theory in the various sub-fields.
- 590 Sociological Research Design and Analysis.** 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.
- 595 Seminar in Sociological Theory.** 3 hours.
Prerequisite: Six hours of Soc and consent of instructor.
Analysis of current sociological theories, including a survey of recent approaches to the construction and application of systematic theoretical models.
- 599 Thesis Research and Writing.** 6 hours.
- 599c Maintaining Matriculation.** 1 to 6 hours.
- 635 Seminar in Family Theory and Analysis.** 3 hours.
Prerequisite: Six hours of Soc or consent of instructor.
Analysis of the basic theoretical and conceptual frameworks used in past analytical studies of the family, as well as the use of these frameworks for current and future analyses.
- 640 Seminar in the Sociology of Work.** 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.

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

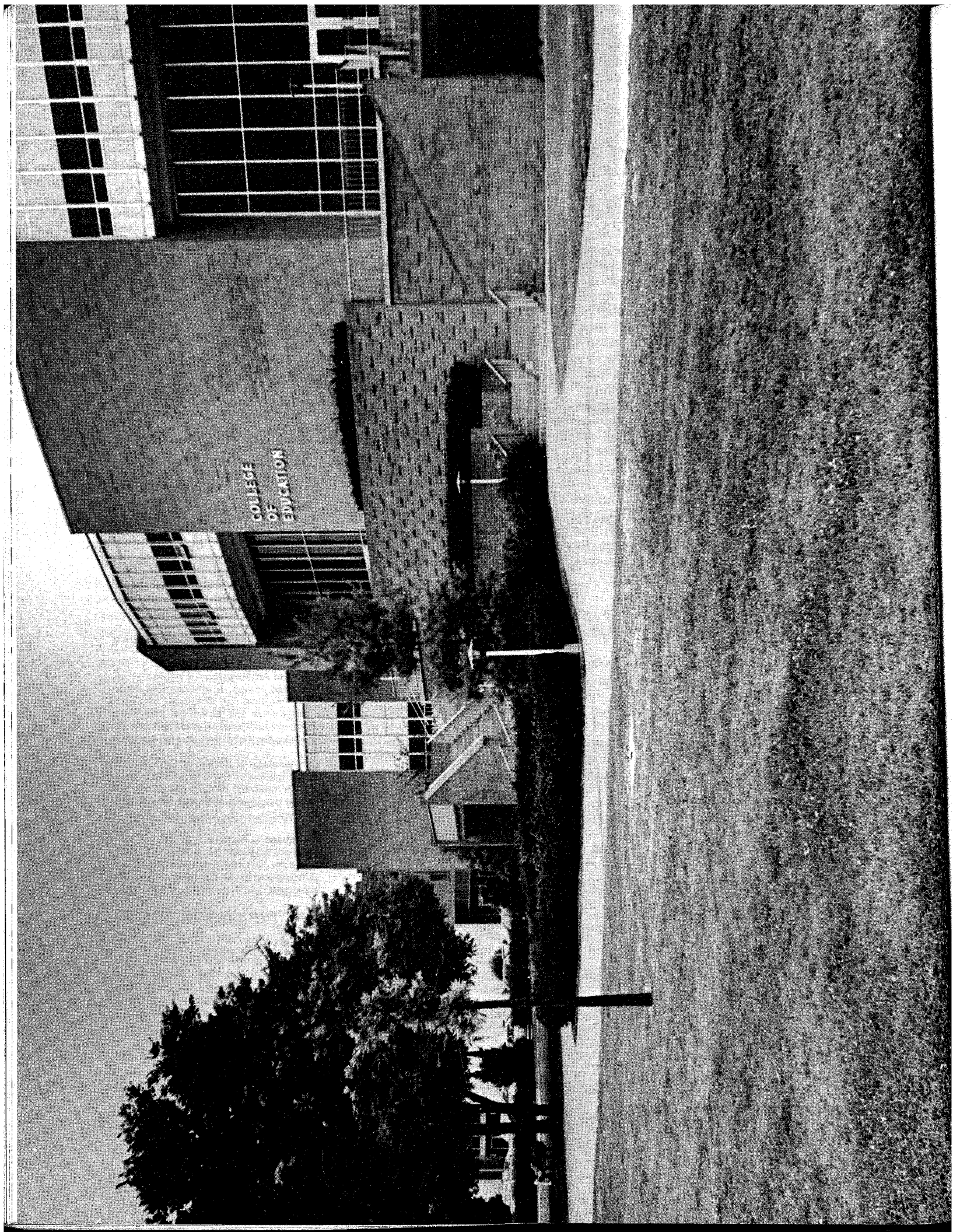
- 400G Juvenile Delinquency.** 3 hours.
Prerequisite: Soc 365 or consent of instructor.
General conditions related to juvenile delinquency, including a critical examination of trends and methods of treatment. Field trips required.
- 410G Urban Sociology.** 3 hours.
Prerequisite: Six hours of Soc or consent of instructor.
The impact of city life on social actions, social relationships, and social institutions. Emphasis on the rise and significance of cities in American life.
- 415G Sociology of Religion.** 3 hours.
Prerequisite: Six hours of Soc or consent of instructor.
The various forms and content of religious organizations and movements and the behavioral and attitudinal concomitants of religious affiliation.
- 433G Correction and Confinement.** 3 hours.
Prerequisite: Soc 365 or consent of instructor.
The structure and function of the correctional process and a specialized study of trends, legislation, experiments and accomplishments in correctional programs. Field trips required.
- 435G Probation and Parole.** 3 hours.
Prerequisite: Soc 365 or consent of instructor.
Community treatment of convicted law violators as part of the correctional process, the role of probation and parole personnel, pre-sentence investigation and selection, supervision and release.
- 445G Industrial Sociology.** 3 hours.
Prerequisite: Soc 346 or consent of instructor.
The factory as a social system, the interrelation of industry and the social order, selected problems of technological change, industrialization, and human relations in industry.
- 450G Occupations and Professions.** 3 hours.
Prerequisite: Soc 346 or consent of instructor.
Occupation specialization and the nature of occupational organization. Examines a variety of occupations and professions to determine the place of work in the lives of their members.
- 465G Mass Society and Mass Communication.** 3 hours.
Prerequisite: Soc 110, 395, or consent of instructor.
The relationship between the organization of mass society and its communication media; propaganda and other mass persuasion techniques related to the formation, alteration or maintenance of public opinion and mass values; emphasis on the impact of television on culture and social structure.
- 470G Sociology of Education.** 3 hours.
Examines social conditions affecting education and those affected by education.
- 495G-496G Directed Study.** 3 hours.
Prerequisite: Consent of the instructor and the department head.
Individual research in a specific area of sociology in close cooperation with supervising faculty.

Graduate Courses in Anthropology

- 507 Elements of Anthropology.** 3 hours.
Basic course for the non-anthropology graduate student. Covers the concept and nature of culture, the materials and structure of culture, cultural dynamics, and cultural variation.
- 555 Seminar in Anthropological Theory.** 3 hours.
History and development of anthropological thought to the end of the nineteenth century. Survey of contemporary anthropological thought, with special reference to the methods and theory of scientific anthropology.
- 570 Appalachian Folklore and Folk Life.** 3 hours.
See: Intercultural and Folk Studies 570.
- 572 Applied Folklore.** 3 hours.
See Intercultural and Folk Studies 572.
- 577 Folklore Theories and Techniques.** 3 hours.
See: Intercultural and Folk Studies 577.
- 578 Folklore Fieldwork and Oral History.** 3 hours.
See: Intercultural and Folk Studies 578.
- 579 Directed Study and Research in Folklore.** 3 hours.
See: Intercultural and Folk Studies 579.

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

- 420G Fossil Man.** 3 hours.
Detailed examination of the fossil evidence for the origins of man.
- 440G Cultural Anthropology.** 3 hours.
Selected topics in ethnological theory and method of analysis. Includes comparative and functional analysis of culture configuration and the historical development of theory in anthropology.
- 470G Archaeology of Kentucky.** 3 hours.
Examination of the prehistoric cultures which inhabited Kentucky, with emphasis on diagnostic artifacts and representative sites.
- 485G Language in Culture.** 3 hours.
Human language as it relates to other aspects of sociocultural behavior. Linguistics as a sub-field of anthropology.
- 491G-492G Field Course in Archaeology.** 3 hours.
Prerequisite: Anthro 151, 280, 330 or consent of the instructor.
Techniques for the recovery, preservation and recording of information pertaining to man's past. Includes archaeological survey, site excavation mapping and recording techniques, and cataloging procedures.
- 495G-496G Directed Study.** 3 hours.



COLLEGE OF EDUCATION

DEPARTMENTS

Center for Career and Vocational Teacher Education

Educational Leadership

Industrial Education and Technology

Physical Education and Recreation

Psychology

Teacher Education

DEGREES OFFERED

Master of Arts in Education

Master of Arts (Psychology)

Master of Public Service (Counseling)

Master of Science (Physical Education, Recreation)

Specialist in Education

JOINT DOCTORAL PROGRAM

(With the University of Kentucky)

Doctor of Education

Doctor of Philosophy in Education

NON-DEGREE PROGRAMS

Rank II — Planned Fifth Year

Rank I — Teacher (Elementary, Secondary)

Rank I — School Administration

Rank I — Guidance

Vocational Administrator Certification Program

CENTER FOR CAREER AND VOCATIONAL TEACHER EDUCATION

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

Dwight Cline, Coordinator for Vocational Education

Don Butler, Coordinator for Community Education

Graduate Faculty

Professors: N. Ehresman, C. Riley

Associate Professors: D. Butler, D. Cline, N. Schira

Assistant Professor: D. Bradley

Degree Offered: Master of Arts in Education—General (Areas of emphasis include adult and community education, higher education, and vocational education); Master of Arts in Education (Distributive Education minor).

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

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

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

Master of Arts in Education (General)

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

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

The education major (15-21 hours) must include Ed Fnd 500 — Research Methods and 3 hours selected from Ed Fnd 576, Ed Fnd 577, Psy 510, or Psy 511. The remaining

courses (9-15 hours) may be selected, in consultation with the advisor, from adult and community education, higher education, vocational education, and/or other areas of education.

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

Master of Arts in Education (Distributive Education minor)

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

Bus Ad 500, 520
BEOA 550, 540W, 535, 462G
Econ 502
HEFL 536, 533, 438G, 428G, 422G
Psy 570, 551, 520, 412G

Vocational Administrator Certificate

Students must complete a minimum of 15 hours in the areas of administration, supervision, research, and guidance—to include at least one course from each area as follows:

Organization and Administration of Vocational Education
CVTE 581
CVTE 591

Administration and Supervision of Educational Personnel
Sch Ad 686
Sch Ad 585
CVTE 595

Program Planning, Research and Evaluation in Vocational Education

Ed Fnd 500
CVTE 592
CVTE 593
Ed Fnd 570W

Vocational Guidance, Industrial Psychology, Human Relations

Cns Ed 656
CVTE 594

Graduate Courses in CVTE

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

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

581 **Organization and Administration of Occupational Education.** 3 hours.
Organization, administration, and

implementation of occupational education programs as an integral part of the educational system.

582 **Organization and Administration of Community Education.** 3 hours.

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

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

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

592 **Program Planning in Occupational Education.** 3 hours.

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

- 593 Planning and Equipping Occupational Education Facilities.** 3 hours.
Determining facility needs, evaluating existing facilities, planning new construction, renovation and utilization of existing facilities.
- 594 Seminar on Leadership in Occupational Education.** 3 hours.
Principles and practices of leadership as related to involving community resources in the development and operation of occupational education programs.
- 595 Supervised Practice in Administration of Occupational Education Programs.** (Internship). 3 to 6 hours.
Supervised internship with emphasis on development of administrative leadership and management skills.
- 596 Occupational Education in the Community Junior College.** 3 hours.
Organization and Administration of occupational education programs in the community junior college.

- 598V Organization and Supervision of Student Teachers in Vocational Education.** 3 hours.
Philosophy, theory, and practices essential in an effective student teaching program. Examines both State and NCATE standards.

- 693 Programs of Continuing Education.** 3 hours.
Philosophy, organization, and administration of continuing education programs. Organizations and agencies that provide continuing education opportunities for adults.

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

- 404G Adult and Community Education: History and Contemporary Perspective.** 3 hours.
Historical development, philosophical

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

- 416G Coordination Techniques in Distributive Education.** 3 hours.
Development of cooperative relationships with community resources; program development and initiation; selection and development of training stations; placement and supervision of students; and development and evaluation of training plans.

- 417G Curriculum Development for Distributive Education.** 3 hours.
Identification and development of instructional units and teaching aids which integrate student needs and needs of the business community.

- 428G Techniques of Teaching Distributive Education.** 3 hours.
Emphasizes problem solving; use of demonstrations, field trips, audio-visual materials and classroom equipment; and utilization of facilities in local business and industry.

DEPARTMENT OF EDUCATIONAL LEADERSHIP

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

William M. Traugott, Head

Graduate Faculty

Professors: B. Broach, S. Brumfield, E. Burkeen, V. Christenson, C. Clark, P. Constans, N. Deeb, G. Farley, C. Frady, E. Harryman, C. Kreisler, D. Mitchell, J. Sandefur, S. Schnacke, R. Schrader, D. Shannon, V. Sheeley

Associate Professors: R. Adams, W. Ashley, R. Greer, D. Reeves, F. Robinson, W. Traugott, T. Updike, J. Wilder

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

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

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

The Department of Educational Leadership offers programs designed to prepare school personnel for effective leadership in the elementary and secondary schools. The department also offers programs of

preparation for school and professional personnel in the areas of guidance, counseling, and personnel services. The curricula meets professional certification standards in school administration, school counseling, and school supervision. The department also provides education foundations courses which give professional educators a greater understanding of their roles and the function of educational institutions in society.

Master of Arts in Education (School Counseling)

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

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

- A. Elementary School Counselor
550 Introduction to Guidance
552 Individual and Group Analysis
554 Group Guidance
558 Counseling Theory and Practice
560 Counseling Practicum
(Practicum experience must be at the elementary level)
- Courses for the 9-hour subject matter minor will be taken in the area of psychological, physical, and social development of children.
- B. Secondary School Counselor
550 Introduction to Guidance
552 Individual and Group Analysis
*556 Informational Services
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 must meet Graduate College requirements for admission. Course requirements are as follows:

- A. Professional Education (6 hours)
Ed Fnd 500—Research Methods (required) and three hours from Ed Fnd 576, 577, Sec Ed 580, or Hi Ed 675, Hi Ed 685, Psy 510, or Psy 511
- B. Student Personnel Services major (15-18 hours)
Required courses:
664 Introduction to Student personnel Services
668 Special Topics in Student Personnel Services
or
674 Seminar in Student Personnel Services
560H Practicum in Student Personnel Services

Elective courses:
550 Introduction to Guidance
552 Individual and Group Analysis
554 Group Guidance
556 Informational Services
558 Counseling Theory and Practice or other counselor education electives.
- C. Distributed minor (6-9 hours)
Courses to be selected from related areas such as: psychology, sociology, government, home economics and family living, economics, and health and safety or others as appropriate.

Master of Public Service (Counseling Option)

This interdisciplinary program consists of offerings from several departments and is designed to prepare individuals for governmental positions which require administrative training as well as knowledge of the particular areas they are to serve.

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

- A. Organization theory courses—3 hours
Govt. 540 Seminar in Public Administration
Psy 551 Social Psychology of Organizations
Soc 575 Complex Organizations
Mgt 510 Organization Theory
- B. Socio-economic and political factor courses — 6 hours

Graduate Courses in Counselor Education

550 Introduction to Guidance. 3 hours.
Philosophy, organization, administration, and functions of guidance and personnel services.

552 Individual and Group Analysis. 3 hours.
Methods, techniques, and instruments used in assessing and evaluating individuals and groups; administering, scoring, and interpreting both objective and subjective instruments; survey of

research design, statistics, and computer utilization.

554 Group Guidance. 3 hours.
Dynamics and processes within group structures; experiences in the formation of groups and their utilization in group counseling procedures and in guidance aspects of career development and vocational choice.

556 Informational Services. 3 hours.
Sources, types and uses of educational and occupational information applicable to a program of developmental guidance and counseling.

Geog 484G Planning: Theory and Application
Govt 511 Seminar in State and Local Government
Econ 550 Public Sector Economics
Soc 565 Studies in the Community

Required Counselor Education Courses
550 Introduction to Guidance
552 Individual and Group Analysis
558 Counseling Theory and Practice
560 Counseling Practicum

The remaining 9 hours may be selected from
Ed Fnd 500 Research Methods
Ed Fnd 501 Educational Statistics
Cns Ed 554 Group Guidance
Cns Ed 556 Informational Services
Cns Ed 650 Utilization of Community Resources
Cns Ed 656 Seminar in Vocational Guidance and Occupational Adj.
Hi Ed 675 Higher Education in America.

* Note: Other counselor education courses may be selected.

Specialist in Education (Counselor Education major)

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

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

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

Foundations Core — education and research, 6 hours.

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

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

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

558 Counseling Theory and Practice. 3 hours.
Major contemporary theories of counseling; implementation of the various methods and procedures followed in individual and group counseling; laboratory demonstration and participation.

560 Counseling Practicum. 3 hours.
Supervised experiences in a setting related to the area in which the individual plans to seek certification or employment.

- 561 Introduction to Rehabilitation Counseling.** 3 hours.
Basic counseling procedures appropriate to rehabilitation; history, settings and functions of the rehabilitation counselor.
- 650 Utilization of Community Resources in Guidance.** 3 hours.
Individual community surveys of all resources used in guidance and counseling; utilization of these resources in choice of educational program and in career selection.
- 652 Research in Guidance and Counseling.** 1 to 3 hours.
Research problems relating to the organization and administration of guidance programs.
- 654 Educational and Intellectual Analysis of Children and Adults.** 3 hours.
Administration and interpretation of standard mental and aptitude tests as tools of educational and occupational guidance.
- 655 Seminar in Guidance Services in the Elementary School.** 3 hours.
Determining, instituting, and maintaining guidance services that are congruent with the philosophy, curricula, and student patterns within the elementary school.
- 656 Seminar in Vocational Guidance and Occupational Adjustment.** 3 hours.
Vocational guidance and occupational adjustment and its application at all educational levels as well as to business, industry, and government.
- 657 Readings in Contemporary Counseling.** 3 hours.
Significant books and research articles related to counseling theory, theory application, and innovative techniques.
- 658 Seminar in Guidance and Counseling.** 3 hours.
Presentation and discussion of research in guidance and counseling. Emphasizes theoretical and practical criticism of relevant studies in the field.
- 659 Theories of Career Development and Vocational Choice.** 3 hours.
Major theories of vocational development as they relate to educational progress. Topics include vocational choice, development of interests, values and attitudes as related to work, etc.
- 660 Organization and Administration of Guidance Services.** 3 hours.
Effective guidance services in elementary and secondary schools. Basic principles and postulates underlying the justification of guidance services. Emphasis on initiating guidance programs, developing related services, staffing, facilities, budget, etc.
- 661 Seminar in Disability and Rehabilitation Counseling.** 3 hours.
Psychological, physiological, and sociological impacts of congenital and traumatic disabilities, with emphasis on the rehabilitation counselor's role.
- 662 Advanced Counseling Practicum.** 3 to 6 hours.
Supervised, on-campus experiences in counseling elementary, junior and senior high school students, and their parents. Emphasizes educational, vocational, and social-personal planning and problems. Also includes experience in providing consultative services to teachers, principals, agency workers, and other professional people who work with children.
- 663 Counseling the Exceptional Child and Parent.** 3 hours.
General concepts of exceptionality; the needs of and effective counseling techniques for the exceptional child; referral, resources, staffing and coordination efforts of the counselor; the needs of and effective counseling techniques for the parent of the exceptional child.
- 664 Introduction to Student Personnel Services in Higher Education.** 3 hours.
History, philosophy, and development of student services. Includes testing and counseling, financial aids, housing, admissions and records, placement, etc.
- 668 Special Topics in Student Personnel Services in Higher Education.** 3 hours.
- 669 Special Topics in Counseling and Guidance.** 3 hours.
- 674 Seminar in Student Personnel Services in Higher Education.** 3 hours.
Philosophy, organization, and administration of and current practices in student personnel work.
- 699 Specialist Project.** 6 hours.
- 699c Maintaining Matriculation.** 1 to 6 hours.

Master of Arts in Education (School Business Administration)

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

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

Specialist in Education (School Administration)

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

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

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

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

JOINT-DOCTORAL PROGRAM (With the University of Kentucky)

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

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

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

NON-DEGREE PROGRAMS

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

Rank II Non-Degree Programs

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

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

Guidelines

1. Thirty-two (32) hours of upper division undergraduate and graduate courses must be completed.
2. At least 18 of the required hours must be taken at Western Kentucky University.
3. A grade point average no less than that for undergraduate certification shall be required.
4. A minimum of 12 hours must be in professional education and a minimum of 12 hours in cognate areas.
5. At least 12 hours must be in graduate level courses.
6. Coursework taken by correspondence is not accepted.

