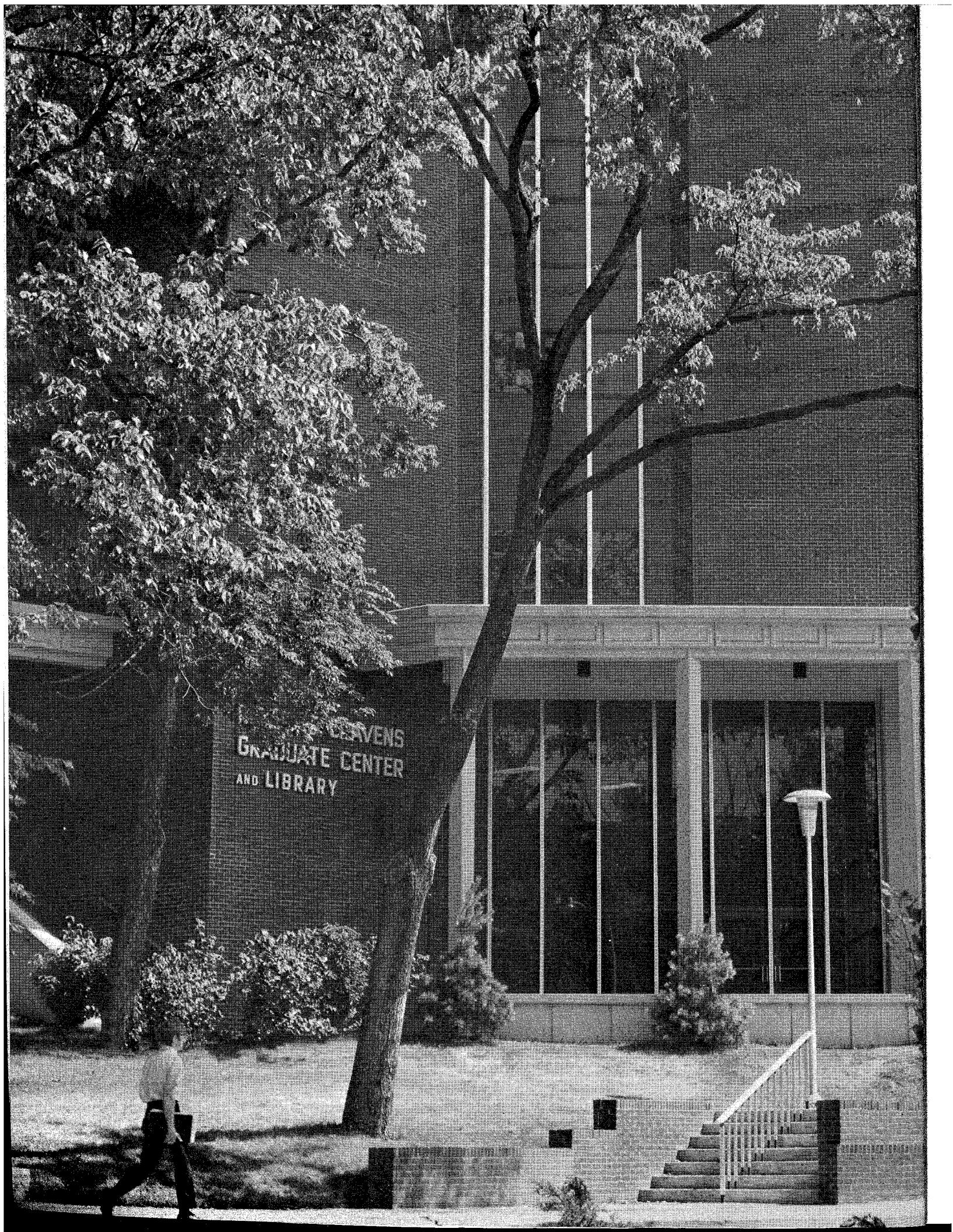


THE UNIVERSITY OF TORONTO PRESS

GRADUATE COLLEGE ISSUE

WESTERN KENTUCKY UNIVERSITY BULLETIN 1976-77 GRADUATE COLLEGE ISSUE



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HISTORICAL SKETCH OF THE UNIVERSITY

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.

CULTURAL PROGRAMS AND FACILITIES

Cultural Opportunities

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

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

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

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

Western is visited each year by a touring French theatrical company, Le Treteau de Paris, which presents a classical or modern drama in the original French.

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

Lecture Series

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

Hardin Planetarium

The Hardin Planetarium is a circular unit adjacent to the Thompson Science Complex. The Planetarium 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 regularly. Facilities for swimming, dancing, tumbling, gymnastics, table tennis, judo, karate, wrestling, basketball, volleyball, badminton, tennis, weight training, conditioning, handball, squash, tennis, and archery 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.

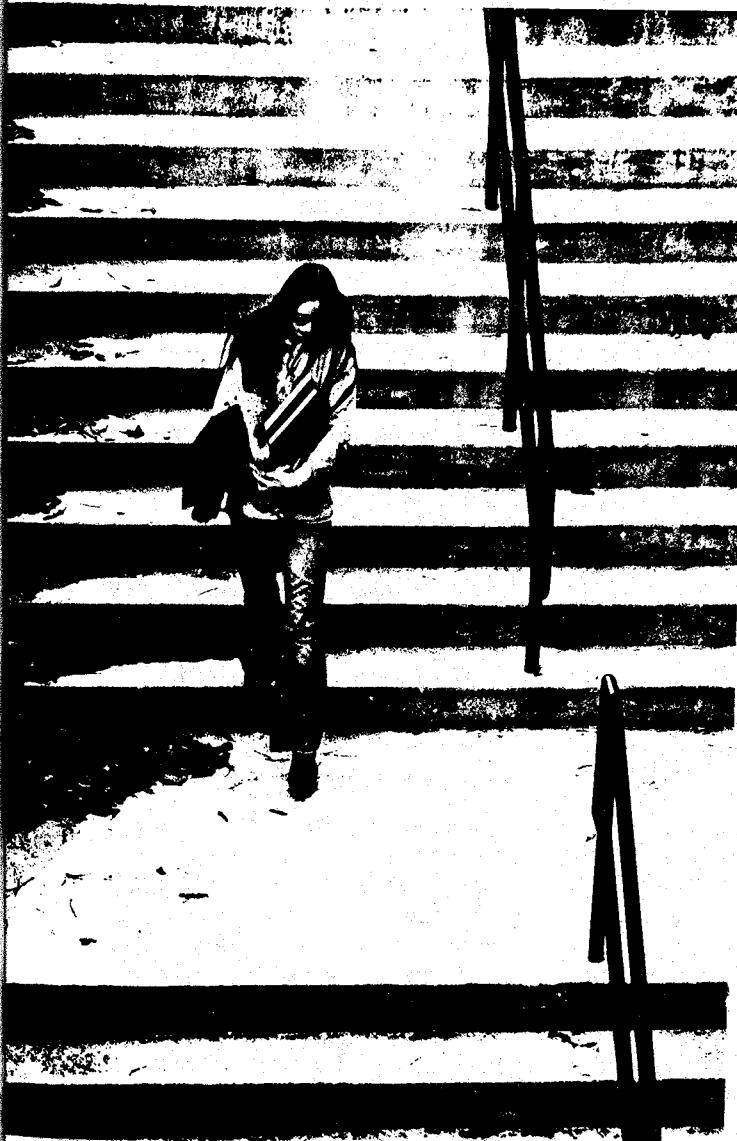
Summer Quarter in Mexico

Western Kentucky University has a contract with the University of

the Americas whereby qualified students from Western and other institutions may participate in various summer programs on the campus of the University of the Americas in Puebla, Mexico. The basic programs are the Summer Quarter (nine weeks) and Workshops (four and one-half weeks each) in the Mexican Way of Life and in Mexican Culture. Additional programs may be added if the demand arises.

Under the present programs, graduate students may obtain from six to ten hours (more with special permission) of Western resident credit.

Information about specific graduate courses and programs in any of the areas of international education may be obtained from Dr. Paul Hatcher, Coordinator of International Education and Chairman of the Committee for Admission to the Summer Quarter in Mexico Program.



TITLE IX EDUCATION AMENDMENTS OF 1972

Sex Discrimination in Education

Title IX of the Education Amendments of 1972 requires that Western Kentucky University not discriminate on the basis of sex in its education programs, admissions, employment practices, and activities which it operates. It is the policy of Western Kentucky University to comply with this requirement.

Any person having inquiries concerning Western Kentucky University's compliance with Title IX may contact the following persons who have been designated by the University President to coordinate Western's effort to comply with Title IX:

Dr. John D. Minton
Vice President for Administrative Affairs
Wetherby Administration Building, 207E
Western Kentucky University
Telephone 745-2434

or

Dr. Faye Robinson
Assistant Dean, Graduate College
Cravens Graduate Center
Western Kentucky University
Telephone 745-2446

Inquiries about Title IX requirements may also be made to the Director, Office for Civil Rights, U.S. Department of Health, Education and Welfare, Washington, D.C. 20201.

UNIVERSITY LIBRARIES, RESOURCE CENTERS AND INSTRUCTIONAL MEDIA

Support to the Research and Instructional Program of the University is provided through the activities and programs of the Division of Library Services, Media Services, and the University Archives. The major purpose of these programs is to 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) Wilson Hall Study Center, and (7) Jones-Jaggers Laboratory School Library. These libraries and study 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 665,000 volumes; 3,300 journal holdings; 250,000 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. Under the terms of a cooperative agreement between the University and the Warren County Bar Association, the Warren County Law Library is housed in the library. Various computer based research services are available, and the retrieval of these primary resources is accomplished through cooperation with the University Computer Center 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 Kentuckiana. There are 22,000 books, 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 provides 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.

University Archives

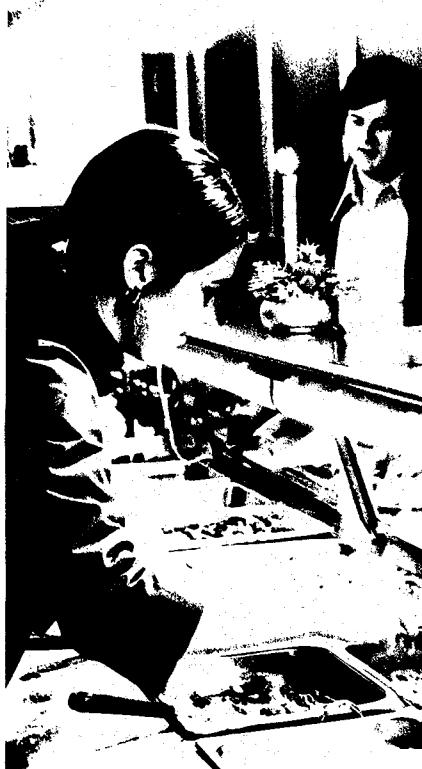
The University Archives is housed in the Helm Library. The purpose of the Archives is to collect, preserve, and organize for appropriate use the records of the University which are required for administrative functions and are essential for the historic study of the institution and its genealogical antecedents. 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.



The University Counseling Services Center

The Center is located in the College of Education Building, Room 408. Responsibilities assigned to the Center include the administration of the national testing programs, such as the Graduate Record Examination and the Graduate Management Admissions Test, which are required by various departments of the University. Testing information and registration packets are available at the Center.

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 are provided, and compact refrigerators are available on a lease basis.

Food Services

The University maintains a variety of food services on the campus including 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.

THE FOLLOWING FINANCIAL AID PROGRAMS ARE AVAILABLE

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. The application form (available in the Student Financial Aid Office) is completed by the student, certified by the Student Financial Aid Office, and presented to the bank by the student.

College Heights Foundation Loan. This loan permits borrowing with a low-interest rate and usually requires repayment on a short-term basis. Applications are available in the Student Financial Aid Office.

Workshops

The University participates in both a work-study and a regular program of employment whereby a student may work 15 hours per week during the regular term of study, providing

such work is needed to balance the college expense budget. The work-study program offers summer employment which permits the student to work 40 hours per week. Eligibility to participate in a work-study program is based on family income. Assistance in obtaining off-campus employment is also available.

How to Apply

Obtain an Application for Financial Assistance from:
Office of Student Financial Aid
Western Kentucky University
Bowling Green, Kentucky 42101

When to Apply

The following deadlines must be observed for maximum consideration of Financial Aid Applications:
March 15 — Fall Semester only
March 15 — Fall and Spring Semesters Combined
December 1 — Spring Semester only
March 15 — Summer Session only

Applications received after these dates can be considered only if funds are not exhausted. Early applications are encouraged.

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 De-

ceased 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 are available in various departments 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 graduate assistant's fees is awarded in the form of a scholarship.

Graduate assistants are permitted to carry a maximum of 12 hours per semester. Some departments require their assistants to attend seminars in teaching. Since graduate assistants have professional responsibilities to the University, they are expected to familiarize themselves with University policies and responsibilities and to fulfill their obligation in this respect. Stipends are paid at the middle of each working month.

For maximum consideration, the applicant for a graduate assistantship should exceed minimum Graduate College admission requirements 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.