Rank II (Elementary Education)

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

Six semester hours from

El Ed 503 and Rdg Ed 519 or 523

Nine semester hours from

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

Three to six semester hours from

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

Twelve to fifteen semester hours from

Psy 510, 511, 519, 520, 521, 540, LS 410G, 411G, 445G, 447G, 518, HI Sft 465G, 469G, HEFL 491G, 498G, 576,

577, Ind Ed 465G, Ph Ast 410G, Soc 505, 520, CD 481G

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

Rank II (Secondary Education)

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

Three hours

Sec Ed 580

Three to nine semester hours from

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

Six to nine semester hours from

Sec Ed 445G, Cns Ed 550, 554, Ed Fnd 576, 577,

Sch Ad 585, 598, Rdg 519

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

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

Rank I Programs

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

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

General Guidelines:

1. Rank I classification shall require the completion of either (a) 30 semester hours approved graduate level credit in addition to the requirements for a Rank II classification, or (b) 60 semester hours approved graduate level credit including a master's degree.
2. The student's program shall be planned in consultation with the advisor and shall be related to the professional needs of the individual.
3. A minimum of 15 semester hours must be in courses open only to graduate students.
4. The student shall maintain a B standing, and no credit shall be given for a course grade lower than C.
5. At least 15 of the required hours shall be taken at Western Kentucky University. The remaining hours may be taken, upon approval of the college advisor and the Graduate College, at other institutions provided the grade is A or B.

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

Rank I—Teacher's Program

Rank I (Elementary Education)

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

Twelve semester hours

El Ed 603, 604, 605, Exc Ed 516

Three to six semester hours from

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

Three semester hours from

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

Twelve semester hours from

Psy 510, 511, 519, 520, 521, 540, LS 410G, 411G, 445G
447G, 518, HI Sft 465G, 469G, HEFL 491G, 498G, 576,
577, Ind Ed 465G, Ph Ast 410G, Soc 505, 520, CD 481G

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

Rank I (Secondary Education)

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

Nine semester hours

Exc Ed 516, Sec Ed 604, 605

Three to six semester hours from

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

Three to six semester hours from

El Ed 445G, Cns Ed 550, 554, Ed Fnd 576, 577,

Sch Ad 585, 598, 677, Rdg Ed 519

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

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

Rank I— Guidance Program

Students holding the provisional guidance certificate and having at least one year's experience as a school counselor may pursue the standard certificate for guidance counselors through this program. Of the total 60 hours (Master's and Rank I), at least 12 hours must be taken in the behavioral sciences or subject matter fields other than professional education. The remaining courses are planned in the field of guidance. (For further details see Counselor Education).

Rank I—School Administration

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

Certification for School Principal Endorsement (Elementary or Secondary)

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

1. Completion of requirements for the standard elementary teaching certificate (for elementary principal endorsement) or the standard secondary teaching certificate (for secondary principal endorsement).
2. Three years of successful teaching experience.
3. Completion of a minimum of 45 semester hours of graduate credit including the master's degree. Within these total hours the student must complete the following required courses in education:
500—Research Methods
550—Introduction to Guidance
585—Fundamentals of School Administration
4. Satisfactory score on advanced education section of the GRE.
5. Completion of departmentally approved electives with emphasis in elementary education (for elementary principal endorsement), or secondary education (for secondary principal endorsement) to meet certification requirements and to provide administrative competencies.

Certification for Director of Pupil Personnel Endorsement

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

1. Completion of the requirements for either the standard elementary certificate or the standard high school certificate.
2. Three years of successful teaching experience.
3. Completion of a minimum of 45 semester hours of graduate credit including the master's degree. Within these total hours the student must complete the following required courses in education:
500 — Research Methods
550 — Introduction to Guidance
583 — Accounting for Pupil Personnel
585 — Fundamentals of School Administration

Certification for Supervisor Endorsement

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

1. Completion of the requirements for either the standard elementary certificate or the standard high school certificate.
2. Three years of successful teaching experience.
3. Completion of a minimum of 45 semester hours of graduate credit including the master's degree. Within these total hours, the student must complete the following required courses in education:
500 — Research Methods
585 — Fundamentals of School Administration
519 — Advanced Reading

4. Satisfactory score on the advanced education section of the GRE.
5. Completion of departmentally approved electives selected from curriculum, supervision, administration, and/or cognate areas to meet certification requirements and to provide the necessary competencies.

Certification for Superintendent Endorsement

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

1. Completion of the requirements for either the standard elementary certificate or the standard high school certificate.

2. Completion of a minimum of 60 semester hours of graduate credit including the master's degree.
3. Satisfactory score on the advanced education section of the GRE.
4. Completion of, as a general rule, 39 hours in professional education (within the 60 hour minimum).
5. Five years of successful experience in teaching or administration.
6. Completion of the following required courses in education.
 - 676 — School Finance
 - 677 — School Law
 - 678 — School Plant Administration
7. Completion of departmentally approved electives selected from professional education, behavioral sciences, and/or cognate areas to meet certification requirements and provide administrative competencies.

Graduate Courses in Educational Foundations

- 500 Research Methods.** 3 hours.
Includes theory of research, experimental design, bibliographical and data gathering techniques, and interpretation of results.
- 501 Educational Statistics.** 3 hours.
Graphic and tabular arrangement of data, measures of central tendency and of relationship.
- 548 Research In Curriculum and Instruction.** 1 to 3 hours.
Research in elementary instructional problems in reading, mathematics, science, social studies, English, and in elementary and secondary curriculum.
- 570W Workshops in Education.** 1 to 3 hours.
Special short courses on educational problems.
- 576 Social Foundations of Education.** 3 hours.
Selected problems in American society, their impact on the educational system, and the possible role of that system in resolving such problems.
- 577 Philosophy of Education.** 3 hours.
The relationship between philosophy and education. Emphasizes the development of an effective individual philosophy of education.
- 675 Higher Education in America.** 3 hours.
History, purpose, philosophy, organization, curriculum, student personnel 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

- 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.
- 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.

- 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 Seminar in Foundations of Education.** 3 hours.
Prerequisite: Permission of instructor.
Inter-disciplinary seminar.
- 681 Secondary School Curriculum.** 3 hours.
Critical issues and suggested means of resolving these issues for an improved educational program.
- 682 School-Community Relations.** 3 hours.
Background, need, and techniques for establishing a wholesome working relationship with laymen with emphasis of their involvement in school programs.
- 683 Seminar in Curriculum Development.** 3 hours.
Examination of factors influencing curriculum development.
- 684 Supervision of Elementary School Subjects.** 3 hours.
Applying principles of supervision to problems of instruction in the elementary grades.
- 686 Principles of Supervision.** 3 hours.
The instructional aspect of school administration: organization, problems, principles, and techniques of improving in-service training for teachers.
- 688 Evaluating the Elementary School.** 3 hours.
Techniques for and approaches to evaluating the school for accreditation purposes as well as for general improvement of programs. Designed specifically for prospective administrative

and/or instructional leadership personnel.

- 691 Elementary School Organization and Administration.** 3 hours.
Prerequisite: Sch Ad 585.
Problems of instruction; classification, promotion, and guidance of pupils; custodial services, and relationships with patrons and community.
- 692 Secondary School Organization and Administration.** 3 hours.
Programs of instruction; classification, promotion, and guidance of pupils; relation of principal to non-professional personnel; and relationship with patrons and community.

- 694 Seminar in Educational Administration.** 3 hours.
Emphasis on current research and identification of research needed in educational administration.
- 695 School Surveys.** 3 hours.
Gathering and interpreting data; evaluating educational programs and facilities; predicting future enrollment, and presenting results to school authorities.
- 696 Advanced Theory in Education Administration.** 3 hours.
Prerequisite: Permission of instructor.
Theoretical approaches to the study of

education administration and leadership.

- 697 Research in Administration and Supervision.** 1 to 3 hours.
Special projects in administration and supervision.
- 698 Practicum in Administration and Supervision.** 3 to 6 hours.
Prerequisite: Permission of instructor.
Internship or other field experience for administrators and supervisors.
- 699 Specialist Project.** 6 hours.
- 699c Maintaining Matriculation.** 1 to 6 hours.

DEPARTMENT OF INDUSTRIAL EDUCATION AND TECHNOLOGY

**ENVIRONMENTAL SCIENCE AND TECHNOLOGY BUILDING
ROOM 204 (502) 745-3251**

Franklin Conley, Head

Graduate Faculty

Professors: F. Conley, E. Hein, F. Pittman, D. Wendt

Associate Professors: R. Eversoll, T. Tomazic

Assistant Professors: G. Roberts, D. Towell

Degrees Offered: Masters of Arts in Education (Industrial

Degrees Offered: Masters of Arts in Education (Industrial Education major or minor), Specialist in Education (for secondary teachers in the area of Industrial Arts).

Applicants must meet the general requirements of the Graduate College and of the College of Education.

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

This program is designed for the professional development of persons who are teaching in or administering industrial education programs and also serves as the basis for entering a specialist or doctoral program. Its flexibility meets the needs of students with varying backgrounds and goals.

Individuals following this program must meet all requirements for standard high school certification (see Secondary Education).

The major requires 18-21 hours and the minor requires 12-15 hours of industrial education courses. The remaining hours, in both cases, will be taken in professional education courses.

Specialist in Education (See Secondary Education)

Graduate Courses in Industrial Education

- 510 Investigations in Industrial Education.** 3 hours.
Individual research under the direction of a graduate faculty member.
- 520 Philosophy of Industrial Education.** 3 hours.
The development of industrial education in Europe and America. Emphasis on influences, experiments, and trends leading to modern practices in industrial, vocational, and technical education.
- 524 Organization and Teaching of Industrial Education for the Handicapped and Disadvantaged.** 3 hours.
Current research and literature on the handicapped and/or disadvantaged surveyed in relation to the adaptation of industrial education activities.
- 525 Industrial Education Curriculum.** 3 hours.

Curriculum practices, concepts, and trends in curriculum development and improvement of programs.

The following independent study courses are for students pursuing specific areas.

- 530 Advanced Drafting.** 3 hours.
- 532 Industrial Design.** 3 hours.
- 542 Industrial Electricity and Electronics.** 3 hours.
- 544 Wood Technology.** 3 hours.
- 548 Graphic Arts.** 3 hours.
- 552 Advanced Machine Shop.** 3 hours.
- 556 Power and Auto Mechanics.** 3 hours.
- 560 Metal Technology** 3 hours.

- 564 Problems in Crafts.** 3 hours.
- 568 Ceramics and Plastics.** 3 hours.
- 572 General Shop.** 3 hours.
- 599 Thesis Research and Writing.** 6 hours.
- 599c Maintaining Matriculation.** 1 to 6 hours.

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

- 410G Industrial Arts Problems.** 3 hours.
Prerequisite: Departmental approval.
Individual study and/or research in industrial education.
- 430G Plastics Mold Design and Construction.** 3 hours.
Prerequisite: Consent of instructor.
Plastics mold design related to the physical characteristics of plastics, molding techniques, and mold construction. Includes mold design for each of the

major processing techniques, electrical discharge machining, electroforming, pantograph milling, plaster tooling, hobbing and wood fabrication.

439 Workshop in Industrial Education.

WG 3 hours.
Special short course on problems in industrial education and technology.

450G Planning Industrial Education Facilities.

2 hours.
The planning and designing of shops and laboratories for vocational-industrial and technical education.

452G Industrial Wood Processing II.

3 hours.
Prerequisite: Departmental approval.
The setup and use of woodworking machines. Includes tooling, jig and

fixture design, and the mass production of wood products. Field trips.

460G Seminar in Vocational-Industrial and Technical Education.

3 hours.
Individual and group investigations of current problems and issues in the field of vocational-industrial and technical education.

464G The Organization and Supervision of Vocational-Industrial and Technical Student Teaching.

2 hours.
Philosophy, theory, and practices essential to an effective student teaching program. Also covers vocational-industrial and technical accreditation and certification standards, personal and professional relationships, and evaluation of student teachers.

465G Industrial Arts for Elementary Teachers.

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

495G Acoustic Guitar Construction.

4 hours.
Prerequisites: IE 103 and 341 or equivalent.
The Haile method of steel string and/or classic guitar construction. Students are required to construct an acoustic guitar and related jigs and fixtures. Lecture, lab, and field trips.

498G Advanced Wood Products Analysis.

3 hours.
Prerequisite: Departmental approval.
Seminar on selected wood products topics. Current research and development as it relates to the wood products industries. Field trips.

DEPARTMENT OF PHYSICAL EDUCATION AND RECREATION

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

Burch Oglesby, Head

Graduate Faculty

Professors: J. Jones, B. Oglesby

**Associate Professors: T. Crews, W. Kummer, S. Laney,
A. Little, W. Meadors**

Assistant Professors: J. Carter, C. Hughes

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

PER 501, 12-27 hours of physical education coursework (selected in consultation with the advisor), and 0-6 hours from allied areas. Although Plans A and B are available, candidates 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 15-21 hours in physical education including PER 501 and three courses selected from PE 502, 503, 504, 505, 506, and 507. The student minoring in physical education must take 12-15 hours in physical education including six hours selected from PE 502, 503, 504, 505, and 506. The remainder of the required 30 hours, in both cases, is taken in professional education (see secondary education).

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. The research tool requirement may be met by demonstrating either (1) competency in the use of appropriate research techniques, or (2) reading proficiency in a foreign language.

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.

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.
- 530 Independent Investigations in Physical Education.** 3 hours.
Prerequisites: PE 501 and consent of instructor.
Research problems or projects in the organizational, administrative, or supervisory areas of physical education.
- 570 Workshop in Physical Education.** 3 hours.
Workshop and/or seminars dealing with special problems and current topics in physical education.
- 599 Thesis Research and Writing.** 6 hours.
- 599c Maintaining Matriculation.** 1 to 6 hours.

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

- 430G Physical Education Curriculum in the Elementary School.** 3 hours.
- 454G Problems and Trends in Elementary Physical Education.** 3 hours.
- 456G Advanced Studies in Physical Education and Athletics.** 3 hours.
- 490G Evaluation in Physical Education.** 2 hours.
Prerequisite: Ed 340.
- 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, 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.
- 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 in 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 Independent Investigations in Recreation.** 3 hours.
Special research problems in the area of recreation.
- 590 Internship in Recreation.** 3 hours.
Experience in recreation planning, leadership, supervision, and program evaluation through work in recreation, park, and other leisure oriented settings. Supervised by University faculty and personnel from area recreation agencies.
- 599 Thesis Research and Writing.** 6 hours.
- 599c Maintaining Matriculation.** 1 to 6 hours.
- ## The following 400-level Recreation courses may be taken for graduate credit
- 410G Therapeutic Recreation.** 3 hours.
Principles, trends and programs of therapeutic recreation. Selected disabilities considered.
- 412G Adaptive Activities and Facilities for Recreation.** 3 hours.
Methods of adapting recreational programs, activities, and facilities for the handicapped.
- 432G Principles of Outdoor Recreation.** 3 hours.
Values and extent of outdoor recreational philosophy based on legislation, geographic factors, land use, standards, agencies, and economics.
- 433G Camp Administration.** 3 hours.
Status, purpose, and administration of organized camping. Includes history and trends, selection and training of staff, health and safety considerations, etc.
- 434G Development of Nature Oriented Areas and Facilities.** 3 hours.
Nature trail design and preparation, live and inanimate exhibit design and preparation, resource inventory, building, exhibit material purchase, vandalism, etc.
- 435G Techniques in Outdoor Education.** 3 hours.
Field trips, nature crafts, audio-visual aids and interpretive materials, etc., and their importance in developing outdoor education as a recreational activity.
- 456G Advanced Studies in Recreation.** 3 hours.
- 470G Administration of Municipal Recreation.** 3 hours.
Covers various aspects of recreation in a municipal setting. Includes personnel, financing, facilities, planning, maintenance, and such other topics as legislation and vandalism.
- 471G Community Centers and Playgrounds.** 3 hours.
Playground and community center operation. Teaching techniques, programming, and problems relating to community recreation.
- 480G Recreation Management.** 3 hours.
Practical approach to management of park facilities and personnel. Includes program planning, design, and standards.
- 481G Recreation Seminar.** 3 hours.
Introduces current problems, trends, and issues in the area of leisure services.
- 482G Recreation Workshop.** 1-3 hours.
In-depth study of specific skill areas relating to the recreational profession.

DEPARTMENT OF PSYCHOLOGY

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

John O'Conner, Head

Graduate Faculty

Professors: J. Cangemi, L. Clark, J. Craig,
W. Cunningham, E. Dotson, A. Laird, C. Martray,
L. Metze, J. O'Connor, H. Robe, R. Simpson

Associate Professors: D. Grice, B. Howton, C. Layne,
L. Layne, R. Mendel, R. Miller, S. McFarland, E. Owen,
R. Poe, D. Roenker

Assistant Professors: L. Alexander, N. Cohen, C. Elson,
S. Fisicaro, L. Hanser, D. Roenker

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

Master of Arts in Psychology

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

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

Core requirements for all options are the following:

- Psychology 512, 563, and 599 (thesis)
- Research tool requirement
- Comprehensive oral examination, required at the time of thesis defense

Clinical Psychology

This option is practice-oriented and offers a broad foundation for individuals planning to render psychological services at the MA level. Students prepare for the certification examination administered by the Kentucky State Board of Psychology and by boards in other states requiring certification for individuals who provide psychological services at the MA level. Students are expected to adhere to the APA *Ethical Standards of Psychologists* and to maintain a professional demeanor in clinical activities. A minimum of 50 semester hours is required.

Specific course requirements are as follows: Psychology 541, 560, 561, 640, 641, 642, 660, 661, and 562, 662 (Practicum 10 hours). Students may elect to take

additional hours in home economics and counselor education as well as additional hours in psychology.

Industrial-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. The Equal Employment Opportunity Commission's (EEOC) Guidelines on employment selection procedures and familiarity with relevant court decisions are major emphases of the program. A four-to six-months paid internship is available to those interested in personnel psychology. A minimum of 42 hours is required.

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

School Psychology

This option emphasizes training as a diagnostician-consultant. The student will function as an integral part of the total program of pupil-services. Each student receives on-site experience in public schools, school related practicum assignments in the department's psychological clinic, and experience as a member of an interdisciplinary team in the College of Education's Child Diagnostic Clinic. Upon completion of the program the student is recommended to boards of education and state boards of psychological examiners for certification as a school psychologist. Sixty hours are required.

Specific course requirements are as follows: Psychology 510, 520, 560, 562, 519, 592, Elementary Education 503, Exceptional Child Education 516, Reading Education 519, Counselor Education 660.

General-Experimental Psychology

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

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

School Psychometrist

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

Master of Arts in Education (Psychology major or minor)

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

Graduate Courses in Psychology

- 500 Trends and Scientific Approaches in Psychological Thinking.** 3 hours.
Historical and philosophical bases of contemporary psychological thought and research with emphasis on the philosophy and logic of science as it pertains to psychology.
- 510 Advanced Educational Psychology.** 3 hours.
Psychology of learning. Different psychological theories, methods and techniques.
- 511 Psychology of Learning.** 3 hours.
Theories of learning including conditioning, social learning, reinforcement, problem solving, motivation, and structure of the learning situation.
- 512 Seminar in Experimental Design.** 3 hours.
Required for all graduate students in psychology. Understanding the principles of experimental design and the application of appropriate statistical techniques. Includes the design of an experimental project.
- 513 Advanced Statistical Analysis.** 3 hours.
Prerequisite: Psy 512 or permission of instructor.
Advanced analysis techniques 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. 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.
Prerequisite: Permission of instructor.
Historical and present motivation theories. Particular emphasis on a current literature survey of both human and animal research.
- 519 Psychological Perspectives on Classroom Behavior.** 3 hours.
Prerequisite: Psy 510.
Strategies and techniques designed for coping with problem behaviors in the classroom. Covers both preventative and problem encounter measures.
- 520 Psychology of Individual Differences.** 3 hours.
Research and theory in developmental aspects of behavior from the prenatal period to adulthood with emphasis upon individual differences.
- 521 Advanced Child Psychology.** 3 hours.
Particular emphasis upon a critical review of current research in child development.
- 522 Advanced Adolescent Psychology.** 3 hours.
Current research and theories in the area of adolescent psychology as they relate to physical, social, emotional and intellectual development.
- 523 Cognitive Theory.** 3 hours.
Information processing, thinking and cognition. Covers major theories and research techniques in the area.
- 540 Behavior Problems of Childhood and Adolescence.** 3 hours.
The major forms of psychopathology in children and adolescents, with emphasis upon recent research, classification systems and developmental patterns. Also covers clinical and school treatment of behavior problems encountered in the school setting.
- 541 Introduction to Clinical Psychology.** 3 hours.
Methods and research in clinical psychology with emphasis on the use of clinical reports prepared for schools and clinics.
- 550 Personality Theory.** 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.
- 551 Social Psychology of Organizations.** 3 hours.
The dynamics of groups and organizations. Current theory and research in psychology of organizations.
- 552 Advanced Social Psychology.** 3 hours.
Prerequisite: Permission of instructor.
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.
- 560 Individual Assessment—I.** 3 hours.
Prerequisite: Permission of instructor.
Administration of the WICS, WAIS, WPPSI, BINET, and other individually administered tests used as basic tools in education, occupational guidance and clinical diagnosis.
- 561 Individual Assessment — II.** 3 hours.
Prerequisite: Permission of instructor.
Interpretation of the tests commonly used in educational, vocational guidance and clinical diagnostics. Emphasis on report writing and basic clinical practice.
- 562 Practicum in Psychological Assessment.** 1 to 3 hours.
Corequisite: Psy 560 or 561.
Supervised experience in the administration and interpretation of tests used in an educational or clinical setting for the diagnosis of intellectual and learning problems. (May be repeated.)
- 563 Test Construction and Psychometric Theory.** 3 hours.
Introduction to psychometrics with emphasis on both technical and ethical problems involved in the use and construction of psychological measurement instruments.
- 570 Introduction to Industrial/Organizational Psychology.** 3 hours.
Overview of the I/O discipline. Acquaints students with the major perspectives, methods, and applications in the content areas of this concentration.
- 571 Personnel Psychology.** 3 hours.
Employee selection procedures, with emphasis on methods and techniques of job analysis, interviewing, testing, etc. Direct involvement in data collection and analysis.
- 572 Organizational Psychology.** 3 hours.
Selected topics relevant to work organizations. Emphasizes current theories and research practices.
- 580 Advanced Physiological Psychology.** 3 hours.
Prerequisite: Permission of instructor.
Anatomy of the nervous system, relationships among the components of the nervous system and psychological functioning.
- 581 Laboratory in Advanced Physiological Psychology.** 3 hours.
Corequisite: Psy 580.
Physiological techniques of electrical recording and electrical chemical stimulation.
- 590 Readings or Research in Psychology.** 1 to 3 hours.
Prerequisite: Departmental permission only.
Individual readings or research. Arrangements must be made before enrollment.
- 591 Internship in College Teaching.** 1 to 2 hours.
Prerequisite: Permission only.
Problems and methods of teaching at the college level. Students enrolled in this course will concurrently teach a course in introductory or general psychology.
- 592 Seminar and Field Experiences in School Psychometry.** 3 hours.
Professional seminar and field experience for school psychometrists and psychologists. To be taken in the student's last semester in residence.
- 599 Thesis Research and Writing.** 6 hours.
- 599c Maintaining Matriculation.** 1 to 6 hours.
- 640 Psychopathology.** 3 hours.
Prerequisite: Permission only.
Major forms of child and adult psychopathology with emphasis upon recent research, classification systems, modification of deviant behavior and developmental patterns of learning and motivation variables.
- 641 Clinical Interviewing and Psychotherapy I.** 3 hours.
Selected theories and techniques of psychotherapy and counseling. Also covers group therapy, clinical topics, and professional and ethical issues.
- 642 Clinical Interviewing and Psychotherapy II.** 3 hours.
Prerequisite: Psy 641.
Continuation of 641 with emphasis on group, family, and marital psychotherapy.
- 660 Psychological Evaluation I.** 3 hours.
Prerequisite: Psy 560.
Personality diagnosis using objective and projective techniques with emphasis on current research interpretation, and communication of assessment information.
- 661 Psychological Evaluation II.** 3 hours.
Prerequisite: Psy 660.
A continuation of 660 with emphasis on

personality measures and procedures for assessing psychological and neuro-psychological disorders.

- 662 Practicum in Psychological Practice.** 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.
- 670 Equal Employment Opportunity, the Law, and Ethical Considerations.** 3 hours.
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.

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

- 400G History and Systems of Psychology.** 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.
- 410G Psychology of Learning.** 3 hours.
Prerequisites: Psy 201 and 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.
- 411G Psychology of Sensation and Perception.** 3 hours.
Prerequisites: Psy 201 and 210 or permission of instructor.
Basic data and theories of psychophysics, illusions and other topics fundamental to the understanding of sensory and perceptual processes.
- 412G Psychology of Motivation and Emotion.** 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.
- 422G Adolescent Psychology.** 3 hours.
Behavior and development from early adolescence to adulthood with emphasis on a critical review of research and literature in the field.
- 423G Psychology of Adult Life and Aging.** 3 hours.
Prerequisites: Psy 100.
Early adulthood, mid-life, and old age. Both descriptive and theoretical, the emphases will be on contemporary psychological theories and literature, methodological issues, and the interaction of psychological, biological, social, and environmental factors in adulthood and aging.
- 432G Psychology of The Gifted and Creative.** 3 hours.
Prerequisite: Psy 100.
Identification of gifted children and adults with emphasis on educational programs for the maximum development of giftedness.
- 440G Abnormal Psychology.** 3 hours.
Prerequisite: Six hours in psychology.
Forms of abnormal behavior, etiology,

developmental courses, interpretations, behavioral manifestation and treatment programs.

- 441G Psychological Aspects of Alcoholism.** 3 hours.
Prerequisites: Psy 440 and permission of instructor.
Application of psychological theories and research to the treatment of alcoholism.
- 443G Behavior Theory and Application.** 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. Cross-listed with Special Education 443.
- 450G Introduction to Personality Theory.** 3 hours.
Prerequisite: Nine hours of psychology or permission.
Major theoretical approaches to the study of personality. Includes historical as well as contemporary theorists and avenues of analysis and concepts in the field of personality.
- 460G Methods and Research in Social Psychology.** 3 hours.
Research methods of social psychology and examination of major research areas. Primarily for psychology majors and minors.
- 490G Special Topics in Psychology.** 3 hours.
Faculty directed research and/or readings in psychology.
- 499G Senior Seminar in Psychology.** 3 hours.
Major concepts and issues in psychology. Directed reading, guest lectures, field trips, and/or oral reports by students are utilized.

DEPARTMENT OF TEACHER EDUCATION

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

Curtis L. Englebright, Head

Graduate Faculty

Professors: K. Brenner, G. Crumb, C. Englebright, D. Geeslin, J. Gibbs, H. Hardin, J. Hicks, J. Johnson, J. Koper, A. Laman, J. McGuire, R. Melville, A. Munson, W. Nolan, R. Pankratz, R. Roberts, J. Scarborough, R. Stevenson, D. Watts

Associate Professors: C. Crooks, G. Dillingham, E. Hanes, R. Hicks, R. Otto, R. Panchyshyn, J. Pollock, E. Rich, D. Ritter, H. Simmons, J. Vokurka

Assistant Professors: W. Rigg, A. Ruff, S. Taylor, J. Zamkoff

Master of Arts in Education (Elementary Education major)

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

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

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

- A. Educational Foundations (6 hours)
Ed Fnd 500 Research Methods
El Ed 503 Org of Elem Curr

B. Professional Education (12 hours) in one of the following areas of emphasis:

1. General Elementary Education
3 hours in advanced reading instruction plus 3-9 hours selected from Ed 505, 506, 507, and 445G. Any remaining hours may be chosen, with advisor approval, from Ed Fnd 548, 576, 598, and Cns Ed 550.
2. Emphasis in Early Childhood Education
3 hours in advanced reading plus Ed 508, 509, and 412G. (Ed 493 — Student Teaching, Kindergarten, must also be taken, although credit is not received.)
3. Emphasis in Reading
Ed 519, 520, 521, and 522.
4. Exceptional Child Education (see requirements, as outlined elsewhere)

C. Minor Area (12 hours)

1. Subject matter (non-education) courses, selected with advisor approval, from one, two or three areas (courses from a maximum of three areas may be used in the minor).
2. Elementary Librarian emphasis (Available to general elementary students) — See Department of Library Science and Instructional Media.

Master of Arts in Education (Junior High/Middle School major)

This program leads to the standard junior high school certificate and requires the following:

- A. Professional Education (minimum of 9 hours) Ed Fnd 500 plus at least six additional hours chosen, with advisor approval, from the following areas:
 1. Curriculum development
 2. Advanced study in human growth and development
 3. The psychology of learning
 4. A seminar devoted to the methods of teaching
 5. Foundations in education — sociological, psychological, philosophical, and historical
- B. Area(s) of academic specialization (minimum of 12 hours)
- C. Any remaining hours are selected, with advisor approval, to meet the individual needs of the teacher

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

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

Agriculture, art, biology, business education and office administration, chemistry, communication, economics, English, English and allied language arts area, French, geography, German, government, health, health and safety, history, home economics, industrial education, library science, math, math-

science area, music, physical education, psychology, reading, science area, secondary education, social science area, and Spanish.

This program permits minors in the following areas:

Agriculture, art, biology, business education and office administration, chemistry, communication, distributive education, drama/theatre, economics, English, folk studies, French, geography, German, Government, health, health and safety, history, home economics, industrial education, library science, mathematics, music, physical education, physics, psychology, science area, secondary education, sociology, and Spanish.

General Requirements:

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

One course from the following:

Sec Ed 528 through 542 — Seminar
Sec Ed 543 — Interactive Teaching Skills
Sec Ed 544 — Classroom Teaching Skills
Ed Fnd 576 — Social Foundations of Education
Ed Fnd 577 — Philosophy of Education
Psy 510 — Advanced Educational Psychology
Psy 511 — Learning

- B. Elective professional courses can be selected from the following (3 to 9 hours):
Any courses listed under A above
Sec Ed 444G — Reading in Jr/Sr High School
Sec Ed 455G — Junior High School
Sec Ed 445G — Audio Visual
Sec Ed 570W — Workshop
Sec Ed 571 — Junior High Curriculum
Reading Ed 519 — Foundations of Reading
Sch Adm 585 — Fundamentals of School Adm
Sch Adm 598 — Supervision of Student Teachers
Cns Ed 550 — Introduction to Guidance
Cns Ed 554 — Group Guidance
- C. Area of academic specialization (at least 12 hours); student must meet the requirements for the declared, academic major/minor, as outlined by the administering department.

Reading Major Requirements

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

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

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

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

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

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

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

Specialist Degree in Education (Elementary Education, Secondary Education)

This post-master's degree provides opportunity for the advanced graduate student to improve the foundations and competencies for teaching. The program may also be structured to meet Rank I requirements under Kentucky's minimum foundation program of education. The following emphases or specializations are available to the elementary education major: reading, early childhood education, general curriculum and instruction. Available concentration areas for secondary education majors are science, social science, language arts, and vocational education.

In addition to meeting the admission requirements of the Graduate College, applicants must meet the following departmental requirements:

1. Three years (two years for secondary education majors) of teaching experience at the appropriate level. (For elementary education majors, up to two years of experience may be waived in favor of equivalent experience)
2. Four letters of recommendation: two from graduate faculty members and two from professional associates in administrative and/or supervisory roles.

The student's program is individually planned to include educational foundations and professional education coursework, cognate area coursework and the specialist project.

The student's graduate committee will assist in the development of the program, supervise the research project, and administer the final comprehensive examination.

Graduate Courses in Teacher Education

Early Childhood Education (Ear Ch Ed)

- 508 Child Development and Child Study for Elementary Teachers.** 3 hours.
Prerequisite: Ed Fnd 500 or permission of instructor.
Educational implications of major theories of child development. Includes an intensive study of a child or children and interpretation of the collected data in terms of educational techniques and practices.
- 509 Curriculum Trends in Early Childhood Education.** 3 hours.
Current national and international issues and problems in preschool and early elementary education with emphasis on program planning for curriculum improvement.

The following 400-level Ear Ch Ed course may be taken for graduate credit

- 412G Materials and Methods in Preschools.** 3 hours.
Organization of educational programs for kindergartens and nursery schools;

planning and use of materials; individual and group needs. Lecture and lab.

Elementary Education (El Ed)

- 503 Organization of the Elementary School Curriculum.** 3 hours.
Principles and practices in elementary school curriculum construction. Emphasis on forces affecting curriculum, current innovations, and trends.
- 505 Advanced Materials and Methods in Modern Mathematics for Elementary Teachers.** 3 hours.
Kindergarten through grade eight. Involves the conceptual, the computational and application aspects of mathematics with emphasis on the structural aspects of mathematics and on the "why" of arithmetic computation.
- 506 Seminar in Elementary School Science.** 3 hours.
Advanced methods and materials for teaching science in the elementary school.
- 507 Advanced Materials and Methods in Social Studies.** 3 hours.
Concepts and objectives, classroom organization for instruction, current strategies in teaching content, and materials available.
- 543 Interactive Teaching Skills.** 3 hours.
Opportunity for elementary and second-

ary teachers to develop interactive teaching skills by selecting and completing two of four minicourses developed by Far West Laboratory for Educational Research and Development.

- 544 Classroom Teaching Strategies.** 3 hours.
Opportunity for elementary and secondary teachers to extend their teaching strategies by completing two of five minicourses developed by the Far West Laboratory for Educational Research and Development.
- 545 Investigations in Classroom Teaching.** 1 to 3 hours.
Opportunity for elementary teachers to engage in the concentrated study of specific problems and/or the development of specific skills related to effective classroom instruction.
- 599 Thesis Research and Writing.** 6 hours.
- 599c Maintaining Matriculation.** 1 to 6 hours.
- 603 Advanced Seminar Elementary Curriculum.** 3 hours.
Strategies and models to assist the elementary classroom teacher in assuming an active role in total elementary school curriculum development.
- 604 Management of the Learning Environment I.** 3 hours.
The first of a two-course sequence designed to enable elementary teachers to utilize Mastery Learning strategies

and related teaching skills to increase student achievement and improve student attitudes toward learning.

- 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.
- 699 Specialist Project.** 6 hours.
- 699c Maintaining Matriculation.** 1 to 6 hours.

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

- 420G Reading in the Primary Grades.** 3 hours.
Prerequisite: Ed 220.
Principles and methodologies currently in use at the primary (K-3) school levels.
- 421G Reading in the Intermediate Grades.** 3 hours.
Prerequisite: Ed 220.
Principles and methodologies currently in use at the intermediate (4-6) school levels.
- 445G Audio-Visual Materials and Methods.** 3 hours.
Instruction and laboratory experience in the operation and maintenance of equipment; theory relative to effective practices in audio-visual techniques. Cross-listed with LSIM.
- 446G Selection, Acquisition and Evaluation of Non-Print Material.** 3 hours.
Instruction and experience in locating sources of supply for non-print materials and use of appropriate selection aids, acquisition procedures and evaluative techniques appropriate to non-print materials. Cross-listed with LSIM.

Exceptional Child Education (Ex Ch Ed)

- 516 The Exceptional Child: Perspectives and Issues.** 3 hours.
Characteristics, needs, and problems of children who are atypical in the mental, physical, sensory, emotional, and social areas of development.
- 518 Seminar: Problems in Special Education.** 3 hours.
Prerequisite: Exc Ed 516.
Issues in Special Education. Classroom experiences to develop awareness of and sensitivity to educational needs.
- 530 Advanced Assessment Techniques.** 3 hours.
Alternatives to global assessment of various exceptional conditions in educational planning for exceptional children. Emphasizes use and construction of criterion measures and critical analysis of test components.
- 531 Advanced Prescriptive Teaching.** 3 hours.
Adapting the learning environment to the learner. The affective, cognitive, and psychomotor aspects of a specialized learning environment.
- 532 Intervention Strategies with Parents.** 3 hours.
Interpreting programs for handicapping conditions to maximize family involve-

ment. Emphasizes the attitudes, skills, and knowledge taught in the educational program.

- 533 Seminar: Curriculum for Learning and Behavior Disorders.** 3 hours.
Development, adaptation, and evaluation of curricula, methods, materials, and resources. Implementing and evaluating instructional programs.
- 534 Seminar: Research in Exceptional Child Education.** 3 hours.
Non-categorical and discrete areas of exceptionalities. Emphasis on an independent research project.
- 535 Advanced Curriculum for the Moderately Retarded.** 3 hours.
Curricula and programs for the moderately retarded. Focuses on a continuum of services philosophy for the handicapped.

The following 400-level Ex Ch Ed course may be taken for graduate credit

- 460G Special Problems.** 1 to 3 hours.
Investigation of special problem from an area of individual interest.

Reading Education (Rdg Ed)

- 519 Foundations of Reading Instruction.** 3 hours.
Analysis of the reading process with emphasis on the psychological and physiological foundations of the reading act.
- 520 Clinical Diagnosis of Reading Disabilities.** 3 hours.
The nature and causes of reading disabilities and investigation of general and specific principles and approaches to diagnosis. Actual case studies using both group and individual tests in diagnosis.
- 521 Correction of Reading Difficulties (Practicum).** 3 hours.
Instructional techniques for use with individuals or groups involved in remedial reading instruction; materials and procedures; clinical experiences with remedial students.
- 522 Investigations in Reading.** 1, 2, or 3 hours.
Maximum total credit allowed 3 hours.
Individual investigation of the research and descriptive literature in the field of reading.
- 523 Diagnostic Reading Procedures for Classroom Teachers.** 3 hours.
Emphasizes practical methods of reading appraisal, diagnostic procedures, and materials essential for developing teaching strategies in reading instruction.
- 620 Advanced Diagnosis of Reading Problems.** 3 hours.
Provides experience in advanced testing materials in diagnosing severely retarded readers.
- 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.
- 534 Seminar in Mathematics Education.** 3 hours.
Prerequisite: Permission of instructor.
Covers newer concepts in curriculum and methods of instruction, current research and problems in mathematics education.
- 535 Seminar in Music Education.** 3 hours.
Historical, philosophical and psychological foundations of music education; application of the principles of education to the music program. Emphasis on current trends in educational thought and their implications for instruction, supervision, administration and evaluation in music education.
- 536 Seminar in the Teaching of Physical Education.** 3 hours.
Traditional and recent techniques, methods and knowledge in the practical application of scientific principles to the teaching of physical education and the coaching of sports and games. Investigation in specific problems through lectures, discussion groups, demonstrations, and use of audiovisual aids.
- 537 Seminar in Science Education.** 3 hours.
Prerequisite: Permission of instructor.
Includes the history and comparative study of science teaching, curriculum and course content changes, materials available, evaluation, methods in science teaching, professional organizations, and research in science education.

538 Seminar in Social Studies Education. 3 hours.
Prerequisite: Permission of instructor.
Covers newer concepts in curriculum and methods of instruction as well as current research in social studies education.

539 Seminar in Agriculture Education. 3 hours.
Current problems in the organization, teaching supervision, administration and evaluation of agricultural education programs. Investigation, papers, and reports.

540 Seminar in Home Economics Education. 3 hours.
Prerequisite: HE 572 or consent of instructor.
Current trends in family life education with emphasis on individualized instruction, team teaching and audiovisual aids and their use in improved learning.

541 School Media Programs. 3 hours.
Historical development, exploration of curricular trends and innovations, organizations for library services, materials and equipment available, and problems in school librarianship.

542 Seminar in Speech Education. 3 hours.
Includes historical development, exploration of curricular trends and innovations and current research and problems.

543 Interactive Teaching Skills. 3 hours.
Cross-listed with EI Ed.

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

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

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

580 The Curriculum. 3 hours.
Philosophy, principles and practices of curriculum improvement.

599 Thesis Research and Writing. 6 hours.

599c Maintaining Matriculation. 1 to 6 hours.

604 Management of the Learning Environment I. 3 hours.
The first of a two-course sequence designed to enable elementary teachers to utilize Mastery Learning strategies and related teaching skills to increase student achievement and improve student attitudes toward learning.

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.

699 Specialist Project. 6 hours.

699c Maintaining Matriculation. 1 to 6 hours.