ACADEMIC YEAR, REGISTRATION PROCEDURES, AND SCHEDULE CHANGES

Academic Year. The University provides a year-round instructional program consisting of the fall and spring semesters, May term, and summer term. A wide offering of graduate courses is available to students during the regular semesters and summer term; a limited offering of graduate courses is available during the May term.

Registration Procedures. The computer is utilized to facilitate registration for Western students. A student planning to register for an on-campus class must follow these procedures for obtaining a registration packet:

1. Regular semester and summer term registration packets will be prepared without request for those students who were enrolled either full-time or part-time during the preceding calendar year. A student who has not been enrolled during the previous calendar year must obtain from the Office of the Graduate College a packet request form which must be completed by the student and returned to the Graduate College.

2. May term registration packets are prepared only on request by the student. Students enrolled on campus may obtain the May term registration packet at the Office of the Registrar. Students not enrolled on campus may obtain the registration packet by contacting the Office of the Graduate College. May term registration may be completed by mail.

Registration for an extended campus class is accomplished through the instructor, who provides the necessary registration materials at the first class meeting.

Schedule changes. The University reserves the privilege, at all times, of cancelling any course for which the enrollment is not sufficient to justify its continuation and of mak-

ing any other necessary adjustments in the schedule.

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



FEES

GRADUATE FEES BEGINNING FALL 1977	
RESIDENT - 9 OR MORE HOURS	\$275 OR
NON-RESIDENT - 9 OR MORE HOURS	\$700
1974-75	\$31 PER CREDIT HOUR
1975-76	
Summer 1976	
Part-time Stuc	
Registration	
Date	
1974-75	
1975-76	
Summer 1976	

Note: Full-time graduate students take 9 to 15 hours during the regular semester, 5 to 9 hours during the summer session.

Fees are subject to change without advance notice.

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. The granting of university status in 1966 gave the Graduate School increased opportunity both to strengthen the present programs and to offer an even wider choice of program areas as faculty and resources became available. The name of the Graduate School was changed in 1969 to Graduate College, to be consistent with the other colleges in the University.

Organization

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, college deans, and 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.



GENERAL ACADEMIC REGULATIONS

Course Load

The number of semester hours of credit which may be earned during a given term may not exceed the number of weeks of instruction (except in the summer term in which nine semester hours may be earned in eight weeks).

A full-time graduate student may earn a maximum of 15 hours during a regular semester. Graduate assistants are limited to 12 hours per semester. Maximum hour limitation includes all courses taken—whether they are for graduate, undergraduate, or audit credit.

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

Course Numbering System

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

B. Upper division undergraduate courses which are numbered at the 400-level and designated "G" (e.g. Eng. 401G) may be taken for graduate credit. In these courses, graduate students are expected to complete additional course requirements to be prescribed by the instructor.

C. Courses numbered at the 300-level are considered undergraduate courses and will not be accepted for graduate credit unless permission is granted prior to enrollment in the course. All requests 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.

D. Graduate credit is not given for correspondence study.

Grades

Candidates for graduate degrees are required to have an average of "B" in all courses applicable to the degree. The minimum grade for a master's thesis or specialist project is "B."

Grades lower than "C" do not contribute any quality points and may not be used in meeting degree 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."

Graduate Record Examination

All students pursuing master's degrees (excluding MBA candidates) must take the Graduate Record Examination and are required to complete 20 hours of graduate work after having taken the Examination. Students pursuing the specialist degree must complete the Graduate Record Examination prior to admission. Registration materials for this test may be obtained from the University Testing and Counseling Center or from the Graduate College.

Transfer Credit

Twelve hours of transfer work may be accepted toward meeting course requirements for both the master's and the specialist degrees. The course(s) must be properly designated as having been taken

for graduate credit at an accredited institution and must carry a grade of "B" or above.

The course work must not exceed the five-year time limit for the master's degree nor the four-year time limit for the specialist's degree.

The hours to be transferred must be appropriate for the degree program being followed and must be approved by the student's graduate advisor(s) and by the Graduate Dean. At least six hours in the minor area and at least twelve hours in the major area must be taken with Western.

Time Limit for Completion of Degree

All students admitted after January 1, 1974, must complete all requirements for the master's degree within five years from the date the first course was taken.

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

English Proficiency Evaluation for Foreign Students

Prior to enrollment in graduate courses, students from non-English speaking countries are evaluated as to their ability to communicate in the English language. Students found to be deficient in these skills are required to pursue remedial work in English.

Seniors Earning Graduate Credit

Seniors at Western may enroll in graduate courses during their last semester of undergraduate course work provided the following regulations are met:

A. The completion of a formal application to graduate study.

- B. An undergraduate grade point average of 2.5 at the time of application.
- C. The combined undergraduate and graduate course load must not exceed the maximum hour load for graduate students.
- D. The courses to be taken for graduate credit must not, in any way, apply to the undergraduate degree.

Student's Graduate Advisor and/or Committee

Upon admission to the Graduate College the master's degree candidate is assigned one or more advisors to assist in planning the graduate program of study. The candidate for the specialist degree, as well as the master's degree student writing a thesis, will have a three-member committee to assist in planning the program, to direct the thesis or project, and to administer the comprehensive examination.

Degree Program

All graduate students (except those in the "transient" or "special" student categories) are required to submit a planned degree program, outlined on Form C, prior to or upon completion of nine hours of graduate credit or prior to the completion of the first semester of enrollment if enrolled in more than nine hours. All degree programs must be reviewed and approved by the Graduate College.

Program Substitutions and Changes

Before making any changes in an approved graduate program the student must obtain a Program Substitution Form, have it completed and signed by the graduate advisor(s), and submit it to the Graduate Col-

lege for approval. Such changes include the addition or deletion of a course, the substitution of a transfer course for a Western course, and the substitution of one Western course for another.

Procedures for Changing from One Graduate Degree Program to Another

A student who changes from one degree program to another will be required to satisfy admission requirements of the new program. Admission to a new degree program constitutes a new date of admission. The student's graduate advisor(s) will assist in planning the new program and will recommend the applicability of courses taken in the previous program.

Admission to Candidacy for A Degree

Admission to the Graduate College does not qualify a student as a candidate for an advanced degree. The student must apply for and be admitted to degree candidacy. This procedure is initiated by completing Form D, Admission to Candidacy, which may be obtained from the graduate advisor or from the Graduate College. Degree candidacy is subject to the following requirements:

- A. The student must have a degree plan on file in the Graduate College.
- B. At the time of degree candidacy, any provisional or conditional status must have been removed.
- C. The student must have completed at least 12 and not more than 20 semester hours toward the program of study at Western.
- D. The student's advisors and/or graduate committee must sign the candidacy form.

- E. The Graduate Council must approve all applications for candidacy.

Examinations, Written and Oral

All graduate degree programs require that either a written or an oral examination be completed during the candidate's last period of enrollment prior to graduation.

- A. **Written Examinations.** Some programs within the Master of Arts in Education degree require a written comprehensive examination. Candidates for this degree should contact the College of Education for information regarding comprehensive examinations.

After February 15, 1976, students admitted to the administration option of the Master of Public Service degree are required to take a written comprehensive examination. Information may be obtained from the Public Service Institute.

- B. **Oral Examinations.** Most other degree programs including the specialist degree require an oral examination.

- (1) The scheduling of the oral examination is the responsibility of the candidate's major advisor.
- (2) The examining committee will consist of the graduate committee appointed from the major department at the time of admission. In the case of the Master of Arts in Education the examining committee will consist of the major advisor, the minor advisor, and one additional member selected from the major department by the major advisor.
- (3) The major advisor will arrange a time and place ac-

ADMISSION POLICIES AND PROCEDURES

ceptable to both the student and the committee for the examination. The Graduate College will be notified of the results of the examination through the use of Form E which provides for the signature of each committee member.

Application for Degree

A degree application form is necessary to initiate clearance for graduation. The candidate is expected to complete and return a degree application and graduation fee to the Registrar's Office by February 1 for a degree to be awarded at the May commencement and by May 1 for a degree to be awarded at the summer commencement.

Thesis and Specialist Project

Students pursuing the master's thesis or the specialist project must register for a total of six (6) hours of credit in 599 — Thesis Research and Writing or 699 — Specialist Project, respectively.

Any student who fails to complete the thesis or specialist project within the maximum six hours of credit must maintain matriculation until the thesis or project report is approved. Therefore, if such a student is not enrolled in one or more courses carrying graduate credit, he/she must register for 599c (thesis) or 699c (project) during any succeeding semester or summer term in which the thesis or project is being actively pursued or is submitted for approval. Enrollment in 599c or 699c does not result in credit toward any degree or non-degree program requirements.

The thesis and/or specialist project must be submitted to the Graduate College at least three weeks prior to the date of graduation. It



must be in final form and approved by the student's Graduate Committee. Before the student can graduate, the thesis or project must also be approved by the Dean of the Graduate College.

Guidelines are available in the Graduate College office.

Guidelines for Obtaining a Second Master's Degree

A student pursuing a second master's degree from Western Kentucky University must:

- A. Satisfy admission requirements for the new degree.
- B. Satisfy coursework requirements for the new degree, earning at least 18 hours of new coursework (or 12 hours plus the thesis) at Western. No more than 12 hours of previous coursework, whether transferred from another university or from the previous master's degree at Western (or any combination of the two), will be accepted in the new degree program.
- C. Meet all requirements for the second degree including the thesis (or any option used in lieu of the thesis), research tool, etc.

Initial Procedures

Students desiring admission to the Graduate College must obtain Form A (Application for Admission) from the Graduate College. This form must be completed and returned to the Dean of the Graduate College. Applicants who are graduates of Western Kentucky University are not required to request transcripts of their work at Western. Graduates of other institutions must have the degree-granting institution forward to the Graduate College two official transcripts showing the completed degree. Those applicants who have not completed their undergraduate degrees should forward only one official transcript at the time of application and two official transcripts after the degree is completed.

Transient students (students who are working toward a degree at another institution) must complete Form A, but they are not required to have transcripts forwarded. Transient students must obtain Form H from the Graduate College and have it completed by an appropriate official at the institution where the student is pursuing a degree. This completed form must be returned to the Dean of the Graduate College at Western prior to enrollment.

Special students (graduate students who are not seeking an advanced degree) must complete Form A and, if not a Western graduate, have one official transcript of the undergraduate degree work forwarded to the Graduate College.

Admission from Non-Accredited Institutions

Applicants from non-accredited institutions may be admitted conditionally provided they have an undergraduate grade point average of 2.5 or better and present a score of 800 or above on the combined apti-

DEGREES AVAILABLE AT WESTERN

tude section of the Graduate Record Examination. Upon the completion of twelve hours of graduate credit with a grade point average of above 3.0, the conditional status may be removed.

Non-Degree Students

Any person who holds a bachelor's or master's degree from a college or university of recognized standing is eligible for admission to graduate study on a non-degree basis at Western.

Master's Degree Applicants

Students applying for graduate study with the objective of earning a master's degree must meet the following requirements:

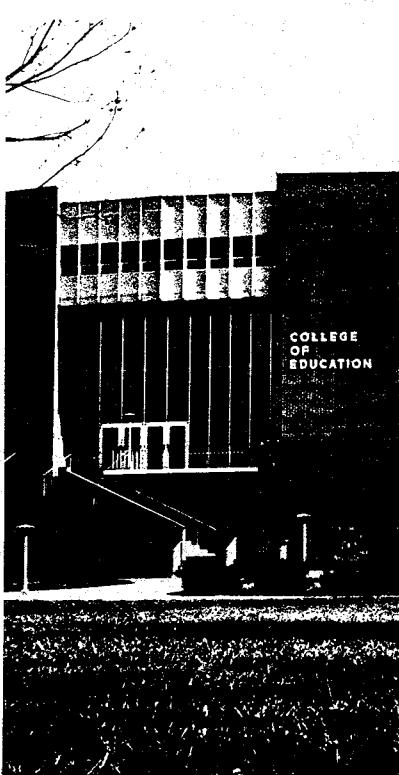
- A. Hold a bachelor's degree from a college or university of recognized standing.
- B. Have adequate preparation in the field of specialization chosen for graduate study.
- C. Have (1) an overall grade point average of not less than 2.5, or (2) have a grade point average of 2.5 on the last sixty semester hours of undergraduate work, or (3) score not less than 700 on the aptitude test of the Graduate Record Examination (verbal and quantitative combined). However, requirements for admission to certain programs may be higher than these minimum standards.
- D. Submit Graduate Record Examination scores (aptitude section), regardless of undergraduate grade point average, prior to beginning the last 20 hours of degree coursework. Students applying for admission to the Master of Business Administration degree program submit scores

on the Graduate Management Admissions Test in lieu of GRE scores.

Specialist Degree Applicants

Persons applying for a specialist degree program must meet the following requirements:

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



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, counselor education, economics, elementary education, English, English and allied language arts area, French, geography, German, government, health, health and safety, history, home economics, industrial education, library science, mathematics, math-science area, music, physical education, psychology, science area, secondary education, social science area, Spanish, special education, speech, and student personnel services.

The degree program permits minors in the following areas: agriculture, art, biology, business education and office administration, chemistry, 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, secondary education, sociology, Spanish, speech and theatre.