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

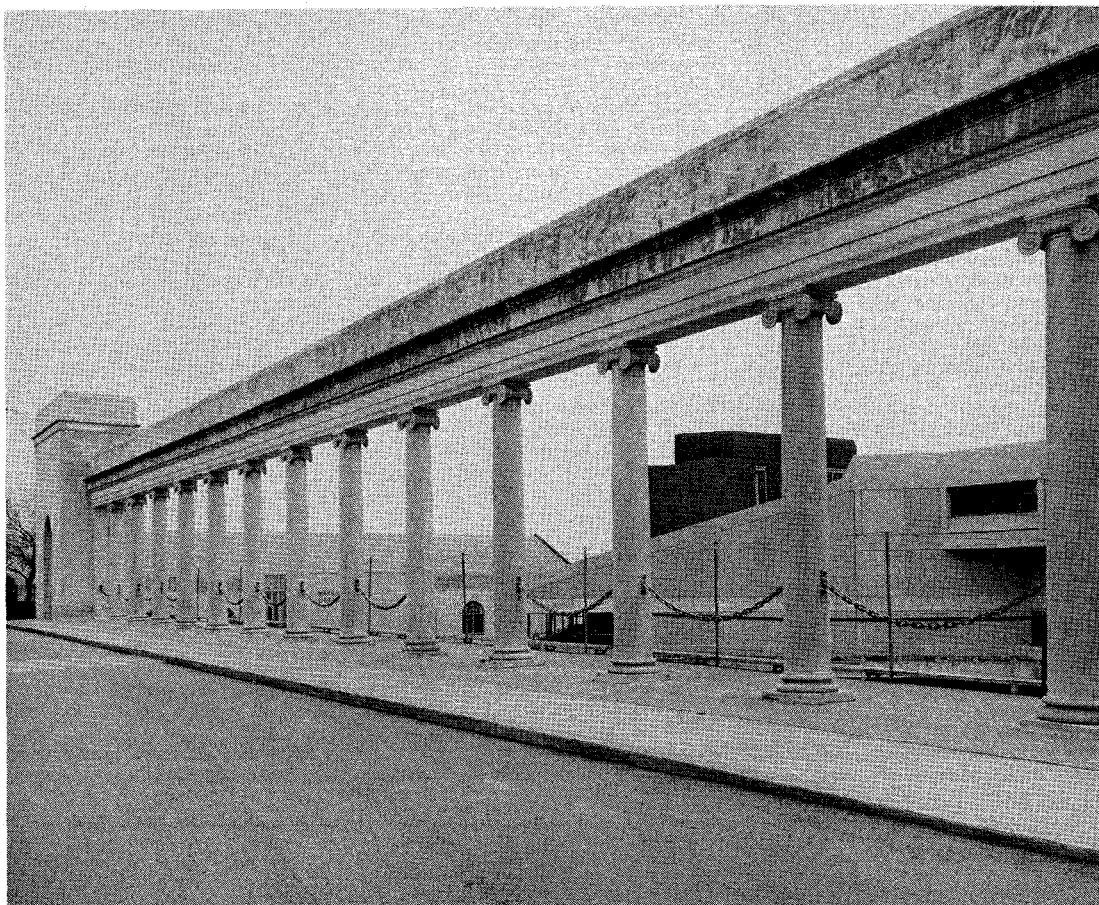
444G Reading Instruction in Junior and Senior High Schools. 3 hours.
Principles, psychology and methodologies for teaching both the general and specialized reading skills in the secondary grades.

445G Audio-Visual Materials and Methods. 3 hours.
Instruction and laboratory experience in the operation and maintenance of equipment; theory relative to effective practices in audio-visual techniques.

446G Selection, Acquisition and Evaluation of Non-Print Materials. 3 hours.
Prerequisite: Permission of instructor.
Instruction and experience in locating sources of supply for non-print materials and use of appropriate selection aids; acquisition procedures and evaluative techniques appropriate to non-print materials. Cross-listed with LSIM.

455G The Junior High School. 3 hours.
The junior high/middle school and its role in American education. Philosophy, functions, and total program of early adolescent education.

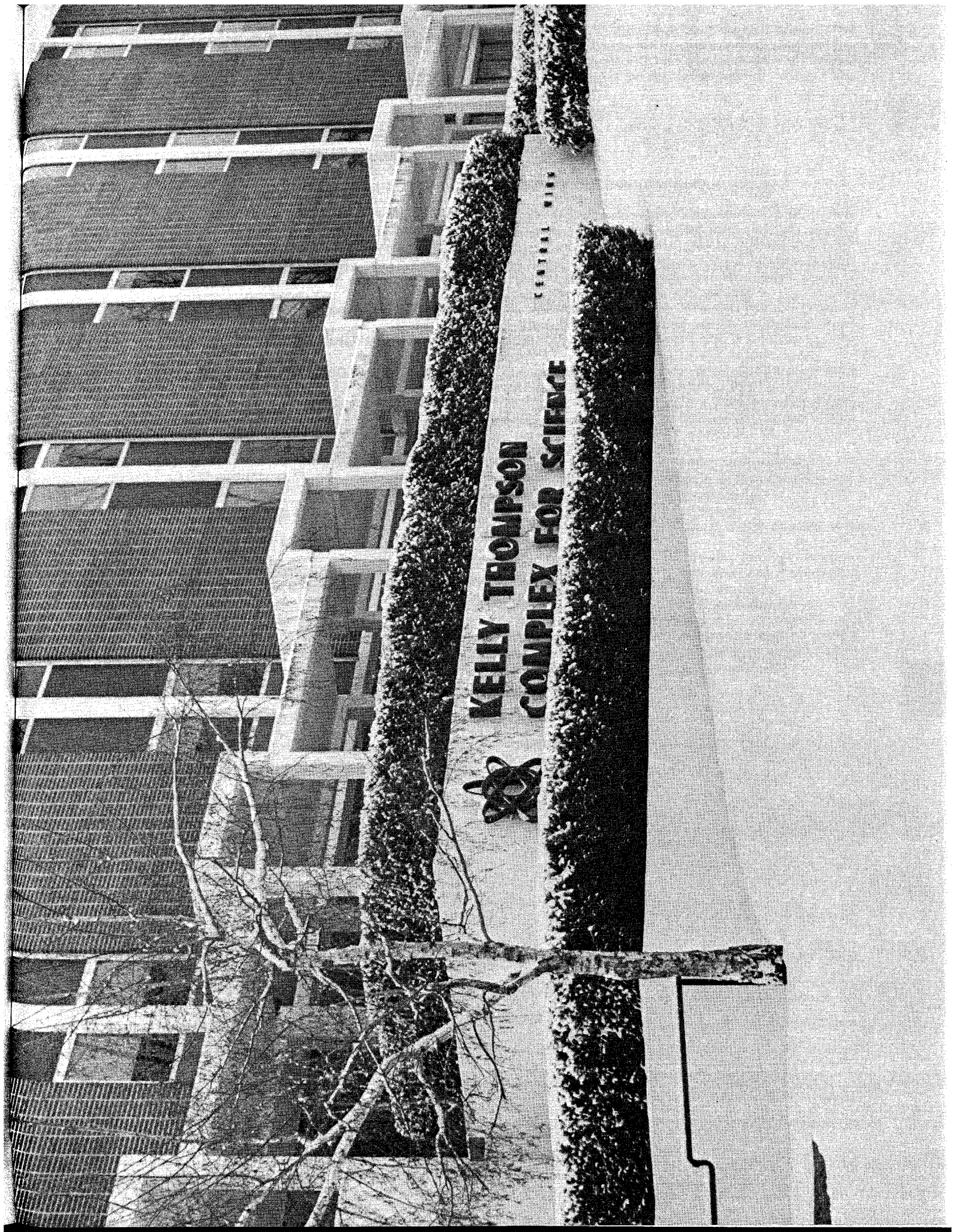
477G Materials and Methods in Library Science. 3 hours.
Prerequisites: Ed 280, Psy 220.
Laboratory experiences for the prospective librarian.



**KELLY THOMPSON
COMPLEX FOR SCIENCE**



CENTRAL WING



COLLEGE OF SCIENCE AND TECHNOLOGY

DEPARTMENTS

Agriculture

Biology

Chemistry

Engineering Technology

Geography and Geology

Mathematics and Computer Science

Physics and Astronomy

DEGREES OFFERED

Master of Public Service (Agriculture, City and Regional Planning)

Master of Science (Agriculture, Biology, Chemistry, Geography, Mathematics, Physics)

JOINT DOCTORAL (With University of Louisville)

Doctor of Philosophy
(Aquatic Biology, Chemistry of Free Radicals)

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

Agriculture
Biology
Chemistry
Geography
Mathematics
Mathematics—Science (major only)
Physics (minor only)
Science (major only)

Major Offered Under the Specialist in Education Degree

Vocational Agriculture

DEPARTMENT OF AGRICULTURE

**ENVIRONMENTAL SCIENCE AND TECHNOLOGY
BUILDING
ROOM 269 (502) 745-3151**

L.D. Brown, Head

Graduate Faculty

**Professors: L. Brown, E. Gray, W. Hourigan, R. Johnson,
G. Jones, J. McGuire, W. Normand, W. Stroube**

**Associate Professors: A. Bedel, R. Schneider,
J. Worthington**

Assistant Professor: D. Coffey

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).

Master of Science in Agriculture

Applicants for this degree should have an undergraduate major in agriculture or a related science. The research tool requirement must be fulfilled by demonstrating competency in research techniques. Both Plan A (thesis) and Plan B (non-thesis) are available. Students who expect to continue graduate work toward an advanced degree should pursue Plan A.

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.

Master of Public Service (Agriculture option)

This program is designed to meet the needs of students in, or planning to enter, agricultural or agriculturally oriented professions that involve public service (e.g., agricultural extension, conservation, governmental-agricultural programs, and agricultural representatives of banks and other financing organizations).

The applicant should have an undergraduate major in agriculture or a closely related area or be engaged in an agriculturally related profession of the public service nature.

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

- A. Organization theory courses — 3 hours
 - Govt 540 Seminar in Public Administration
 - Psy 551 Social Psychology of Organizations
 - Soc 575 Complex Organizations
 - Mgt 510 Organization Theory
- B. Socio-economic and political factor courses — 6 hours.
 - Geog 484G Planning: Theory and Application
 - Govt 511 Seminar in State and Local Government
 - Econ 550 Public Sector Economics
 - Soc 565 Studies in the Community

In addition to the core, 15 of the required 30 hours should be in agriculture or in related departments approved by the student's advisor. At least eight hours of agriculture should be in courses open only to graduate students.

Specialist in Education (See Department of Teacher Education)

Graduate Courses in Agriculture

- | | | |
|---|---|--|
| <p>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.</p> <p>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.</p> <p>546 Advanced Animal Breeding. 3 hours.
Prerequisites: Ag 446 and 428 or permission of instructor.
Application of population genetics to the</p> | <p>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.</p> <p>547 Advanced Animal Nutrition. 3 hours.
Prerequisite: Ag 448, Biol 446 or equivalent, or permission of instructor.
Individual nutrient requirements of monogastric animals, structure, metabolism and function of each nutrient class, inter-relationship of nutrient classes, deficiency and toxicity symptoms.</p> <p>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.</p> | <p>561 Agricultural Production Economics. 3 hours.
Production and cost functions, programming and decision-making principles and their application to agriculture.</p> <p>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.</p> <p>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.</p> <p>590 Experimental Design and Data Analysis. 3 hours.
Prerequisite: Ag 491 or permission of</p> |
|---|---|--|

instructor.
Statistical consideration in experimental design: Covariance, multiple regression, factorial design, incomplete block designs, etc.

- 597 Special Problems in Agriculture.** 1 to 3 hours.
Prerequisites: Permission of instructor. Supervised individual study in agriculture. May be repeated to a maximum of 9 hours.
- 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.
Prerequisites: Permission of instructor. Significant problems and scientific developments of current interest. Special topic titles assigned. May be repeated to a maximum of 10 hours with different topics.

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

- 400G Plant Physiology.** 3 hours.
Prerequisites: Biol 248, 249 and two semesters of chemistry.
The function of plant systems. Lecture, 2 hours; lab, 2 hours.
- 401G Landscape Plants I.** 3 hours.
Prerequisites: Ag 110, Biol 305-306.
Identification, recognition, and use of deciduous trees, shrubs and herbaceous plants in the landscape. Introduction to evergreen shrubs and trees, fall flowering bulbs, and perennials.
- 402G Landscape Plants II.** 3 hours.
Prerequisite: Ag 401 or permission of instructor.
Identification, recognition, and use of landscape plants. Emphasis on evergreens, annuals, perennials, and bulbs. Winter effect and flowering sequence of deciduous trees and shrubs.
- 403G Landscape Design and Construction.** 3 hours.
Prerequisite: Ag 402.
Design of residential and commercial landscapes. Techniques and materials for construction of landscape features such as decks, patios, pools, etc.
- 410G Crop Protection.** 3 hours.
Prerequisite: Chem 107 or equivalent and two plant science courses.
Control of insects, weeds, diseases, and animal pests which reduce the yields or values of Kentucky crops.
- 411G Turfgrass Management.** 3 hours.
Prerequisite: Ag 110.
Adaptation, identification, uses and fundamental principles for establishing and maintaining quality turf.
- 412G Modern Fruit Science.** 3 hours.
Prerequisite: Ag 311 or 312 or permission of instructor.
Selected problems in planting, management, production and varieties of deciduous fruits and nuts.

- 413G Principles and Practices of Plant Propagation.** 3 hours.
Prerequisite: Biol 248 or Ag 312 or permission of instructor.
Fundamental principles and basic techniques of plant propagation.
- 414G Plant Breeding.** 3 hours.
(Cross-listed with Biology 414)
Prerequisite: Biol 327 or permission of instructor.
Methods and techniques in the application of genetic principles to improve crop plants.
- 415G Greenhouse Management.** 3 hours.
Prerequisite: 6 hours of plant science.
Structures, equipment and general techniques and procedures for commercial production of ornamental and vegetable plants in the greenhouse.
- 416G Commercial Floriculture I.** 3 hours.
Prerequisite: AG 415 or permission of instructor.
Cultural requirements and propagation of plants commonly grown during the fall season in commercial greenhouses. Lecture, 2 hours; lab, 2 hours.
- 417G Commercial Floriculture II.** 3 hours.
Prerequisite: Ag 415 or permission of instructor.
Cultural requirements and propagation of plants commonly grown during the spring season in commercial greenhouses. Lecture, 2 hours; lab, 2 hours.
- 418G Landscaping for Modern Living.** 3 hours.
Prerequisite: Ag 312 or permission of instructor.
Blending of house and lawn, building materials, and plant selection to create attractive surroundings for everyday living.
- 419G Vegetable Production.** 3 hours.
Prerequisites: Ag 110, 250, and Biol 148.
Production and utilization of vegetable crops with emphasis on environmental factors influencing growth and handling of vegetables.
- 421G Forage Crops.** 3 hours.
Prerequisite: Ag 110, 250, and Biol 148.
Distribution, improvement, establishment, production and storage of forage crops, soil-plant-animal complex as relates to the morphology, physiology and utilization of forage.
- 422G Field Crops.** 3 hours.
Prerequisite: Ag 110, 250, and Biol 148 or permission of instructor.
Distribution, improvement, morphology, culture, harvesting, and utilization of field crops.
- 428G Population Genetics.** 3 hours.
(Cross-listed with Biology 428)
Prerequisite: Biol 327 or equivalent.
Application of statistical principles to biological population in relation to give frequency, zygotic frequency, mating systems and the effects of selection, mutation and migration on equilibrium population.
- 430G Dairy Technology.** 3 hours.
Prerequisite: Ag 140.
Dairy cattle in modern agriculture. Nutrition, breeding and management of dairy cattle.
- 438G Dairy Microbiology.** 3 hours.
Prerequisite: Biol 207 or equivalent, or permission of instructor.
Microbiological principles and their

application to production and processing of milk and milk products, identification, and control of microorganisms in dairy products.

- 443G Physiology of Reproduction in Domestic Animals.** 3 hours.
Prerequisite: Ag 243 or Biol 330 or permission of instructor.
Physiology and endocrinology of reproductive systems; anatomical, physiological, and biochemical basis of reproduction; artificial breeding, synchronized estrus and related topics.
- 446G Animal Breeding.** 3 hours.
Prerequisites: Ag 140 and Biol 148.
Application of genetic and statistical principles to breeding and improvement of farm animals; the role of selection in changing populations.
- 448G Principles of Animal Nutrition.** 3 hours.
Prerequisite: Ag 345.
Principles of nutrition basic to animal feeding, chemical and physiological aspects of nutrition, techniques in nutrition research.
- 449G Laboratory Methods and Techniques in Animal Nutrition.** 3 hours.
Prerequisites: Ag 448, Chem 122 or equivalent, or permission of instructor.
Laboratory methods for determining major minerals and vitamins in feeds, proximate analysis of feeds, products of fermentation, feed residues and contamination. Lecture, 1 hour, lab 4 hours.
- 450G Soil Chemistry.** 3 hours.
Prerequisites: Ag 250, Chem 107 or 122, or permission of instructor.
Analytical techniques in soil chemistry and soil fertility studies and nutrient determination; colloidal systems; chemical properties related to plant nutrition.
- 451G Soil Management.** 3 hours.
Evaluation of characteristics which determine the productive potential of soils and use of this knowledge and the prevailing climate to maximize production or net income.
- 452G Soil Microbiology.** 4 hours.
Prerequisites: Ag 250 and Biol 207, or permission of instructor.
Soil microbial populations and systems and their influence on plant nutrition. Soil organic matter, its decomposition and associated microorganisms; oxidation-reduction process; nitrogen fixation.
- 453G Soil Formation, Classification and Mapping.** 3 hours.
Prerequisite: Ag 250.
Soil origin; methods of soil survey; classification schemes; profile description, mapping and interpretation information, with emphasis on Kentucky soils.
- 454G Land-Use and Conservation.** 3 hours.
Prerequisite: Ag 250 or permission of instructor.
Economic utilization of land for agricultural recreation and public purposes; interpretation and application of soil conservation; public and industrial use; practice in designing land-use maps.
- 455G Soil Physics.** 3 hours.
Prerequisites: Ag 250, Physics 201 and 207, or permission of instructor.
Relation of physical properties of soil to plant growth, particle-size distribution, soil structure, moisture, and temperature.

- 460G Agricultural Policy.** 3 hours.
Prerequisite: Ag 260.
The place of agriculture in the national economy; objectives of agricultural policy; appraisal and proposed agricultural programs; legislation for economic action.
- 461G Advanced Farm Management.** 3 hours.
Prerequisite: Ag 361 or permission of instructor.
Identification, analysis, and solution of problems of farm organization and operation. Case studies and field trips to situation farms in South Central Kentucky. Lecture, 2 hours; lab, 2 hours.
- 463G Agricultural Finance.** 3 hours.
Prerequisite: Ag 361 or permission of instructor.
Farm finance problems including capital requirements, investment decisions, budgeting techniques, etc. Lending agencies and alternative means of acquiring capital.
- 470G Agricultural Materials Handling.** 3 hours.
Prerequisite: Ag 374 or permission of instructor.
Principles of operation. Functional analysis and design of agricultural handling systems. Includes conveyance, drying, sizing, mixing and sorting

machines for handling of farm crops and animals.

- 471G Farm Machinery.** 3 hours.
Prerequisite: Ag 270 or permission of instructor.
Design, principles, operation, selection and management of agricultural tillage and harvesting equipment.
- 475G Selected Topics in Agriculture.** 1 to 3 hours.
Prerequisite: Permission of instructor.
Special topics are presented to acquaint advanced students with the more significant problems and scientific developments of current interest in agriculture. Appropriate special topic titles are assigned. Lecture and assignments are variable with credit. The course may be repeated with change in content.
- 478G Geography of Agriculture.** 3 hours.
Prerequisite: Geog 250 or Ag 260, or permission of instructor.
Regional patterns of world agricultural production. Ecological and economic factors and cultural preferences as related to the spatial patterns of crops and agricultural types.
- 482G Development of Agricultural Resources for Rural Recreation.** 3 hours.
Developing facilities for recreational

enterprises. Topics include enterprise selection, program planning, site selection, financing, and construction.

- 486G Agriculture Sales and Service.** 3 hours.
Exploration, investigation, and application of principles and concepts of sales and service applied to agriculture.
- 487G Methods in Teaching Vocational Agriculture.** 3 hours.
Course organization, methods, farming programs, employment training, and Future Farmers of America activities.
- 488G Young Farmer and Adult Education in Agriculture.** 4 hours.
Organization and program planning for classes in post-high school vocational agriculture and technical programs for young and adult farmers.
- 491G Data Analysis and Interpretation.** 3 hours.
Prerequisite: Math 100 or permission of instructor.
Statistical models and use of samples, variation, statistical measures, distributions, tests of significance, analysis of variance, regression, correlation and chi square as related to interpretation and use of scientific data.

DEPARTMENT OF BIOLOGY

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

Jeff W. Jenkins, Head

Graduate Faculty

**Professors: D. Bailey, T. Coohill, G. Dillard, L. Elliott,
R. Hoyt, J. Jenkins, K. Nicely, R. Prins, H. Puckett,
H. Shadowen, F. Toman, J. Winstead**

**Associate Professors: S. Ford, L. Gleason, E. Hoffman,
M. Houston, J. Skean, A. Yungbluth**

Assistant Professors: R. Brown, B. Ferrell

Degrees Offered: Master of Science in Biology, Master of Arts in Education (Biology major or minor), Doctor of Philosophy (in cooperation with the University of Louisville) in Aquatic Biology.