Master of Arts in College Teaching. Programs leading to the M.A.C.T. degree are offered in the following fields: biology, chemistry, geography, history, mathematics, and Spanish.

Master of Science. Programs leading to the M.S. degree are offered in the following fields: agriculture, biology, chemistry, geography, health, library science, mathematics,

OUTLINE OF REQUIREMENTS FOR GRADUATE DEGREES

physical education, physics, recreation, and textiles and clothing.

Master of Business Administration

Master of Music

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

Master of Science in Engineering Physics

Specialist Degrees. The Specialist Degree in Education is available in counselor education, elementary education, school administration, and secondary education. The Specialist Degree in College Teaching is offered in English and history.

Doctoral Degrees. 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.



Requirements for the Master of Arts, Master of Arts in College Teaching, and Master of Science Degrees

Admission. In addition to meeting the Graduate College requirements for admission in good standing, students in these degree programs must possess at least a minor or its equivalent and a grade average of approximately 2.7 in the intended area of study. (Some departments require a 3.0.)

Coursework. A total of 30 hours is required (or 24 hours plus thesis). A minimum of 15 hours must be in courses open only to graduate students.

Research Tool. The student may meet the research tool requirement by either: (1) demonstrating a reading ability sufficient to do scholarly research in a foreign language appropriate to the major area, or (2) demonstrating competency in the use of appropriate research techniques that have been recommended by the departmental advisor(s) and approved by the Dean of the Graduate College. Some departments, however, require a foreign language. No course credit earned in meeting research tool requirements will apply toward the credit hours required for the degree.

Thesis: Some departments offer both Plan A (thesis) and Plan B (non-thesis). If Plan A is chosen, the thesis topic must be approved by the student's advisor and the head of the department. Any student who fails to complete the thesis within the six-hour maximum credit must maintain matriculation until the thesis is approved. Therefore, if such student is not enrolled in one or more courses carrying graduate credit, he/she must register for 599c during any succeeding semester or summer term in which the thesis is being actively pursued. Enrollment

in 599c does not result in credit toward any degree or non-degree program requirements.

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

Requirements for the Master of Arts in Education Degree

Admission. Applicants must meet the Graduate College requirements for admission. In addition, students applying for a program which involves teacher certification must meet the certification requirements for that specific program.

Coursework. Under Plan A (thesis) candidates must complete a minimum of 24 semester hours of graduate-level coursework plus the thesis. Under Plan B (non-thesis) candidates must complete a minimum of 30 hours of graduate-level coursework. All students pursuing this degree must complete Education 500—Research Methods—and must take at least 15 hours in courses open only to graduate students. Candidates must also meet coursework requirements for the certification being pursued.

Research tool. No research tool is required.

Thesis. A student following Plan A completes research on a topic approved by the advisory committee and writes a thesis. He/she receives six hours of credit for this project by registering for 599—Thesis Research and Writing. Any student who fails to complete the thesis during the period(s) of enrollment in 599 must maintain matriculation until the thesis is approved. If not enrolled in at least one course carrying graduate credit, such student must register for 599c during any succeeding semester or summer term in which

the thesis is being actively pursued. Enrollment in 599c does not result in credit which is applicable toward any degree or non-degree program requirements.

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

Requirements for the Master of Public Service Degree

Admission. The applicant must meet Graduate College admission requirements and must submit evidence of sufficient background in the area of the desired option.

Coursework. The student is required to complete a minimum of 30 semester hours (or 24 hours plus thesis) of graduate-level course work, of which 9-12 must be selected from the M.P.S. core area. At least 15 hours must be taken in courses open only to graduate students.

Research Tool. No research tool is required.

Thesis. The thesis is optional.

Final Examination. A final examination over the coursework (and thesis, if chosen) must be satisfactorily completed.

Requirements for Other Master's Degrees. Specific information for the Master of Business Administration, Master of Music, and Master of Science in Engineering Physics degrees is given under the respective departments.

Requirements for the Specialist in Education Degree

Admission. The applicant must have a master's degree (or the

equivalent), a minimum grade point average of 3.25 on the first 30 hours of graduate work, a combined score of at least 800 on the aptitude portion of the Graduate Record Examination, and three letters of recommendation (sent directly to the Graduate College) from professors and professional colleagues.

Coursework. The candidate must complete a minimum of 30 semester hours of graduate credit, 21 of which must be in courses open only to graduate students..

Residency. A minimum of 15 hours must be taken while in full-time residency on campus. This requirement may be fulfilled by spending two summer terms, two semesters, or one semester and one summer term on campus at Bowling Green.

Admission to Candidacy. A minimum of nine hours must be completed in residency on campus at Bowling Green before admission to candidacy. Admission to candidacy must be accomplished prior to the completion of the final 15 hours of credit.

The 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. The student receives six hours of credit for this project by registering for 699—Specialist Project. Any student who fails to complete the specialist project during the period(s) of enrollment in 699 must maintain matriculation until the project is approved. If not enrolled in one or more courses carrying graduate credit, such student must register for 699c during any succeeding semester or summer term in which the project is being ac-

tively pursued. Enrollment in 699c does not result in credit which is applicable toward any degree or non-degree program requirements.

Final Examination. An oral and/or written examination covering the coursework and project must be satisfactorily completed.

Requirements for the 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. Eligibility is dependent upon the transmission of one official transcript 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 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), satisfactory completion (foreign students only) of the Test of English as a Foreign Language (TOEFL scores are to be sent to the University of Louisville), approval by the graduate faculty members in biology at both institutions, and 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 equivalent of at least three years of full-time graduate study is required, at least two years of which must be spent on the cooperative campus (Western Kentucky University campus and/or the University of Louisville campus). A minimum of one year of full-time residence must



be spent on the cooperative campus. The student's graduate committee will consist of at least five members, with at least two members from the appropriate department at the University of Louisville and at least two members from the appropriate department at Western Kentucky University. The committee assists the student to develop a program consisting of a major field and minor