Admission requires the equivalent of an undergraduate major in biology including two laboratory courses each in inorganic chemistry and physics and one course in organic chemistry. Exceptions are made in favor of superior students whose undergraduate degrees are in allied subject matter fields.

A cooperative graduate program leading to the Doctor of Philosophy with specialization in Aquatic Biology is

administered by the departments of biology of Western Kentucky University and the University of Louisville. Interested students may obtain information about the program from Dr. J. Winstead.

Master of Science in Biology

Both Plan A (Thesis) and Plan B (non-thesis) are available. Students needing specialization within biology and desiring a related research experience should follow Plan A. The thesis is based upon original research conducted under the direction of a departmental graduate faculty member. The Plan B program is designed for students who desire additional training for biological or biologically-related professions. Candidates following Plan B are required to take Biology 516 — Investigations in Biology (2 or 3 hours) as an introduction to research.

The research tool, under both plans, may be met by demonstrating (1) a reading knowledge of a foreign language or (2) competency in statistical methodology, computer programming, or electron microscopy.

Master of Arts in Education (Biology major or minor)

This program is designed for the preparation and strengthening of secondary school science teachers. The major requires 21 hours of coursework in biology, and the minor requires 12 to 15 hours in biology. In both cases, the remainder of the required 30 hours is taken in professional education.

Students who desire a breadth of coursework in the sciences may major in the Science Area of Concentration under the MA in Education program. Students following this option must have all biology courses approved by the appropriate advisor in the Department of Biology.

TECH AQUA BIOLOGICAL STATION

Western Kentucky University is a charter member of the Tech Aqua Development Consortium which operates a biological station on Center Hill Lake near Cookeville,

Tennessee. A variety of field biology courses is offered during two five-week sessions each summer. Students interested in the Tech Aqua Program should contact Dr. H. Shadowen of the Department of Biology for additional information.

Graduate Courses in Biology

501 Biological Perspectives I.

3 hours.

Prerequisite: Science area major or minor.

Designed for in-service teachers. Advances in the biological sciences; practical applications of biological principles. Includes the chemical and cellular basis of life, metabolism, reproduction, and development. Not acceptable to MS in biology. Lecture, 2 hours; lab, 2 hours. (Summers on demand).

502 Biological Perspectives II. 3 hours.

Prerequisite: Science area major or minor; Biol 501 desirable.

Designed for in-service teachers. Advances in the biological sciences; practical applications of biological principles. Includes the origin and early evolution of life, viruses and monera, the plant kingdom, the animal kingdom, biological evolution, and ecology. Not applicable to MS in biology. Lecture, 2 hours; lab, 2 hours. (Summers on demand).

503 Ultrastructure and Cellular Mechanisms. 3 hours.

Prerequisite: Biol 411 or equivalent.

Review of research findings that have led to present ideas of the relationship between cell structure and function. Lecture. (Spring of even-numbered years).

505 Biogeography. 3 hours.

See Department of Geography and Geology.

511 Limnology. 4 hours.

Physical, chemical, and biological aspects of bodies of freshwaters with emphasis on water as a biological environment. Lecture, 2 hours; lab, 4 hours. (Fall of even-numbered years)

515 Plant Ecology. 4 hours.

Prerequisites: Biol 248 and permission of instructor.

Ecological concepts and their application to experimental approaches for studying the interaction of plants with their environment. Lecture, 2 hours; lab, 4 hours. (Spring of even-numbered years)

516 Investigations in Biology.

1 to 3 hours.

Prerequisite: Permission of research project director. Research project completed under faculty supervision. Not applicable to MS Plan A. (Every semester and Summer)

518 Aquatic Mycology. 4 hours.

Prerequisites: Biol 158, 159 or equivalent microbiology.

Morphology and systematics of representative aquatic fungi found in central Kentucky. Lecture, 2 hours; lab, 4 hours (On demand)

527 Advanced Genetics. 4 hours.

Prerequisite: Biol 327 or permission of

instructor.

Advanced Mendelian principles and post-Mendelian genetics with emphasis on recently developed areas of research. Lecture 2 hours; lab, 4 hours. (Spring of odd-numbered years, summer of even-numbered years)

528 Microbial and Molecular Genetics.

3 hours.

Prerequisite: Biol 446, 411 or equivalent or permission of instructor.

Genetics at the molecular level using microorganisms as research tool.

530 Animal Behavior. 4 hours.

Prerequisite: Biol 318, 319 or equivalent animal science and permission of instructor.

Development, physiology, ecology, and evolution of behavioral patterns in invertebrates and vertebrates.

540 Algal Systematics and Ecology.

4 hours.

Prerequisite: Biol 419 or permission of instructor.

Systematics and ecology of freshwater algae with emphasis on the composition, periodicity, and succession of regional phytoplankton and periphyton communities. Lecture, 2 hours; lab, 4 hours. (Fall of even-numbered years)

550 Aquatic Invertebrates. 3 hours.

Prerequisite: Biol 408 or permission of instructor.

Taxonomy and ecology of invertebrates in lakes, ponds, and streams. Lecture, 1 hour; lab, 4 hours. (Fall of odd-numbered years)

560 Advanced Parasitology. 4 hours.

Prerequisite: Biol 460 or permission of instructor.

The culture, determination of physiological requirements, experimental infection of hosts, and host-specificity of parasites. Lecture, 2 hours; lab, 4 hours. (Spring of odd-numbered years)

562 Intermediary Metabolism. 3 hours.

See Biochemistry.

563 Enzymology. 3 hours.

See Biochemistry.

564 Enzymology Laboratory. 1 hour.

See Biochemistry.

569 Professional Work/Career Experience in Biology. 3 hours.

Practical experience in a supervised work situation with a cooperative business, industry, or governmental agency, emphasizing application of advanced knowledge and skills in specified areas of biology.

570 Immunology. 4 hours.

The biology of the immune response; the mechanism, manipulation, and effects of this major means by which higher animals maintain their organismic integrity. Lecture, 2 hours; lab, 4 hours. (Fall of odd-numbered years)

580 Plant Biochemistry. 3 hours.

Prerequisite: Chem 314 or 342.

The occurrence, properties, function, and metabolism of organic compounds found in plants. Lecture. (Summer of odd-numbered years)

589 Internship in Biology. 3 hours.

Practical experience in a supervised work situation with a cooperative business, industry, or governmental agency, emphasizing application of advanced knowledge and skills in specified areas of biology.

591 Aquatic Biology. 4 hours.

Plant and animal communities of freshwater lotic and lentic habitats. Lecture, 2 hours; lab, 4 hours. (On demand)

592 Freshwater Ecology. 4 hours.

Principles of ecology employing the aquatic ecosystem as the area of investigation. (Summers of even-numbered years)

598 Graduate Seminar. 1 hour.

Special topics in biology. (Every fall and spring)

599 Thesis Research and Writing. 6 hours.

599c Maintaining Matriculation. 1 to 6 hours.

600 Internship in College Instruction.

1 hour.

Designed for prospective teachers of biology. Staff direction in preparing and giving lectures. Includes analyses of presentation and techniques. May be repeated.

675 Advanced Topics in Biology.

1 to 3 hours.

Selected topics in Biology. (On demand)

799 Doctoral Research. 1 to 6 hours.

799c Maintaining Matriculation. 1 to 6 hours.

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

400G Plant Physiology. 3 hours.

Prerequisites: Biol 248, 249, and two semesters of chemistry.

The functioning of plant systems. Lecture, 2 hours; lab, 2 hours. (Fall of odd-numbered years)

404G Techniques and Theory of Electron Microscopy. 3 hours.

Fundamentals of electron microscopy including basic theory, techniques for specimen preparation and photography and operation of the electron microscope. Requires independent research project involving interpretation of data obtained by using the electron microscope. Lecture, 2 hours; lab, 2 hours. (Every fall)

407G Virology. 3 hours.

Prerequisites: Biol 158 and 159, or permission of instructor.

Bacterial, animal, and plant viruses with special emphasis on the chemistry and replication of bacterial viruses. (Spring of odd-numbered years, summer of even-numbered years)

- 408G Invertebrate Zoology.** 4 hours.
Prerequisites: Biol 258, 259.
Phyla of invertebrate animals, including their taxonomy, morphology, physiology, development, and evolution. Lecture, 2 hours; lab, 4 hours. (Spring of odd-numbered years)
- 411G Cell Biology.** 3 hours.
Prerequisites: Biol 148, 149 and Organic Chemistry.
Morphological and chemical makeup of cells, physical and chemical properties of the cell and modern techniques for investigation of cellular functions. Lecture. (Every fall and spring)
- 412G Cell Biology.** 1 hour.
Pre/corequisite: 411G.
Laboratory correlated with Biol 411G. Two hours per week. (Every spring)
- 416G Systematic Botany.** 4 hours.
Prerequisite: Biol 348 or permission of instructor.
Variation, phylogeny, classification and identification of flowering plants. (Fall of odd-numbered years)
- 418G Mycology.** 4 hours.
Pre/corequisites: A comparative morphological and physiological study of fungi. Lecture, 3 hours; lab, 2 hours. (Fall of even-numbered years)
- 419G Freshwater Algae.** 3 hours.
Morphology and systematics of freshwater algae. Emphasis on regional flora. Lecture, 1 hour; lab, 4 hours. (Spring of even-numbered years)
- 428G Population Genetics.** 3 hours.
See Department of Agriculture.
- 431G Radiation Biophysics.** 4 hours.
See Department of Physics and Astronomy.
- 432G Advanced Animal Physiology.** 3 hours.
Prerequisites: Biol 330, 331.
Selected systems and topics in physiology with emphasis on the biophysical

approach. Lecture. (Spring of even-numbered years)

- 436G Biophysics Seminar.** 1 hour.
See Department of Physics and Astronomy.
- 446G Biochemistry.** 3 hours.
See Biochemistry.
- 447G Biochemistry Laboratory.** 2 hours.
See Biochemistry.
- 456G Ichthyology.** 4 hours.
Prerequisites: Biol 258, 259, and permission of instructor.
Fishes of the world, their physiology, structure, behavior, and ecology. Emphasis on the collection and identification of freshwater species of Kentucky. Lecture, 2 hours; lab, 4 hours. (Fall of odd-numbered years)
- 458G Fishery Biology.** 3 hours.
Biological aspects of population of freshwater fishes. Emphasizes reproduction and development, food and feeding habits, pollution effects, etc. Lecture, 2 hours; lab, 2 hours. (Spring of odd-numbered years)
- 459G Mammalogy.** 3 hours.
Prerequisites: Biol 258, 259.
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)
- 460G Parasitology.** 4 hours.
Prerequisites: Biol 258, 259.
The morphology, physiology, life histories, control and economic significance of representative species. Lecture, 2 hours; lab, 4 hours (Fall of even-numbered years)
- 462G Bioinorganic Chemistry.** 3 hours.
See Biochemistry.
- 464G Endocrinology.** 3 hours.
Prerequisites: Biol 148 and either 195 or 258. Biol 330 recommended.
Structure and function of the endocrine glands and their role in physiological communication and regulation. (Fall of odd-numbered years)

465G Endocrinology. 1 hour.
Corequisite: Biol 464G.
Laboratory correlated with Biology 464G. Two hours per week. (On demand)

467G Biochemistry II. 3 hours.
See Biochemistry.

470G Pathogenic Microbiology. 4 hours.
Prerequisites: Biol 309, 310, and permission of instructor.
Organisms causing disease with emphasis on bacteria. Includes pathogenic bacteria, viruses, rickettsiae, fungi and protozoa. Lecture, 2 hours; lab, 4 hours. (Every fall)

472G Food Microbiology. 4 hours.
Prerequisites: Biol 158 and 159 or 207 and 208.
Preservation, fermentation and spoilage of foods including a study of food and milk microbiology. Lecture, 2 hours; lab, 4 hours. (Spring of even-numbered years)

475G Selected Topics in Biology. 1 to 3 hours.
Significant problems and developments of current interest in biology. (Every semester and summer)

477G Morphology of Non-Vascular Plants. 4 hours.
Prerequisites: Biol 158, 159 and 248, 249.
Structure, development and phylogenetic relationships of the algae, fungi and bryophytes. Lecture, 3 hours; lab, 2 hours. (On demand)

478G Morphology of Vascular Plants. 4 hours.
Prerequisites: Biol 248 and 249 or 477.
Structure, development and phylogenetic relationships of the primitive vascular plants, gymnosperms and angiosperms. Lecture, 2 hours; lab, 4 hours. (Fall of even-numbered years)

485G Field Biology. 3 hours.
Two-week camping field experience on a specific biological topic, preceded and followed by introductory and evaluative sessions. (Summer sessions only)

491G Data Analysis and Interpretation. 3 hours.
See Department of Agriculture.

BIOCHEMISTRY

THOMPSON COMPLEX - CENTRAL WING
(502) 745-3457

Graduate Faculty

Professors: R. Farina, F. Toman

Associate Professors: J. Craig, D. Hartman, M. Houston

Biochemistry is the study of the most intricate of all chemical systems, living matter, and attempts to determine the chemical nature and chemical reactions in protoplasm — the basic material of living matter. Training in biochemistry provides many opportunities in teaching, research, and public service and provides excellent preparation for many other areas of basic and applied sciences.

Biochemistry courses are administered jointly by the Departments of Biology and Chemistry. The student should enroll either in the Department of Biology or the Department of Chemistry, depending upon the major emphasis. Enrollment requires the completion of proper prerequisites in biology and chemistry.

For further information, contact Dr. Toman in the Department of Biology or Dr. Hartman in the Department of Chemistry.

Graduate Courses in Biochemistry

- 562 Intermediary Metabolism.** 3 hours.
Prerequisite: Biochem 446.
The metabolic pathways of carbohydrates, lipids, and proteins. Lecture. (Fall)
- 563 Enzymology.** 3 hours.
Prerequisites: Biochem 446 and 447.
Includes kinetics and mechanisms for reactions of biological significance. Lecture. (On demand)
- 564 Enzymology Laboratory.** 1 hour.
Corequisite or prerequisite: Biochem 563.
The techniques of enzyme isolation and purification coupled with kinetic studies. Three hours per week. (On demand)

- 580 Plant Biochemistry.** 3 hours.
Prerequisite: Chem 314 or 340.
The occurrence, properties, function, and metabolism of many organic compounds found in plants. Lecture. (Summer of odd-numbered years)

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

- 400G Plant Physiology.** 3 hours.
See Department of Biology.
- 411G Cell Biology.** 3 hours.
See Department of Biology.
- 412G Cell Biology Laboratory.** 1 hour.
See Department of Biology.
- 446G Biochemistry.** 3 hours.
Prerequisite: Chem 314 or 340.
Biochemical compounds and their role in metabolism. Lecture. (Fall, spring)

- 447G Biochemistry Laboratory.** 2 hours.
Corequisite or prerequisite: Biochem 446.
Selected experiments which illustrate biochemical principles. Six hours per week. (Spring)

- 462G Bioinorganic Chemistry.** 3 hours.
Prerequisite: Chem 314 or 340.
The coordinating properties and reactivity of metal ions in living organisms. Lecture. (Fall)

- 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)

DEPARTMENT OF CHEMISTRY

**THOMPSON COMPLEX — CENTRAL WING
ROOM 444 (502) 745-3547**

Laurence J. Boucher, Head

Graduate Faculty

**Professors: R. Farina, N. Holy, J. Reasoner, C. Wilkins,
G. Wilson**

**Associate Professors: J. Craig, D. Hartman, C. Henrickson,
N. Hunter, E. Pearson, J. Riley, L. Shank**

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 Advanced Test in Chemistry and the Graduate Record Examination Aptitude 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 (Aptitude Test), Graduate Record Exam (Advanced Test in Chemistry), and the Test of English as a Foreign Language (TOEFL) as a part of their applications for admission to graduate studies in chemistry.

The program may be planned to emphasize one of five intradisciplinary areas: analytical, coal, inorganic, organic, physical, or biochemistry.

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

Chem 435G — Analytical Chemistry
Chem 580 — Chemical Skills
Chem 550 — Advanced Physical Chemistry
Chem 581 — Spectroscopy
Chem 598 — Seminar
Chem 599 — Thesis Research and Writing

Two courses from the following:

Chem 420G, Chem 540, Chem 446G

Two courses from the following:

Chem 446G, 462G, 521, 531, 541, 551, 562

Course requirements for coal chemistry option are as follows:

Chem 590 — Coal Chemistry
Chem 540 — Advanced Organic Chemistry
Chem 435G — Analytical Chemistry
Chem 550 — Advanced Physical Chemistry
Chem 420G — Advanced Inorganic Chemistry
Chem 591 — Coal Chemistry Laboratory
Chem 581 — Spectroscopy
Geol 511 — The Dynamic Earth
Chem 599 — Thesis Writing and Research

Students accepted to the cooperative program will complete Chem 596 and 597 through off-campus research for one summer and one academic year.

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; with prior approval these courses may be counted for credit toward the MA in Education degree.

Students desiring a breadth of coursework in the sciences may major in the Science Area of Concentration. The chemistry courses taken under this option must be approved by the advisor in the science area and by the advisor in secondary education.

Doctor of Philosophy

A cooperative graduate program leading to the Ph.D. with specialization in chemistry of free radicals and spectroscopy is administered by the Departments of Chemistry of Western Kentucky University and the University of Louisville.

Graduate Courses in Chemistry

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| <p>500 Fundamentals of Chemistry. 3 hours.
Prerequisite: Undergraduate minor in chemistry.
Fundamental principles, theories, and laws of chemistry. (Not applicable to the MS degree)</p> <p>502 Fundamentals of Modern Chemical Analysis. 3 hours.
Prerequisite: Undergraduate minor in chemistry.
Modern methods of chemical analysis including an introduction to instrumental analysis. (Not applicable to the MS degree)</p> <p>503 Fundamentals of Modern Chemical Analysis Laboratory. 1 hour.
Corequisite: Chem 502.
Includes experiments using the instruments and techniques discussed in the lecture.</p> <p>516 Investigations in Chemistry. 1 to 3 hours.
Review of chemical literature on topics of individual interest. Includes reports and proposals for further research. (Not applicable to the MS degree)</p> <p>520 Advanced Inorganic Chemistry I. 3 hours.
Prerequisites: Chem 452 and 420 or equivalent.
Various aspects of coordination chemistry.</p> <p>521 Advanced Inorganic Chemistry II. 3 hours.
Prerequisite: Chem 520 or permission of instructor.
Current theories of inorganic reaction mechanisms.</p> <p>531 Advanced Analytical Chemistry. 3 hours.
Prerequisite: Chem 435 or permission of instructor.
Survey of selected topics in modern instrumental methods of chemical analysis. Includes instrumental techniques not covered in Chem 435.</p> <p>540 Organic Reactions. 3 hours.
Prerequisite: Permission of instructor.</p> | <p>Modern synthetic methods used in organic chemistry.</p> <p>541 Advanced Organic Chemistry II. 3 hours.
Prerequisites: Org Chem 342 and Phys Chem 452.
Modern physical-organic chemistry including bonding, stereochemistry, reaction mechanisms, concerted reactions, photochemistry, and free-radical reactions.</p> <p>550 Advanced Physical Chemistry I. 3 hours.
Prerequisites: Chem 452 and Math 227 or equivalents.
Covers thermodynamics, kinetics and molecular structure in preparation for graduate study or research.</p> <p>551 Advanced Physical Chemistry II. 3 hours.
Prerequisite: Chem 550 or equivalent.
Continuation of basic physical chemistry concepts. Further study in the areas of thermodynamics, kinetics and molecular structure at the graduate research level.</p> <p>562 Intermediary Metabolism. 3 hours.
See Biochemistry.</p> <p>569 Internship in Chemistry I. 3 hours.
Practical experience in a supervised work situation with a cooperating business, industry, or governmental agency. Emphasizes application of knowledge and skills in chemistry.</p> <p>570 Lecture Demonstration Techniques. 3 hours.
Prerequisite: Chem 452 or equivalent.
The design and operation of meaningful lecture demonstrations in chemistry. (Not applicable to the MS degree)</p> <p>580 Chemical Skills. 3 hours.
Skills in the use of the library, glass working, and the laboratory.</p> <p>581 Spectroscopy. 3 hours.
Prerequisites: Chem 342 and 452 or 550.
Application of nuclear magnetic resonance, ultraviolet, infrared and mass spectrometry to solving chemical structures.</p> <p>589 Internship in Chemistry II. 3 hours.
Practical experience in a supervised</p> | <p>work situation with a cooperating business, industry, or governmental agency. Emphasizes application of knowledge and skills in chemistry.</p> <p>590 Coal Chemistry. 3 hours.
Prerequisites: Org Chem 342 and Phys Chem 452 or 412.
The chemistry of coal-derived products.</p> <p>591 Coal Chemistry Laboratory. 3 hours.
Prerequisite: Chem 330 or equivalent.
Techniques of classical coal analysis, as specified by the American Society for Testing and Materials (ASTM). Also covers recent developments in methods and instrumentation used in coal analysis.</p> <p>596 Cooperative Research I. 11 hours.
Prerequisite: Student must have completed one academic year of coursework for the MS-Coal Chemistry option.
Research at a cooperating laboratory leading to a thesis in coal chemistry.</p> <p>597 Cooperative Research II. 11 hours.
Prerequisite: Student must have completed one academic year of the MS-Coal Chemistry option.
Research at a cooperating laboratory leading to a thesis in coal chemistry.</p> <p>598 Graduate Seminar. ½ hour.</p> <p>599 Thesis Research and Writing. 6 hours.</p> <p>599c Maintaining Matriculation. 1 to 6 hours.</p> <p>799 Doctoral Research in Chemistry. 1 to 6 hours.</p> <p>799c Maintaining Matriculation. 1 to 6 hours.</p> |
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The following 400-level courses may be taken for graduate credit.