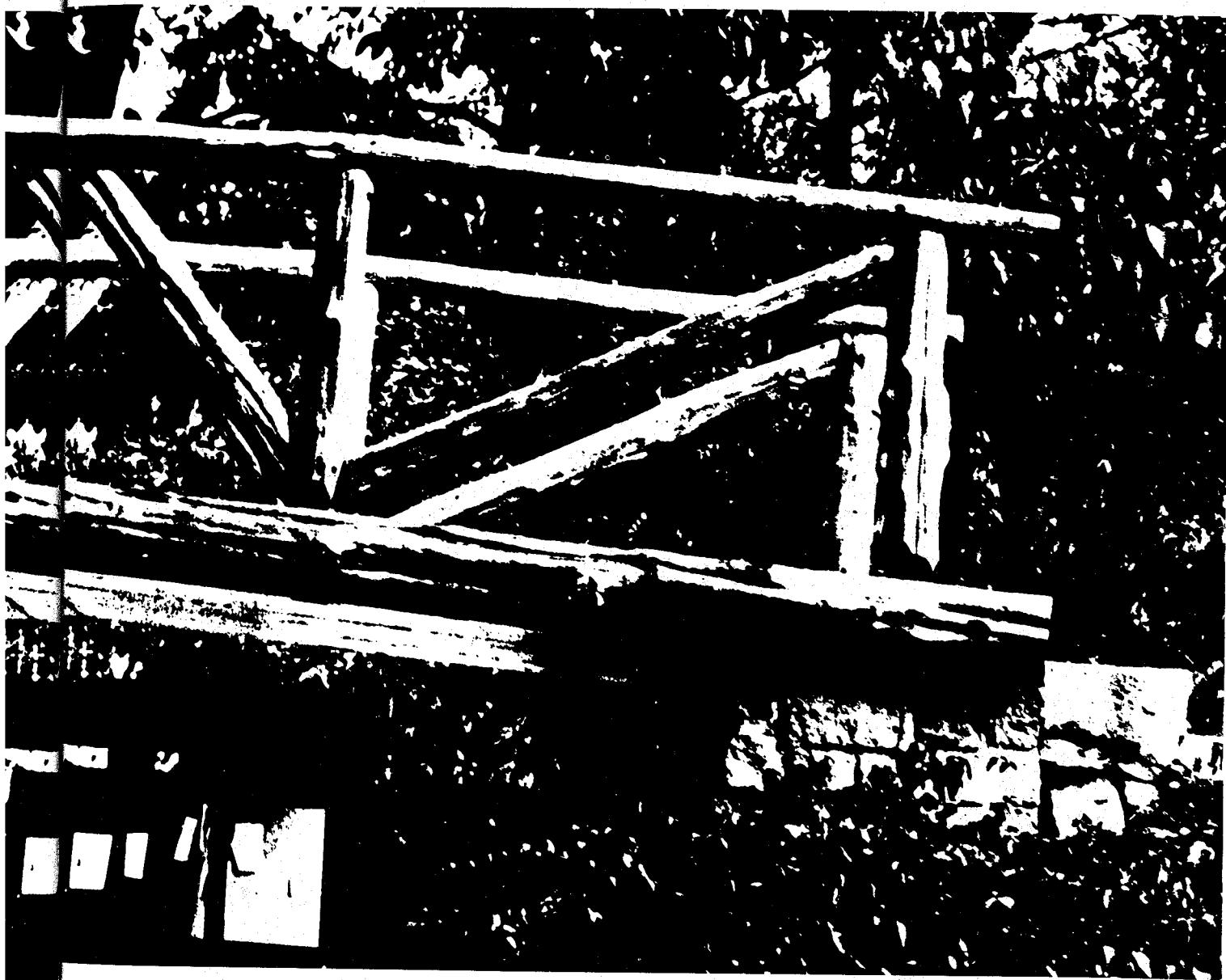
fields which are planned according to the needs of the student.

The student must have satisfactorily completed course work in calculus prior to application or must do so early in the course of study. Upon entering the program the student must take an examination over material from the broad field of biology.

A preliminary oral and/or written

examination must be satisfactorily completed after the student completes the major portion of the prescribed coursework but before admission to candidacy. The student must also demonstrate a reading knowledge of at least one modern foreign language before admission to candidacy.

A dissertation is required of all candidates. The final oral exami-



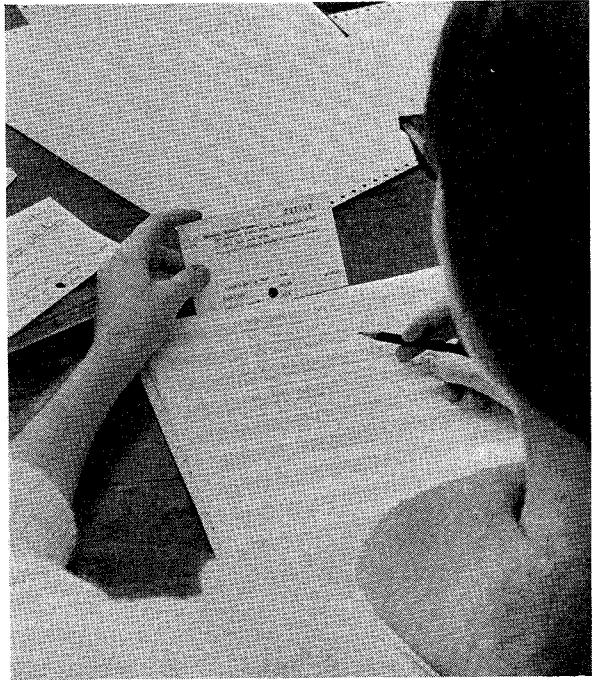
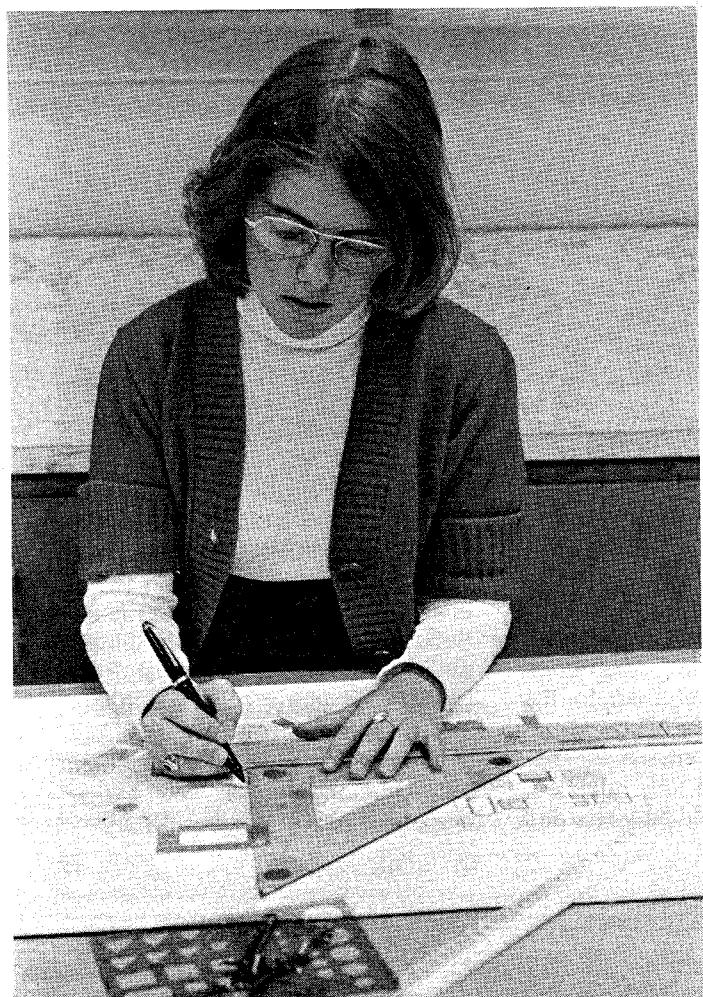
nation consists of a defense of the dissertation and a demonstration of the candidate's mastery of the field of study.

Joint-Doctoral Program with the University of Kentucky

Admission to this program requires concomitant admission to the

Graduate College at Western and to the Graduate School and doctoral program at the University of Kentucky. The admission 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 the applicant is considered fully qualified, his/her 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, the completion of the Miller Analogies Test if the GRE verbal score is below 600, personal references, transcripts of previous academic work, a statement of educational goals, and a brief autobiography.



COLLEGE OF APPLIED ARTS AND HEALTH

DEPARTMENTS

Health and Safety

Home Economics and Family Living

Library Science

DEGREES OFFERED

Master of Arts (Child Development and Family Living)

Master of Public Service (Child Development and Family Living)

Master of Science (Library Science, Health, 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

J. David Dunn, Head

Graduate Faculty

Professor: J. Kirchner
Associate Professors: D. Dunn, M. Lockwood, G. Lohr
Assistant Professors: H. Baughman, R. Baum,
B. Goodrow, J. Price, N. Schira

Degrees Offered: Master of Arts in Education (Health major and minor, Health and Safety major and minor), Master of Science in 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 program, (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 is designed to meet the needs of a wide range of health 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 is sufficient to allow for individual consideration of student needs, expectations, and career objectives in planning the student's program. To pursue the Master of Science in Health, each candidate must submit at least a minor in health or adequate previous education in the sciences basic to health.

Master of Arts in Education (Health major or minor)

The candidate 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 the student must complete 12 to 15 hours in health, includ-

ing 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)

The candidate 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, the student 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

The candidate for the Master of Science in Health must complete Health and Safety 501, 520, 567, 482G, and 599 (thesis) or 546 (field practicum). An additional 12 hours of elective graduate coursework will be chosen in consultation with the candidate's graduate committee and may be selected from the health and safety course offerings as well as related disciplines. Students may meet the research tool requirement by demonstrating (1) competency in research techniques or (2) reading proficiency in a foreign language.

Graduate Courses in Health and Safety

- 501 Analysis of Research in Health and Safety. 3 hours.**
A critical analysis and review of selected studies in health and safety literature related to methods, materials, techniques, and planning of research studies used and conducted by the profession.
- 520 Interpretation of Health and Safety Data. 3 hours.**
Application of statistical techniques to health and safety data. Basic principles and techniques in designing and analyzing health problems are emphasized.
- 530 Independent Investigations in Health and Safety. 1 to 3 hours.**
Prerequisite: Health and Safety 520.
Special research problems or projects in the area of health and safety.
- 545 The Health Education Curriculum. 3 hours.**
Prerequisite: Education 580.
For health educators and administrators. Con-

sideration of various health curriculum guides and curriculum studies in health education. Laboratory work in construction of curriculum guides.

546 Field Work in Community Health Programs. 3 hours.

Study of the philosophy, organization, and services of community health organization. Includes observation of, and participation in, local community health programs in voluntary and governmental health agencies.

567 Administration and Supervision of Health and Safety Programs. 3 hours.

Examines the responsibilities, activities, and problems of administering and supervising health and safety programs within, and among the school and other community agencies.

570 School and Community Safety Programs. 3 hours.

Examines the responsibilities, activities, and problems of school and community safety programs. Special emphasis on the organization and operation of pupil transportation programs. A thorough examination of home, fire, traffic, and transportation, industrial and public safety.

599 Thesis Research and Writing. 6 hours.

Prerequisite: Research Tool or consent of graduate advisor.

The thesis must deal with a particular field of specialization within the general area of health and safety, must indicate individual research, and must conform to the Graduate College requirements for thesis writing.

599c Maintaining Matriculation. 1 to 6 hours.

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

460G School and Community Health Workshop. 3 hours.

Coordination of school and community health programs and personnel in seeking solutions for common health problems. Sponsored jointly by the Kentucky State Department of Health, Kentucky State Department of Education and Western Kentucky University. Includes field trips to health agencies.

461G School Health Organization. 3 hours.

Presenting standards and criteria for the three phases of the school health program: health services, healthful school environment and health instruction. Discussion of the role of administrators, teachers, counselors and health service personnel in conducting and coordinating the total school program. Includes visitation in public schools.

462G Consumer Health. 3 hours.

Examines the benefits and/or hazards of and

HEALTH AND SAFETY

criteria for selection of health related products and services. Methods and techniques of health frauds are analyzed. Field trips may be required.

465G Health and Safety in the Elementary School. 3 hours.

Prerequisite: Three hours of health.

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

469G Critical Issues in Health and Safety. 3 hours.

Prerequisites: Health 260, 361, and Psychology 250.

Analysis of current health problems from both school and community viewpoints. Permits in-depth exploration, through research and discussion, of specific local, national and world wide health and safety problems.

470G Driver Education and Traffic Safety II. 3 hours.

Prerequisite: Safety 370 or equivalent.

This course deals with the management of the classroom and laboratory phases of the high school driver and traffic safety education program. Simulation and range programs are given special emphasis.

471G Advanced Studies in Driver Education. 3 hours.

Prerequisite: Safety 370 or equivalent.

This course deals with the advanced instructional technology needed to meet the needs of the driver and safety education program. Major emphasis will be placed on motorcycle safety education and on the behavioral approaches to traffic safety education.

481G Environmental Factors of Health Problems. 3 hours,

Examines the environment and its relationship to disease causation. Physical, chemical, biological and behavioral-sociological factors of man's environment will be discussed. Areas of concentration include the ecology of health and disease, air and water pollution, insect vector and rodent control, noise pollution, population imbalance and consumer protection. Includes field trips.

482G Principles of Epidemiology. 3 hours.

The basic principles of epidemiology are presented. Epidemiologic methods are applied to both infectious and noninfectious diseases. Offers the opportunity for critical analysis of the epidemiologic process in solving various classical epidemics. Epidemiologic methodology is also used to analyze modern health problems.