- 412G Introduction to Physical Chemistry.** 4 hours.
Prerequisites: Chem 122-123 and Math 125.
Chemical principles involved in thermodynamics, kinetics, equilibrium, etc. Specifically for secondary education

majors and those students not qualifying for the Chemistry 350-352 sequence.

413G Introductory Physical Laboratory.

1 hour.

Prerequisites: Chem 230, Math 125.

Corequisite: Chem 412.

420G Inorganic Chemistry. 3 hours.

Prerequisites or corequisites: Chem 352-353.

Atomic and molecular structure, bonding theory, ionic substances, electron deficient compounds, acid-base theory and coordination chemistry.

432G Modern Methods of Chemical Analysis. 3 hours.

Methods and instrumentation used in modern chemical analysis, with emphasis on application rather than theory. (Not applicable to the MS degree)

435G Analytical Chemistry. 4 hours.

Prerequisites: Chem 452-453.

Modern instrumental methods of analysis including spectro photometric, electroanalytical and chromatographic techniques.

446G Biochemistry. 3 hours.

See Biochemistry.

447G Biochemistry Laboratory. 2 hours.

See Biochemistry.

450G Physical Chemistry I. 3 hours.

(Not applicable to MS degree)

451G Physical Chemistry Laboratory. 1 hour.

452G Physical Chemistry II. 3 hours.

(Not applicable to MS degree)

453G Physical Chemistry Laboratory II. 1 hour.

462G Bioinorganic Chemistry. 3 hours.

See Biochemistry.

467G Biochemistry II. 3 hours.

See Biochemistry.

470G Chemistry for the "Middle School."

4 hours.

Prerequisite: Chem 108 or 123 or permission of instructor.

Chemical theories and principles in the middle school science curricula. (Elective credit only)

475G Advanced Topics in Chemistry.

1 to 3 hours.

Topics in analytical, biological, inorganic, organic, physical and polymer chemistry. May be repeated with a different topic.

476G Advanced Laboratory Investigations in Chemistry. 2 hours.

Work in analytical, biological, inorganic, organic or physical chemistry. May be repeated with a different topic. (Not acceptable for MS degree)

ENGINEERING TECHNOLOGY

SCIENCE AND TECHNOLOGY HALL ROOM 200a (502) 745-2641

Graduate Faculty

Professor: D. Rowe

Assistant Professor: J. Russell

Engineering Technology courses may serve as a part of both the Science Area major and the Health minor for the Master of Arts in Education degree and may be used in other graduate degree programs when considered appropriate by the student's advisory committee.

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

405G Atmospheric Pollution: Sources, Effects, Monitoring and Control. 3 hours.

Includes sources; effects; monitoring; legal aspects of air pollution; and air pollution control. Lecture, 2 hours; lab, 2 hours.

406G Water Pollution for Science Teachers. 3 hours.

The importance of water in the environment. Topics include water resources, water pollutants; origins, characteristics and effects, water pollution legislation and standards, and water and waste water treatment. Lecture 2 hours; lab 2 hours.

410G Water Supply. 3 hours.

Includes the planning, operation and design of water supply systems. Emphasizes testing procedures for carrying out water quality surveys and water treatment plant operation. Lecture.

415G Water Supply Laboratory. 1 hour. Corequisite: ET 410G.

Correlated with ET 410G. Three hours per week.

420G Waster Water Treatment. 3 hours.

Theory, design and operation of waste water collection and disposal systems. Chemical and biological characteristics of waste water. Lecture.

425G Waste Water Treatment Laboratory.

1 hour.

Corequisite: ET 420G.

Correlated with ET 420G. Three hours per week.

430G Radiological Health. 3 hours.

Principles of radiation protection. Topics include nature and origins of radiation, and standards and methods for protection. Lecture.

435G Radiological Health Lab. 1 hour.

Lab correlated with ET 430G. Three hours per week.

440G Industrial Hygiene. 3 hours.

Principles of recognition, evaluation, and control of stresses in the industrial environment. Topics include legislation and standards as well as physical, chemical, biological and ergonomic stresses. Lecture.

460G Environmental Impact Statements.

3 hours.

Preparation of assessments of environmental impacts as outlined by the National Environmental Policy Act. Resource information provided.

470G Industrial Waste Treatment.

3 hours.

Prerequisite: ET 410 or ET 420 or permission of instructor.

Basic principles involved in the treatment of industrial and domestic waste waters. Includes the design of various waste water treatment processes. Lecture.

475G Selected Topics. 1 to 3 hours.

Current problems and development in engineering technology. Topics will vary.

480G Solid Waste Treatment. 3 hours.

Characteristics and extent of the solid waste problem. Emphasizes methods of disposal of solid waste including sanitary landfill, incineration, recycling and reclamation and conversion processes. Lecture.

490G Sanitation. 3 hours.

Sanitary principles involved in the processing and distribution of milk and milk products, meat shellfish and other foods. Lecture, 2 hours; lab, 3 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, W. Cockrill, J. Davis, N. Fields,
E. Hegen, W. Hoffman, J. McGregor, A. Petersen,
C. Pickard, R. Seeger, J. Taylor

Associate Professors: R. Dilamarter, M. Lowry

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

The graduate programs in geography provide a solid background for students who plan to continue advanced studies toward the Ph.D. degree, to pursue careers in junior (community) college teaching or teaching in middle and high schools, or to enter public service as city and regional planners. Graduates are prepared for a variety of other employment areas such as rangers or naturalists in national and state parks, cartographers, airphoto interpreters, and similar positions in business and industry.

Applicants for the Master of Science in Geography and the MPS Degree (City and Regional Planning option) must have (1) an overall grade point average of 2.80 or above, or (2) a grade point average of 2.80 or above on the last sixty semester hours of undergraduate work, or (3) a score of 800 or above on the Aptitude section of the Graduate Record Examination.

Master of Science in Geography

Both Plan A (thesis) and Plan B (non-thesis) are available. Plan A requires a minimum of 30 semester hours of graduate credit, including Geog 500, 502, 504, and 491G or 590. With approval from the advisory committee, a student may take a maximum of six hours outside the department. The thesis must be based upon original research directed by the advisor. Plan B requires 33 semester hours of graduate credit individually planned, with 18 hours in courses open only to graduate students.

The research tool, under both plans, must be met by demonstrating either (1) reading proficiency in a foreign

language appropriate for the major area, or (2) competency in the appropriate research techniques.

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 including Geog. 500, 502, 504, and 491G or 590. The minor requires a minimum of 12 hours. The remaining hours (within the required 30) are taken in professional education.

Master of Public Service (City and Regional Planning Option)

This interdisciplinary program consists of offerings from several departments and prepares individuals to serve in governmental positions requiring administrative training as well as knowledge of the particular areas they are to administer.

This option provides academic and practical training in city and regional planning and prepares students for employment with local, state, and federal agencies, as well as for positions within the private sector economy.

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

- A. Organization Theory Courses — 3 hours
Govt. 540 Seminar in Public Administration
Psy 551 Social Psychology of Organizations
Soc 575 Complex Organizations
Mgt 510 Organization Theory
- B. Socio-Economic and Political Factor Courses — 6 hours
*Geog 484G Planning: Theory and Application
Govt 511 Seminar in State and Local Government
Econ 550 Public Sector Economics
Soc 565 Studies in the Community

*Required for the City and Regional Planning option.

Individual programs are planned in accordance with specific needs of the student. The thesis is optional. Required courses (within the 36-hour minimum) are:

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

Graduate Courses in Geography

500 **Introduction to Geographic Research.** 3 hours.
Development of geographic research skills with emphasis on posing of research problems, documentation, organization, and presentation.

501 **Geography, Science, Civilization.** 3 hours.
Topical seminar examining current issues and trends of the discipline and related fields, recent research, and the role of science in society, technology and culture.

502 **Geographic Techniques for Field Investigations.** 3 hours.

504 **Historical and Philosophical Bases of Geography.** 3 hours.
The evolution of geography as a distinct discipline through study of the writings of outstanding scholars.

505 **Biogeography.** 3 hours.
Prerequisites: Introductory courses in geography and/or biology, and permission of instructor.
The evolutionary, geographical, eco-

logical, pedological, and edaphic factors involved in the naturalization, acclimatization, and distribution of plant and animal life.

- 510 Selected Topics in Geography.** 3 hours.
Topics will vary according to student needs.
- 521 Advanced Studies in Geomorphology.** 3 hours.
Prerequisites: Geomorphology 420, or equivalent, and 3 hours in upper-level physical geography or geology.
A review of topics in advanced geomorphology, field and laboratory procedures, and an introduction to research in landform analysis. Research in instructor-approved geomorphic topics.
- 522 Advanced Studies in Climatology.** 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.
- 524 Meteorology for Science Teachers.** 3 hours.
Basic weather course with emphasis on new developments and applications.
- 525 Advanced Political Geography.** 3 hours.
- 530 Selected Problems in Cultural Geography.** 3 hours.
Prerequisite: Geog 430 or permission of instructor.
Seminar-field experience. Covers cultural origins and dispersals, environmental perception and behavior, and resulting consequence upon the geographic landscape.
- 532 Studies in Geographic Exploration.** 3 hours.
Eighteenth, 19th and 20th century scientific exploration of the "terrae incognitae" through examination of firsthand accounts.
- 534 Historic Preservation Planning: Application.** 3 hours.
Prerequisite: Geog 434G
Field application of historic preservation method and techniques.
- 540 Advanced Regional Geography.** 3 hours.
Prerequisites: Two courses in regional geography and consent of instructor.
The regional method as a basic approach to geographic research via one or more major regional units.
- 541 Seminar in Tropical Geography.** 3 hours.
Prerequisites: Geog 210, 422, 430 and permission of instructor.
Specific problems of the man-environment relationships of the American, African, and Asian Tropics.
- 550 Advanced Studies in Economic Geography.** 3 hours.
Prerequisites: Geog 250, 478 or 479 and permission of instructor.
An examination of the major theories in economic geography.
- 560 Settlement Geography.** 3 hours.
Prerequisite: Geog 430 or consent of instructor.
Sources and philosophies of settlement studies. Investigations of selected set-

tlement patterns with emphasis on rural and rural non-farm settlement; farmstead, hamlet, village and town, and functionally related features, architectural style, and functional rationale.

- 571 Quality of Life: Environmental Problems and Ecological Solutions.** 3 hours.
Seminar approach to developing critical ecological sensitivity through analysis of past and present environmental problems, implemented and alternative solutions.
- 580 Problems in Urban Geography.** 3 hours.
- 584 Advanced Planning.** 3 hours.
Prerequisite: Geog 484.
Analysis of advanced topics and results of recent research in city and regional planning.
- 585 Advanced Studies in Population Geography.** 3 hours.
Prerequisites: Geog 485 and permission of instructor.
Seminar approach to regional and world problems in human population.
- 590 Experimental Design and Data Analysis.** 3 hours.
Prerequisite: Geog 491 or permission of instructor. (Cross-listed with Agriculture 590)
Statistical consideration in experimental design: Covariance, multiple regression, factorial design, incomplete block designs, etc.
- 595 Planning Practicum.** 3 to 6 hours.
Prerequisites: Geog 484, 584, and permission of instructor.
Supervised planning experience in a cooperating government or private agency.
- 599 Thesis Research and Writing.** 6 hours.
- 599c Maintaining Matriculation.** 1 to 6 hours.

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

- 402G Physiography of North America.** 3 hours.
Prerequisites: Geog 106 and 108 or Geology 102 or 111 and 113.
- 410G Cartography II.** 3 hours.
Prerequisite: Cartography I (215) or Maps and Diagrams (324).
History of cartography, map compilation, lettering and typography; cartographic design, map reproduction, use of color, map projections, scribing techniques.
- 415G Air Photo Interpretation.** 3 hours.
Characteristics of aerial photographs; use of air photos for analysis of the earth's physical and cultural features; air photo approach to urban and regional planning. (Spring)
- 416G Remote Sensing: Principles and Applications to Environment and Planning.** 3 hours.
Remote sensing techniques and their application in the study of man's biophysical environment through the use of infrared, thermal infrared, radar and space photography.
- 420G Geomorphology.** 4 hours.
Prerequisites: Geog 106 or 106-K and 108 or Geol 102, 111, and 113.
The origin, history and characteristics of land-forms produced by fluvial, glacial, wind and wave erosion and by mass-wasting and ground-water.
- 421G Advanced Geomorphology.** 3 hours.
Prerequisite: Geol 420.
Landform development under processes associated with running water. Principal topics are: climate and geomorphic processes; weathering; the drainage basin as a geomorphic unit; channel form; hill-slope characteristics; drainage pattern evolution, etc.
- 422G Climatology.** 4 hours.
Prerequisite: Geog 100, 105, or 121.
The elements of climate of their world distribution with emphasis on the climatic controls.
- 423G Transportation.** 3 hours.
The problems of interaction, diffusion and information transfer as they appear in a spatial context.
- 424G Weather Analysis and Forecasting.** 3 hours.
Prerequisite: Geog 100, 105, 121, or permission of instructor.
Analysis of air masses; principles of weather forecasting; drawing and interpretation of the daily weather map; and making weather forecasts.
- 425G Political Geography.** 3 hours.
Prerequisite: Geog 101 or permission of instructor.
The political system as a spatial phenomenon. Examples from local, metropolitan-regional, national and international levels.
- 426G Applied Meteorology/Climatology.** 3 hours.
Prerequisite: Geog 121 and 422 or permission of instructor.
Practical insight into the influence of meteorology and climatology on man. Problems of the physical environment caused by what man has done or will do to the weather and climate patterns of the world.
- 430G Cultural Geography.** 3 hours.
Concepts of culture and the interaction between various cultures and their environments.
- 434G Historic Preservation Planning: Principles and Practices.** 3 hours.
Historic preservation methodology and practice as related to urban, small town, and rural neighborhoods. Includes historic preservation law and impact statements.
- 452G Field Studies in Geography.** 1 to 3 hours.
- 453G Geography of the Soviet Union.** 3 hours.
- 454G Geography of Middle America.** 3 hours.
Prerequisite: Geog 101 or permission of instructor.
A regional analysis of Mexico, Central America and the West Indies.
- 455G Geography of Australia and Islands of the Western Pacific.** 3 hours.
Prerequisite: Geog 101 or permission of instructor.

- 462G Geography of South America.** 3 hours.
Prerequisite: Geog 101 or permission of instructor.
Physical and cultural bases of South America's geographic patterns with emphasis on problems of resource development.
- 464G Geography of Europe.** 3 hours.
Prerequisite: Geog 101 or permission of instructor.
- 465G Geography of Asia.** 3 hours.
Prerequisite: Geog 101 or permission of instructor.
Regional differences with emphasis on the distribution and activities of the peoples relative to the natural and economic setting and to problems of development.
- 466G Geography of Africa.** 3 hours.
Prerequisite: Geog 101 or permission of instructor.
Geographic survey, assessing the relationships of the physical and cultural patterns to actual and potential economic development.
- 467G Geography of the Middle East.** 3 hours.
Various aspects of the sequent occurrence of Southwestern Asia and surrounding regions mentioned in the Bible.
- 470G Geography of Cities.** 3 hours.
- 478G Geography of Agriculture.** 3 hours.
Prerequisite: Geog 250, Ag 260, or permission of instructor.
Regional patterns of world agricultural production.
- 479G Industrial and Commercial Geography.** 3 hours.
Prerequisite: Geog 250 or permission of instructor.
Manufacturing and commercial activities and facilities related to assembling of raw materials and distribution of products.
- 484G Planning Theory and Application.** 3 hours.
Planning theory, practice, and organizational structure.
- 485G Population and Resources.** 3 hours.
Distribution of population and population characteristics as related to world resources and cultures. Problem regions are identified.
- 491G Data Analysis and Interpretation.** 3 hours.
Prerequisite: Math 100 or permission of instructor.
Statistical models and use of samples; variation, statistical measures, distributions, tests of significance, analysis of variance, regression, correlation and chi-square as related to interpretation and use of scientific data. (Fall, spring)

The following graduate courses, specially designed for teachers of natural and earth science, are offered in Geology

- 511 The Dynamic Earth.** 3 hours.
Prerequisites: Geol 102 and 112, or one year of earth sciences teaching at secondary school level.
Topics include plate tectonics, the surface features of Earth, physical

properties of Earth and its interior, geological processes and the geological time scale, continental drift, paleomagnetism, etc.

- 524 Meteorology for Science Teachers.** 3 hours.
Cross-listed with Geog 524.

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

- 405G Paleontology.** 4 hours.
Prerequisites: Geol 112 and Biol 148-9 or permission of instructor. (Cross-listed with Biology)
Nature of the fossil record, preservation, basic factors and theories relating to the origin and development of living systems and the processes of evolution, the species concept, systematics and paleoecology.
- 411G Special Topics in Geology.** 3 hours.
- 415G Environmental Geology.** 3 hours.
Prerequisite: Geol 111-113 or 106-108 or permission of instructor.
Geologic factors as related to site selection, energy production, land use, waste disposal, planning, water resources, engineering practices, and the recognition and control of geologic hazards.
- 420G Geomorphology.** 3 hours.
Prerequisites: Geog 106 or Geol 102 or 111 and 113.
Origin, history and characteristics of land-forms produced by fluvial, glacial, wind and wave erosion, and by mass-wasting and ground-water.
- 421G Advanced Geomorphology.** 3 hours.
Prerequisite: Geol 420G.
Landform development under processes associated with running water. Principal topics are: climate and geomorphic processes; weathering; channel form, hill-slope characteristics; drainage pattern evolution, etc.

- 424G Field Geology.** 7 hours.
Prerequisites: Geol 111, 112, 113, 114, 308, and 330.
Six-weeks summer field course.

- 440G Hydrogeology.** 3 hours.
Origin, occurrence and movement of ground water; wells and aquifer evaluations; quality of ground water supplies; legal aspects.

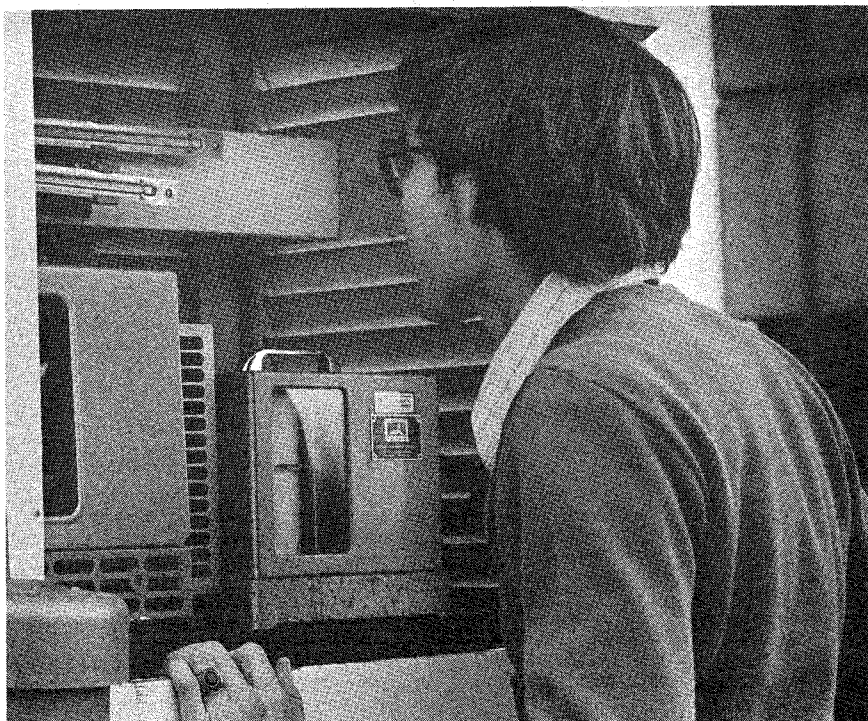
- 450G Stratigraphy-Sedimentology.** 3 hours.
Prerequisite: Geol 350, Geol 405.
Origin, characteristics, occurrence and classification of sedimentary rocks; characteristics and relationships of sedimentary strata including stratigraphic principles and practice.

- 465G Geophysics.** 3 hours.
Prerequisites: Geol 111 and one year of college physics or instructor permission.
General and exploration geophysics. Topics include the origin of the earth and solar system, the earth's interior, gravity and isostasy, seismology, upper atmosphere, continents and ocean basins, etc.

- 467G Exploration Geophysics.** 3 hours.
Fundamentals of general geophysics and practical experience in the major methods of exploration geophysics, such as gravity, magnetic, seismic, and electrical methods.

- 470G Tectonics.** 3 hours.
Prerequisite: Geol 308.
Plate Tectonics, the unifying theory of modern earth sciences. Emphasizes the contribution of previous hypotheses and research (i.e., continental drift, sea-floor spreading, paleomagnetism, magnetic reversals, geosynclines, etc.)

- 475G General Oceanography.** 3 hours.
Prerequisite: Geol 325 or 350 or permission of instructor.
Geological, chemical, physical and biological aspects of the marine environment. Topics include the topography, structure and history of the ocean basins and their margins; ocean waters and oceanic circulation; marine geochemistry; the ocean as a bio-geochemical system, etc.



**DEPARTMENT OF MATHEMATICS
AND COMPUTER SCIENCE**

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

Robert C. Bueker, Head

Graduate Faculty

**Professors: R. Bueker, C. Davis, B. Detwiler, W. Feibes,
W. Jones, M. Watson**

**Associate Professors: J. Barksdale, R. Crawford,
J. Crenshaw, P. Lowman, J. Stokes, K. Wallace, C. Wells,
R. York**

Assistant Professor: G. Powers

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 431G, 432G, 417G, 439G (unless equivalent courses were taken at the undergraduate level).
- B. One indicated two-course sequence from each of three of the following areas:
 - 1 Algebra: 417G-517
 - 2 Analysis: 432G-531, 432G-532, 450G-550
 - 3 Applied Mathematics: 435G-535, 470G-570, 529-530

Graduate Courses in Mathematics

500 Readings in Mathematics. 1-3 hours.
Prerequisite: Undergraduate major in mathematics.
Students read and present papers that have appeared in (or have been accepted by) mathematical journals. Topics covered are determined by areas of interest.

517 Topics from Algebra. 3 hours.
Prerequisite: Math 417.
Theory of rings, fields, and vector spaces. Topics include: polynomial rings; principal ideal domains; unique factorization domains; field extensions; Galois theory.

523 Topics from Geometry. 3 hours.
Prerequisite: Undergraduate geometry and permission of instructor.

Geometry of special lines and points; isometries; similarities; inversion; applications.

529 Mathematical Statistics I. 3 hours.
Prerequisite: Math 431 or 327.
Probability models; combinatorial analysis; random variables and their distributions; moments of probability distributions; moment generating functions and sampling distributions.

4 Topology-Geometry: 439G-539, 423G-523, 439G-523

5 Computer Science: 406G-510, 442G-541, 443G-543

- C. A working knowledge of a higher level programming language such as BASIC or FORTRAN (unless obtained at the undergraduate level).

A student may, upon approval of the departmental graduate committee, include in his/her program a maximum of six semester hours of coursework from a related discipline (e.g. Physics 510-550).

The research tool requirement may be fulfilled with a foreign language, a mathematics reading course or computer science. For specific details, contact a graduate student advisor in the Department of Mathematics and Computer Science.

If the candidate elects the non-thesis option, satisfactory completion of a one-hour written examination over each of the three sequences chosen to satisfy item B above is required. The eligible candidate must have completed (or be scheduled to complete by the end of the current academic term) the last course in each of the sequences selected. If the candidate elects the thesis option, then the final written examination is based on only two of the aforementioned areas. An oral thesis defense is required in lieu of the written examination in the third area.

Master of Arts in Education (Mathematics major or minor)

Since this program is designed for the public school mathematics teacher, students following it must satisfy all requirements for standard high school certification. Adequate preparation for a major in mathematics consists of an undergraduate teaching major in mathematics which includes, in addition to a calculus sequence, coursework in linear algebra and at least two of the following three areas: abstract algebra, geometry, analysis or advanced calculus. For a minor in mathematics, preparation should include at least an undergraduate teaching minor in mathematics with post-calculus coursework including linear algebra and one of the three areas.

Students majoring in mathematics must take 21 hours of mathematics including a course in each of the following areas: geometry, analysis, algebra. Upon approval of the graduate committee, 18 hours may satisfy the above requirement provided the student has previously completed Math 317, 323, and 327 (or the equivalent). A minor in mathematics must include at least 12 hours of mathematics. The remainder of the required 30 hours will be taken in professional education courses.

Neither a thesis nor a research tool is required; however, Education 500 — Research Methods is required as one of the professional education courses. An oral final examination, based on the coursework and related concepts, is required.

(See mathematics courses specifically for students pursuing the Master of Arts in Education degree)

- 530 Mathematical Statistics II.** 3 hours.
Prerequisite: Math 529.
Properties and determination of point estimation; interval estimation; testing hypothesis; multivariate normal distribution; nonparametric statistics and linear models.
- 531 Advanced Differential Equations.** 3 hours.
Prerequisites: Math 331, 431.
Power series solutions; existence and uniqueness theorems; stability and Liapunov's method; regular singular points; perturbations of periodic solutions.
- 532 Real Analysis.** 3 hours.
Prerequisite: Math 432.
Function spaces; additive set functions; outer measure; measurable functions; integration.
- 535 Advanced Applied Mathematics I.** 3 hours.
Prerequisite: Math 331, 431.
Eigenvalue and boundary value problems; orthogonal expansions in function spaces; classical polynomials; Sturm-Liouville theory; Fourier and Laplace transforms.
- 536 Advanced Applied Mathematics II.** 3 hours.
Prerequisite: Math 535.
Integral equations; calculus of variations; maximization of linear functionals; maximum gradient method.
- 539 Topology II.** 3 hours.
Prerequisite: Math 439.
Convergence; function spaces; complete spaces; homotopy; homology theory.
- 550 Complex Analysis.** 3 hours.
Prerequisites: Math 450 and 432.
Analytic continuation; conformal mapping; Riemann surfaces; univalent functions.
- 560 Functional Analysis.** 3 hours.
Prerequisite: Math 432.
Theory of abstract linear spaces. Topics include: normed vector spaces; inner product spaces; Hilbert spaces; open mapping and closed graph theorems; Banach-Steinhaus theorem; weak and weak-topologies.
- 570 Advanced Topics in Operations Research.** 3 hours.
Prerequisite: Math 432, 470 or consent of instructor.
Specific area(s) of operations research.
- 590 Special Topics in Mathematics.** 3 hours.
Prerequisite: Math 432
- 599 Thesis Research and Writing.** 6 hours.
- 599c Maintaining Matriculation.** 1 to 6 hours.

Additional 500-level Math courses acceptable for the Master of Arts in Education

- 501 Introduction to Probability and Statistics I.** 3 hours.
Prerequisite: Permission of instructor.
Combinations and permutations; basic theorems of probability; mathematical expectations; random variable and basic probability distributions; central limit theorem.

- 502 Introduction to Probability and Statistics II.** 3 hours.
Prerequisite: Math 501.
Review of linear algebra; Markov chains; decision theory; linear programming and game theory.
- 503 Introduction to Analysis.** 3 hours.
Examination of selected topics in elementary calculus including sequences, series, limits, continuity, the derivative, and the Riemann integral. Introductory material includes logic, set theory, and functions.
- 504 Computer Applications to Problems in Mathematics.** 3 hours.
Computer techniques and solutions of problems in mathematics including calculus, applied statistics, simulation, linear programming, game theory and linear algebra.

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

- 405G Numerical Analysis I.** 3 hours.
Prerequisites: Math 327, CS 240 or equivalent.
Roots of equations, linear operators, polynomial approximation, interpolation, numerical differentiation and integration, difference equations, and numerical solution of initial value problems in ordinary differential equations. Algorithmic computer solutions of problems will be required.
- 406G Numerical Analysis II.** 3 hours.
Prerequisites: Math 405 and 331.
The solution of linear systems by direct and iterative methods, matrix inversion, the calculation of eigenvalues and eigenvectors of matrices. Boundary value problems in ordinary differential equations. Algorithmic computer solution of problems will be required.
- 413G Algebra for Elementary Teachers.** 3 hours.
Prerequisite: Math 102 or 303 or equivalent.
Properties of real numbers, linear equations and inequalities, systems of equations, complex numbers, algebraic structures. For elementary education majors only.
- 415G Algebra and Number Theory.** 3 hours.
Prerequisite: Math 315 or 317
Survey of modern algebra and number theory. Includes number systems, divisibility, congruences, groups and their application to number theory.
- 417G Algebraic Systems** 3 hours.
Prerequisite: Math 317.
Theory of groups.
- 423G Geometry II.** 3 hours.
Prerequisite: Math 323.
An axiomatic development of plane hyperbolic geometry which presupposes a development of absolute geometry.
- 429G Probability and Statistics II.** 3 hours.
Prerequisite: Math 329.
Sampling distributions from normal populations; point estimations, interval estimation, theory and application of hypothesis testing; regression and correlation; analysis of variance.
- 431G Intermediate Analysis I.** 3 hours.
Prerequisite: Math 317.

Sequences; continuity; elementary topological concepts; differentiation; Riemann integral; Euclidean n -space.

- 432G Intermediate Analysis II.** 3 hours.
Prerequisite: Math 431.
Sequences of functions; series; continuity and differentiation of vector-valued functions of a vector variable; inverse and implicit function theorems.
- 435G Partial Differential Equations.** 3 hours.
Prerequisite: Math 331 and Math 327.
Equations of first and second order; elliptic, hyperbolic and parabolic equations of mathematical physics using separation of variable and Fourier series.
- 439G Topology.** 3 hours.
Prerequisite: Math 431 or permission of instructor.
Orderings; 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.
- 470G Introduction to Operations Research.** 3 hours.
Prerequisite: Math 329 or 327 or consent of instructor.
Principles and techniques including linear programming, queuing theory, inventory models, deterioration and replacement theory, sensitivity analysis and dynamic programming.
- 475G Selected Topics in Mathematics.** 1-3 hours.
Prerequisite: Permission of instructor.
Significant problems and developments of current interest.

Graduate Courses in Computer Science

- 510 Numerical Solution of Partial Differential Equations.** 3 hours.
Prerequisites: CS 406 (Math 435 recommended).
Techniques for the numerical solution of partial differential equations, boundary value problems, and eigenvalue problems; tests for stability and convergence; computer solutions of applied problems.
- 541 Mathematical Foundations of Computer Science.** 3 hours.
Prerequisites: Minimal mathematics and computer science prerequisites for the graduate program.
Mathematical topics of fundamental importance to computer science: graph theory, algebraic structures, combinatorial analysis. A prior course in abstract algebra would be advantageous.
- 543 Computer Information System Design.** 3 hours.
Prerequisite: CS 443.
Organization, design, and implementation of computer information systems; physical and logical file organization method; access techniques; alternatives in information system design and implementation; actual design and implementation of a data base system.

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

405G Numerical Analysis I. 3 hours.
Prerequisite: Math 327, CS 240, or equivalent.
Cross-listed with Math 405G.

406G Numerical Analysis II. 3 hours.
Prerequisites: CS 405 and Math 331.
Cross-listed with Math 406G.

442G Information Structures. 3 hours.
Prerequisite: CS 343 or 348.
Arrays, lists, trees, storage and file structures, sorting and searching techniques, etc. PL/1 capabilities: structures, pointers, list processing, use of macros, etc.

443G Data Base Management Systems. 3 hours.
Prerequisites: CS 242, CS 343, CS 442.
Design and implementation of data base management systems; data organization and management; survey and use of several data base management systems such as the WKU Transportation Data Base and library system.

444G Programming Languages. 3 hours.
Prerequisite: CS 442 or permission of instructor.
Survey of procedure-oriented and special-purpose languages. Emphasis on the syntactic and semantic structures present in these languages.

445G Operating Systems Principles. 3 hours.
Prerequisites: CS 340, 342, and 442.

Overview of a comprehensive operating system with emphasis on procedure libraries, storage management and protection, task scheduling, linkage editing, etc.

447G System Simulation. 3 hours.
Prerequisites: CS 241 and Math 329.
Computer simulation of theoretical systems and realtime processes. Includes abstract properties of simulations; basic algorithms for lists, list structures, and stochastic processes; general purpose simulation languages. Term project simulation program required.

475G Selected Topics in Computer Science. 1-3 hours.
Significant problems and developments in computer science.

DEPARTMENT OF PHYSICS AND ASTRONOMY

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

N. Frank Six, Head

Graduate Faculty

**Professors: W. Buckman, T. Coohill, D. Humphrey,
G. Moore, J. Parks, M. Russell, F. Six**

**Associate Professors: D. Bryant, E. Dorman, K. Hackney,
R. Hackney, M. Longmire**

**Assistant Professors: T. Bohuski, A. Fennelly,
E. Hoffman, C. Wolff**

Degrees Offered: Master of Science in Physics (Pre-doctoral option and Engineering Physics option), Master of Arts in Education (Physics minor)

Applicants are required to submit GRE Aptitude Test scores, TOEFL scores if they are foreign students, and to have an undergraduate grade point average of at least 3.0 to be admitted in good standing. Other promising students will be considered; however, they may be required to take additional undergraduate courses in areas of deficiency. Applicants should have a major in one of the physical sciences, engineering or mathematics.

The graduate program in the Department of Physics and Astronomy is flexible to the extent that a student can select up to 12 hours of related courses in biophysics, physical chemistry, geophysics, astronomy, or environmental science to prepare for a career in those fields which "bridge" two or more of the traditional disciplines. Various options are available based upon the applicant's career objectives. Each option includes required courses and electives.

Master of Science in Physics (Pre-doctoral option)

This program is designed to prepare students to continue graduate work at the Ph.D. level in physics or a closely related discipline. Applicants should have physics preparation, at the undergraduate level, extensive enough to include an intermediate course in mechanics (Stevenson or Symon), electricity and magnetism (Reitz and Milford), and modern physics (Weidner and Sells). Preparation in mathematics should include ordinary differential equations, vector analysis, and possibly functions of a complex variable.

Requirements for the MS degree (Pre-doctoral option) include 30 semester hours, consisting of 24 hours of coursework and 6 hours of thesis research (599). At least 15 hours of the required 30 must be 500/600 level, and up to 12 hours of related coursework, approved by the student's graduate committee, may be chosen in fields other than physics. The student must complete two of the following three courses: Phys 540 — Electromagnetic Theory, Phys 550 — Classical Mechanics, Phys 580 — Quantum Theory. Electives must be chosen in consultation with the student's graduate advisor to fulfill the 30 hours required. The research tool requirement may be met through (1) demonstrated competency in a modern foreign language or (2) an approved research tool course (e.g. computer programming, statistics). The final oral examination includes defense of the thesis and may include other topics. Enrollment is required in 598 (½ hour) every semester that the student is on campus pursuing the degree; accumulated credit does not apply toward the 30 hours required

Master of Science in Physics (Engineering Physics option)

This program provides additional academic training for students who intend to assume positions in industrial or governmental laboratories. Emphasis is placed on the applied nature of physics. In addition to meeting general Graduate College requirements, applicants should have a major in one of the fields of physical science or engineering.

Requirements for the MS degree (Engineering Physics option) include 30 semester hours, consisting of 24 hours of coursework and 6 hours of thesis research (599). At least

15 hours of the required 30 must be 500/600 level, and up to 12 hours of related coursework, approved by the student's graduate committee, may be chosen in fields other than physics. The student must complete the following three courses or their equivalent: Phys 440G — Electricity and Magnetism, Phys 450G — Theoretical Mechanics, Phys 480G — Quantum Theory and at least one two-course sequence from the following:

Phys 441G Optics and Phys 520 Atomic and Molecular Spectra

or

Phys 460G Solid State Physics and 660 Theory of Solids

or

Phys 470G Nuclear Physics and Phys 670 Theoretical Nuclear Physics

Electives must be chosen in consultation with the student's graduate advisor to fulfill the 30 hours required. The research tool requirement may be met through (1) demonstrated competency in a modern foreign language or (2) an approved research tool (e.g. computer programming, statistics). The final oral examination

includes defense of the thesis and may include other topics. Enrollment in Phys 598 (½ hour) is required every semester that the student is on campus pursuing the degree; accumulated credit does not apply toward the 30 hours required.

Master of Arts in Education

The Department offers three program options leading to the Master of Arts in Education; a physics minor of 12-15 hours, a science area major of 18-21 hours, and a math-science major of 18-21 hours. Each of these programs may include physics and astronomy courses which familiarize the teacher with modern instructional techniques and curricula and strengthen the academic background. In all cases, the remainder of the 30 hours will be taken in professional education.

(See physics and astronomy courses specifically for students pursuing the Master of Arts in Education degree.)

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.

599 Thesis Research and Writing. 6 hours.

599c Maintaining Matriculation. 1 to 6 hours.

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.

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 fabri-

cation of apparatus, technical photography, and statistical treatment of data.

414G Introductory Astrophysics. 4 hours.
Prerequisites: Two years of college physics and permission of the instructor.
Topics in solar system and stellar astrophysics. Includes radiation theory, solar phenomena; the fundamentals of radio astronomy, pulsars, quasars, and cosmic X-ray sources, etc.

431G Radiation Biophysics. 4 hours.
(Also, Biology 431)
Prerequisites: Phys 201-202 or Phys 231-232.
The properties of the various forms of radiation and their interactions with, and effects on, living matter. Laboratory offers training in monitoring ionizing radiations and in techniques of radioactive isotopes.

440G Electricity and Magnetism. 3 hours.
Prerequisites: Phys 350 and Math 331.
Classical electricity and magnetism with emphasis on fields, potentials, conductors, dielectrics, etc.

441G Optics. 3 hours.
Corequisite: Phys 404G. Prerequisites: One year of college physics and one year of calculus.
Geometrical and physical optics including wave propagation, refraction, dispersion, diffraction, 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 isostasy, 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 with different topics.

480G Quantum Mechanics. 3 hours.
Prerequisites: Phys 320, 350, 450.
Fundamental principles of quantum mechanics including the hydrogen and helium atoms, the harmonic oscillator, and the Schroedinger wave equation.

Courses which may be taken for graduate credit toward the Physics minor, Science Area major, and Math-Science major under the MA in Education

501 Classical Developments in Physics.
3 hours.
Physics for junior high and high school teachers covers the discovery of physical laws, the origin of forces, motion, energy, momentum, conservation principles, wave phenomena, and electromagnetics.

502 Modern Developments in Physics.
3 hours.
Physics for junior high and high school teachers. Covers atomic structure, the nucleus, elementary particles, probability and uncertainty, and special relativity. Emphasizes the impact of twentieth century discoveries on the foundations of physical law.

503 Physics Demonstrations and Laboratory Exercises. 3 hours.
Designed to acquaint the junior high and high school teacher with laboratory equipment and demonstrations for use in secondary education. Utilization of a

laboratory library containing approximately sixty experiments, in place.

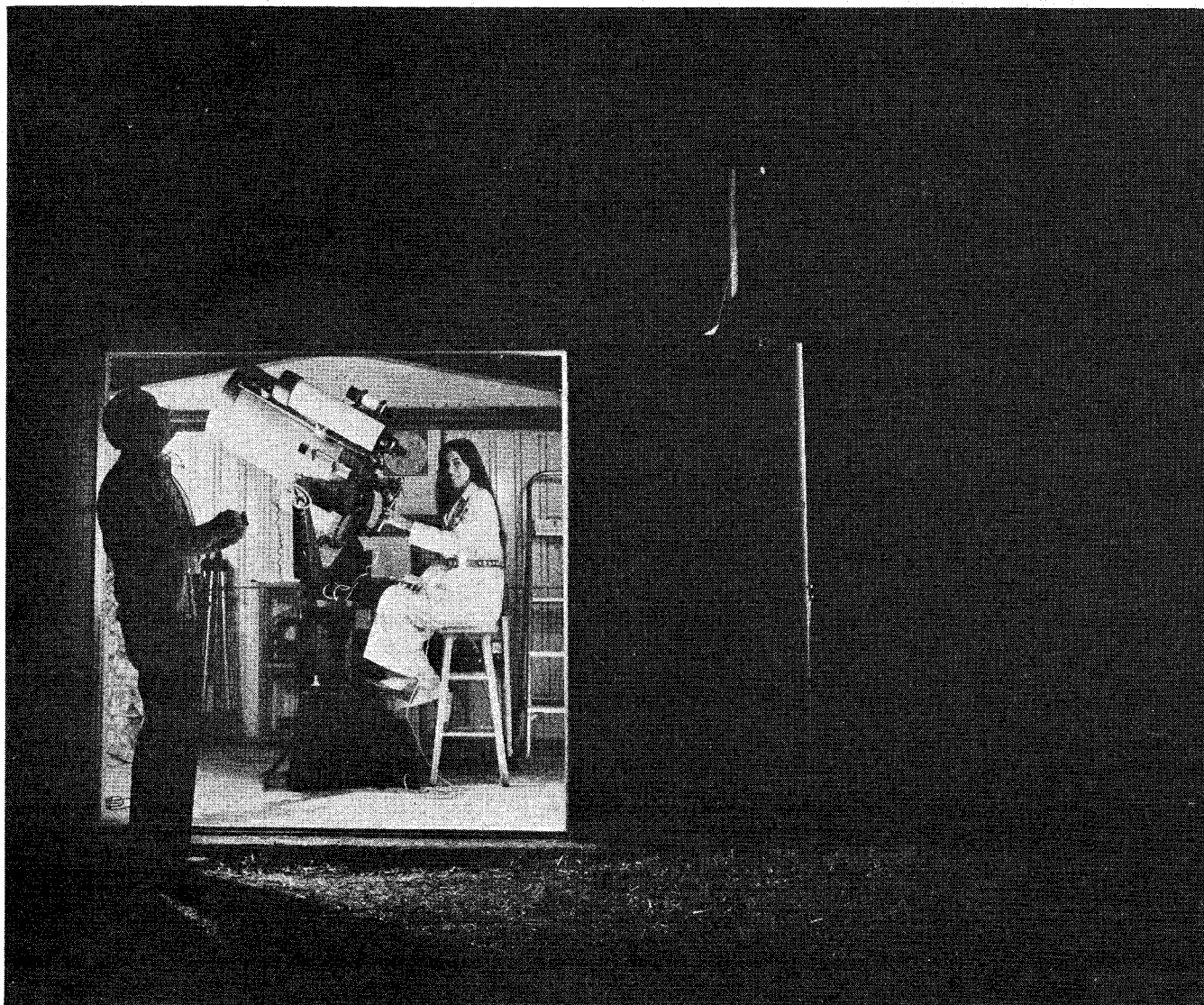
505 Investigations in Physics. 3 hours.
Topics of individual interest relating to the teaching of physics.

401G-402G Physical Science I and II.
3 hours.
The primary physical properties of matter and forms of energy. Emphasis on measurement process, symbolism, graphical analysis algebraic calculations, etc.

405G Astronomy for Teachers. 3 hours.
Selected topics in astronomy for elementary and secondary teachers. Not applicable toward physics major.

410G Physics for Elementary Teachers.
3 hours.
Covers the areas of physics relevant to the teaching of science in the elementary school. Includes laboratory experiences.

425G Modern Concepts in Physics.
3 hours.
Prerequisite: One year of college physics.
Current ideas in atomic and nuclear physics, astronomy and space physics, solid state and low temperature physics. Includes demonstrations, experiments, and field trips.



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SIMS, THOMAS K.	Ph.D., Oklahoma State University, Assistant Professor of Psychology	VOS, ARVIN G.	Ph.D., University of Toronto, Associate Professor of Philosophy
SIX, N. FRANK	Ph.D., University of Florida, Professor of Physics and Astronomy	WALLACE, KYLE	Ph.D., Vanderbilt University, Associate Professor of Mathematics and Computer Science
SKEAN, JAMES D.	Ph.D., University of Tennessee, Associate Professor of Biology	WALLACE, LYSBETH M.	M.F.A., Cranbrook Academy of Art, Professor of Art
SLOAN, JULIUS J., III	Ph.D., Vanderbilt University, Associate Professor of Government	WARD, ROBERT E.	Ph.D., State University of Iowa, Professor of English
SMITH, R. DOUGLAS	Ph.D., Southern Illinois University, Assistant Professor of Education	WASSOM, EARL E.	Ed.D., Oklahoma State University, Professor of Library Service
SMITH, ROBERT C.	Ph.D., Louisiana State University, Associate Professor of Library Science	WASSOM, JOHN C.	Ph.D., Indiana University, Professor of Economics
SPICELAND, JAMES D.	Ph.D., University of Exeter (England), Associate Professor of Philosophy and Religion	WATSON, MARTHA F.	Ph.D., University of Kentucky, Professor of Mathematics and Computer Science
STEELE, FRANK P.	Ed.D., University of Tennessee, Professor of English	WATSON, THOMAS W.	D.M.E., University of Oklahoma, Professor of Music
STEVENSON, ROBERT L.	Ph.D., Southern Illinois University, Professor of Education	WATTS, DAVID B.	Ed.D., University of Kentucky, Professor of Education
STICKLE, FRED	Ph.D., Iowa State University, Assistant Professor of Educational Leadership	WEAVER, WILLIAM C.	M.A., Ohio State University, Professor of Art
STOKES, JOSEPH F.	Ph.D., George Peabody College, Professor of Mathematics and Computer Science	WEIGEL, RICHARD D.	Ph.D., University of Delaware, Assistant Professor of History
STOMPS, WALTER	M.F.A., The School of the Art Institute of Chicago, Professor of Art	WELLS, CARROLL G.	Ph.D., Vanderbilt University, Professor of Mathematics and Computer Science
STONE, RICHARD G.	Ph.D., University of Tennessee, Associate Professor of History	WENDT, DONALD D.	Ed.D., University of Missouri, Professor of Industrial Education and Technology
STROUBE, WILLIAM H.	Ph.D., Louisiana State University, Professor of Agriculture	WESOLOWSKI, JAMES W.	Ph.D., University of Wisconsin, Associate Professor of Communication and Theatre
SURVANT, JOSEPH W.	Ph.D., University of Delaware, Associate Professor of English	WESSING, ROBERT	Ph.D., University of Illinois, Assistant Professor of Sociology and Anthropology
TANNER, PAUL	Ph.D., University of Minnesota, Assistant Professor of Health	WICKLANDER, DALE R.	Ph.D., University of Minnesota, Associate Professor of Communication and Theatre
TAYLOR, JAMES W.	Ph.D., Indiana University, Professor of Geography	WILDER, JERRY R.	Ed.D., George Peabody College, Associate Professor of Education
TAYLOR, SARA	Ed.S., George Peabody College, Assistant Professor of Education	WILKINS, CURTIS C.	Ph.D., Michigan State University, Professor of Chemistry
THACKER, JACK W., JR.	Ph.D., University of South Carolina, Professor of History	WILSON, GORDON, JR.	Ph.D., Purdue University, Professor of Chemistry
THOMASON, HUGH M.	Ph.D., Emory University, Professor of Government	WINN, LARRY	Ph.D., Indiana University, Associate Professor of Speech and Theatre
THOMPSON, FRANCIS H.	Ph.D., Texas Tech University, Professor of History	WINSTEAD, JOE E.	Ph.D., University of Texas, Professor of Biology
TOMAN, FRANK R.	Ph.D., Kansas State University, Professor of Biology	WOLFF, CLARENCE N.	M.A., Western Kentucky University, Assistant Professor of Physics and Astronomy and Secondary Education
TOMAZIC, T. NORMAN	Ph.D., Ohio State University, Associate Professor of Industrial Education and Technology	WOOD, WILLSON E.	Ph.D., George Peabody College, Professor of English
TOUPS, POLLY A.	Ph.D., Tulane University, Associate Professor of Sociology and Anthropology	WORTHINGTON, JAMES P.	Ph.D., Ohio State University, Associate Professor of Agriculture
TOWELL, DELBERT C.	Ed.D., Texas A&M University, Assistant Professor of Industrial Education and Technology	WOZNIAK, PAUL R.	Ph.D., University of Massachusetts, Professor of Sociology and Anthropology
TRAUGOTT, WILLIAM M.	Ph.D., Kansas State University, Associate Professor of Education	YORK, RANDY J.	Ph.D., University of Wyoming, Associate Professor of Mathematics and Computer Science
TROUTMAN, RICHARD L.	Ph.D., University of Kentucky, Professor of History	YUNGBLUTH, T. ALAN	Ph.D., University of Minnesota, Associate Professor of Biology
TUCK, DONALD R.	Ph.D., University of Iowa, Professor of Philosophy and Religion	ZAMKOFF, JOEL	Ed.D., University of Northern Colorado, Assistant Professor of Education
UPDIKE, THOMAS L.	Ed.D., Auburn University, Associate Professor of Education		

In 1969 the Western Kentucky University Alumni Association, in collaboration with the University, established annual faculty awards for excellence in productive teaching and for significant research and creativity. A third award for significant public service was added in 1979.

The following individuals have been selected as recipients of Faculty Awards for Distinguished Contributions to the University:

Dr. H. L. Stephens (Teaching)	1969
Dr. Mary W. Clarke (Research)	1969
Dr. Elmer Gray (Teaching)	1970
Dr. George Masannat (Research)	1970
Dr. Jack W. Thacker (Teaching)	1971
Dr. Lowell Harrison (Research)	1971
Dr. William G. Lloyd (Research)	1971
Dr. Francis Thompson (Teaching)	1972
Dr. Hart Nelsen (Research)	1972
Dr. Fuad G. Baali (Teaching)	1973
Dr. William G. Buckman (Research)	1973
Dr. John Scarborough (Teaching)	1974
Dr. Thomas Madron (Research)	1974
Dr. J. Julius Scott (Teaching)	1975
Dr. Donald R. Rowe (Research)	1975
Dr. Faye Carroll (Teaching)	1976
Dr. Thomas P. Coohill (Research)	1976
Dr. William McMahon (Teaching)	1977
Dr. Carlton Jackson (Research)	1977
Dr. Delbert Hayden (Teaching)	1978
Dr. Randy Capps (Research)	1978
Dr. Gary Dillard (Research)	1978
Dr. Kathleen Kalab (Teaching)	1979
Dr. Norman Holy (Research)	1979
Prof. Willard Cockrill (Public Service)	1979

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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 sent to Graduate College	From all colleges attended	Transcripts are needed at least 30 days prior to beginning of semester of entrance
Take GRE (except MBA applicants)	Obtain application from University Counseling Center or Graduate College	Scores required for admission
Take GMAT (MBA applicants only)	Obtain application from University Counseling Center or Graduate College	Scores required for admission
Plan program of study (Form C)	Developed in cooperation with and approved by assigned departmental advisor(s) and submitted to Graduate College for approval	Prior to enrollment in hours beyond 12, including transfers, if any
Complete research tool requirements (When required)	Check with departmental advisor and Graduate College	During the first, or at the latest the second, term of enrollment
Apply for admission to candidacy (Form D)	Graduate College or departmental advisor	After the completion of 12 hours and any research tool requirements(s) and prior to enrollment in hours beyond 21
Addition or deletion of a course listed on approved program of study	See departmental advisor	Prior to enrollment in course to be substituted
Remove any incomplete grades	See departmental office	Incomplete (or X) automatically becomes "F" after one calendar year if work is not completed
Take comprehensive exam	See departmental advisor	After admission to candidacy and after completion of 21 hours. Report of results due in Graduate College one week prior to graduation
Submit Thesis (if required)	To thesis committee, then to the Graduate College	Thesis must be approved by committee and submitted to Graduate College for final reading at least 3 weeks prior to date of graduation
Apply for graduation and pay diploma fee	Obtain application from and pay fee to Registrar's Office	According to required deadlines. Information available from Registrar or Graduate College
Secure cap and gown	College Heights bookstore (must have receipt of payment of diploma fee)	Same as deadline for payment of diploma fee
Attend graduation, or give notification of absence	Registrar's Office	Comply with instructions mailed to all paid candidates

FORM ADEGREES AVAILABLE (MASTER'S)DEGREES AVAILABLE (SPECIALIST)

(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 graduate work has been pursued. The applicant who has not yet completed the undergraduate degree should have forwarded only one transcript now and two after the degree is completed. The **Graduate Record Examination—Aptitude Section** is required of all except M.B.A. applicants, who must take the Graduate Management Admission Test. If already taken, the scores should be forwarded to the Graduate College.

Non-degree Students (e.g., students applying for Rank I or Fifth-year programs) must submit transcripts as outlined above.

Transient Students (pursuing advanced degrees at other institutions) will be mailed Form H, which must be completed and returned to the Graduate College by an official of the degree-granting institution.

Unclassified Students (pursuing coursework only) must have forwarded to the Graduate College an **official transcript** indicating completion of the undergraduate degree (unless earned at WKU).

VERIFICATION OF RESIDENCY STATUS

Please read the following statements carefully and sign below if you are claiming Kentucky residency status. The statements are from guidelines which were adopted by the Commonwealth of Kentucky Council on Public Higher Education to provide common definitions, interpretations, and administration among the state-supported institutions of higher learning in Kentucky.

The permanent dwelling place is a person's legal residence. A student who has not established residence in Kentucky is classified as an out-of-state resident. For tuition purposes, a person does not establish a legal residence merely by spending time in Kentucky, payment of taxes, owning real property, or by attending an institution of higher education. A student who is eligible to enroll as a resident student in another state cannot be enrolled as a resident student at a Kentucky state-supported institution of higher learning. A legal residence is never lost until a new one is established. Students attempting to establish residence are presumed to have met the requirements for residency when they have

maintained continuous residence in Kentucky for at least one academic year exclusive of any time spent in attendance at any institution of higher learning in Kentucky. Thus, residence must be established in Kentucky for a purpose other than enrollment at an institution of higher education. No person shall be presumed to have gained or lost in-state residence in Kentucky while serving in the Armed Forces. Persons assigned to military duty and residing in Kentucky for an indefinite period of time shall be considered residents of the Commonwealth of Kentucky. Aliens lawfully admitted to the United States for permanent residence 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. The burden of proving legal residence rests with the student. Final responsibility for the classification of students as to residency and the assessment of appropriate enrollment fees is vested in the respective governing boards of the institutions of higher education.

I hereby affirm that, after reading the above statement, I qualify as a resident of Kentucky.

(Signature)

(Date)

STATEMENT OF COMPLIANCE

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

If you have experienced discrimination in such educational programs or activities, written inquiries about procedures that are available at the University for consideration of complaints alleging such discrimination should be directed to the President's Office, Western Kentucky University, Bowling Green, Kentucky 42101. Inquiries about such alleged discrimination also may be made directly to the Director, Office of Civil Rights, United States Department of Health, Education, and Welfare, Washington, D.C. 20201.

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

WESTERN KENTUCKY UNIVERSITY GRADUATE COLLEGE

APPLICATION FOR ADMISSION

FORM A

1. Full Legal Name _____
(Last) (First) (Middle) (Maiden)
2. _____
(Soc. Sec. No.)
3. Address: Present _____
(Street Address) (City) (County) (State) (Zip Code)
- Home _____
(Street Address) (City) (County) (State) (Zip Code)
4. In an emergency, notify _____
(Name) (Relationship) (City) (State) (Telephone No.)
5. Date of Birth _____
(Month/Day/Year)
6. Sex: () M () F
7. Telephone No.s Home _____ Office _____
8. Ethnic Group (check one): () Black () White () Hispanic () Asian or Pacific Islander () American Indian or Alaskan Native
9. Citizenship _____
(Country)
10. Current Occupation: (Please be specific) _____
11. Location of Employment _____
(City) (State)
12. Are you a veteran? () Yes () No
13. Undergraduate Degree Information: _____
(Institution) (Degree) (Month and Year)
14. Previous Graduate Study (if any) _____
(Institution) (Degree or Hours) (Year)
15. Graduate Record Examination (Aptitude): Date Taken _____
(if completed, submit to Graduate College)
16. Resident of Kentucky? () Yes () No
17. Previous Enrollment at Western: Earliest date: _____ Most recent date: _____
18. Present Enrollment Plans: () On Campus () Extended Campus — — — () Fall () Spring () Summer _____
(Year)
19. Certification held, bachelor's level (if applicable)
Provisional Elementary _____ Provisional Secondary _____ Other _____
Certification held, master's level (if applicable)
Standard Elementary _____ Standard Secondary _____ Provisional Guidance _____
20. For What admission category are you applying (additional instructions, reverse side)
() Degree-seeking (master's and specialist degree applications check program desired under section "Degrees Available")
() Transient (for transfer to another institution)
() Unclassified (pursuing coursework only)
() Certification coursework only Area _____
() Fifth-Year (Rank II, certificate renewal)
() Rank I Teacher _____ Elementary _____ Secondary
() Rank I Guidance _____ Elementary _____ Secondary
() Rank I School Administration, seeking endorsement as _____ Supt. _____ Supv. _____ Prin. _____ DPP

DEGREES AVAILABLE (MASTER'S)

MASTER OF ARTS IN EDUCATION () Secondary _____ Education _____ (Major) (Minor) *Education _____ (Major) (Minor) *If Reading emphasis desired, please indicate _____ () Junior High _____ Education _____ (Major) (Minor) Education _____ (Major) (Minor) () Elementary _____ Early Childhood _____ Reading _____ () _____ Exceptional Child _____ Librarian _____ () School Counselor: _____ Elementary _____ Secondary _____ () School Business Administrator () Student Personnel Services in Higher Education () General Education	MASTER OF ARTS () Child Dev. and Family Living () Communication () Economics () English () Folk Studies () Government () History () Humanities () Psychology () Sociology () Spanish MASTER OF PUBLIC SERVICE () Agriculture () Counseling () Regional Development () Public Administration () City and Regional Planning	MASTER OF SCIENCE () Agriculture () Biology () Chemistry () Communication Disorders () Geography () Health () Library Science () Mathematics () Physical Education () Physics () Recreation () Textiles and Clothing () MASTER OF BUSINESS ADMIN. () MASTER OF MUSIC
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DEGREES AVAILABLE (SPECIALIST)

- | | |
|--|---|
| SPECIALIST IN EDUCATION
() Counseling () School Administration
() Elementary () Student Personnel Services in Higher Education
() Secondary | SPECIALIST IN COLLEGE TEACHING
() English
() History

COOPERATIVE-DOCTORAL () Education-University of Kentucky
() Biology-University of Louisville
() Chemistry-University of Louisville |
|--|---|

Mail to: Graduate College
Western Kentucky University
Bowling Green, Kentucky 42101

(Signature)

(Date)

APPLICATION INSTRUCTIONS

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(Signature)

(Date)

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INSERT FOR GRADUATE COLLEGE BULLETIN

POLICY CHANGES

By action of the University Graduate Council (9/16/80 and 10/14/80), the following changes in the GRE policy are effective for students admitted and graduate assistants appointed after January 1, 1981.

Page

- 7, "Graduate Assistantships" — 3rd paragraph: "... or a score of not less than 1250 on the Aptitude (verbal, quantitative, and analytical combined) test of the Graduate Record Examination,"
- 9, "Graduate Record Examination" — 1st paragraph: "... must submit scores on the Aptitude Test of the Graduate Record Examination regardless. . . ."
- 11, "Requirements: Master's Degree Applicants" — "C. (3) a score of not less than 1150 on the Aptitude (verbal, quantitative, and analytical combined) Test of the Graduate Record Examination."
- 11, "Requirements: Specialist Degree Applicants" — "C. Score not less than 1250 on the Aptitude (verbal, quantitative, and analytical combined) Test of the Graduate Record Examination."
- 11, "Applicants From Non-regionally Accredited Institutions" — 1st paragraph: "... a minimum GRE Aptitude (verbal, quantitative, and analytical combined) score of 1250,"
- 12, "Applicants From Non-regionally Accredited Institutions" — Last paragraph: "A student with a combined verbal, quantitative, and analytical GRE score of at least 1400 or"
- 13, "Specialist in College Teaching and Specialist in Education" — "Admission. . . . a combined score of at least 1250 on the Aptitude (verbal, quantitative, and analytical combined) Test of the Graduate Record Examination,"

10/80

Page 8.....Graduate Fees

Beginning Fall Semester, 1981

In-state	\$37 per semester hour	1-8 hours
	\$331	9-15 hours
Out-of-state	\$104 per semester hour	1-8 hours
	\$930	9-15 hours

Beginning Fall Semester, 1982

In-state	\$44 per semester hour	1-8 hours
	\$391	9-15 hours
Out-of-state	\$126 per semester hour	1-8 hours
	\$1,132	9-15 hours

The cost of printing this publication by Western Kentucky University was paid from state funds KRS 57.375.