DEPARTMENT OF HOME ECONOMICS AND FAMILY LIVING

William Floyd, Head

Graduate Faculty

Professors: E. Elbert, W. Floyd

Associate Professors: G. Callaway, L. Fong, D. Hayden,

R. Hedges, M. Jenkins, W. Kleeman, S. Russell

Assistant Professor: J. Rasdall

Degrees Offered: Master of Arts in Child Development and Family Living, Master of Arts in Education (Home Economics Education major and minor), Master of Public Service (Child Development and Family Living option), 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 usually taken as 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 candidate may fulfill the research tool requirement 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.

The major requires 18 hours, and the remaining hours of the total of 30 must come from closely related studies in counselor education, psychology, or sociology. The 18 hours in the major are HEFL 491G, 576, 577, 578, 579, and 580.

The remaining hours may be selected from the following:

- Ed. 501. Educational Statistics
- Ed. 558. Counseling Theory and Practice
- Psy. 563. Test Construction and Psychometric Theory
- Psy. 640. Psychopathology
- Soc. 520. Studies in Family Relations
- Soc. 590. Sociological Research Design and Analysis

Master of Public Service (Child Development and Family Living option)

This degree is an interdisciplinary program consisting of offerings from several departments. It is designed to prepare individuals to serve in governmental positions which require administrative training as well as knowledge of the particular areas they are to administer.

The Child Development and Family Living option stresses clinical practice and is appropriate for persons in child welfare, mental health, and pastoral care. Core courses for this option are:

- *Pub. Affairs 540. Public Administration
 - Sociology 565. Studies in the Community
 - Psychology 551. Social Psychology of Organizations
 - Education 558. Counseling Theory and Practice
- The 18 hours in the major are HEFL 491G, 576, 577, 578, 579, and 580.

*Required of all M.P.S. students.

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. The major requires 18-21 hours in home economics and family living and 9-12 hours professional education. Required courses for the major are HEFL 572, 573, and 574 and Educ. 540. Usually Educ. 576 and 577 are taken unless a thesis is written. Electives in the major area should total six to nine hours and must be approved by the advisor. The minor requires 12-15 hours in home economics and family living and 15-18 hours in professional education..

Master of Science in Textiles and Clothing

The Master of Science in Textiles and Clothing 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 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 and 537 and six additional hours of textiles and clothing coursework, six hours of departmental electives, a cognate field consisting of six hours as approved by the graduate committee, and a thesis dealing with a specific area of textiles or clothing (Plan A) or six hours of approved coursework in lieu

HOME ECONOMICS AND FAMILY LIVING

of thesis (Plan B). The research tool requirement usually involves specialized study in statistics and research or demonstration of ability to read French.

Specialist in Education Degree (Vocational Home Economics major):

See Department of Secondary Education.

Graduate Courses in Home Economics and Family Living

531 Cultural Patterns of Dress. 3 hours.

Prerequisites: HEFL 132 and 431 or consent of instructor.

An in-depth analysis of literature and research related to cultural aspects of clothing. Specific cultural emphasis will vary. (Lecture, field trips)

533 Developing Fashion Merchandising Programs. 3 hours.

Prerequisite: HEFL 333 or consent of instructor. The 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.

Use of qualitative and quantitative techniques for physical and chemical analysis of textiles. Experience in planning and conducting textile analyses and in evaluating resulting data. (Lecture, lab)

536 Seminar in Textiles and Clothing. 3 hours.

Prerequisite: Consent of instructor.

Opportunity for students to survey technological, cultural, and educational developments in the textile and clothing field and to focus on clothing, textiles, or merchandising according to the individual interest. Student participation required.

537 Critique and Design of Investigations in Textiles and Clothing. 3 hours.

Prerequisite: Consent of instructor.

Survey and critique 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.

Current curriculum trends in home economics education and curriculum development in specialized fields of home economics are considered.

573 Evaluation in Home Economics Education. 3 hours.

Includes a study of theory and techniques of evaluation in home economics education at different educational levels, analysis and refinements of instruments, interpretation of results of self-evaluation and guidance, and effective administrative programs.

574 Supervision in Home Economics Education. 3 hours.

Prerequisite: Teaching experience, advanced courses, and consent of instructor. Theory, principles and techniques of preservice and inservice training of teachers in home economics with emphasis on preparation of supervisory materials and evaluation.

575 Individual Study in Home Economics Education. 3 to 6 hours.

Includes a comprehensive study and evaluation of home economics investigations now available, and the experiences of planning and completing an individual study of limited scope.

576 Theories of Child Development. 3 hours.

Prerequisite: Undergraduate course in child psychology, child development, or human growth and development.

Intensive and critical analyses of cognitive, social-learning, maturational, and psychoanalytic theories of human development.

577 Seminar in Child Development Research. 3 hours.

Prerequisite: HEFL 576 or equivalent preparation. An analysis of current theories and research findings relevant to the development of social, preceptual-cognitive, and physical-physiological processes in children.

578 Seminar in Research in Marital and Family Therapy. 3 hours.

Prerequisite: An undergraduate course in marriage and the family taught in home economics, educational psychology, or sociology.

Presentation and discussion of contemporary research being conducted by marital and family investigators in the fields of anthropology, biology, psychiatry, psychology, and sociology. Stress is placed upon the critical examination of existing field and laboratory studies.

579 Professional Theories and Methods in Marital and Family Therapy. 3 hours.

Prerequisite: Consent of department head. Restricted to graduate students in: (1) the clinical program in child development and family living; or (2) the disciplines of psychology, social work, or pastoral care.

Lectures and demonstrations of contemporary theories and methods of treating couples, families, and groups who are experiencing dysfunctional family life. The contributions of Freud, Rogers, Satir, Wolpe, Ellis, and Adler are among those examined.

580 Internship in Marital and Family Therapy. 3 hours.

Prerequisite: HEFL 579.

Counseling experience with spouses and/or families is provided for degree candidates during the final semester of enrollment. Assignments are made to approved private and public agencies.

HOME ECONOMICS AND FAMILY LIVING

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

422G Textile Design II. 3 hours.

Prerequisites: HEFL 120 and 221 or equivalent, or consent of instructor.

A study of historic and contemporary designs. Experimentation in design and color as applied to costume, home furnishings, and accessories. (Lecture, lab)

425G History of Costume. 3 hours.

Prerequisite: Consent of instructor.

Costumes from ancient times to present day; cultural and economic factors. (Lecture)

428G Merchandise Display and Promotion. 3 hours.

Application of principles and practices in arranging and displaying merchandise for commercial and educational purposes; planning and executing sales promotions. Actual experiences. (Lecture, lab, field trips)

430G Historic Textiles. 3 hours.

Prerequisite: HEFL 231.

A study of decorative fabrics and the history of textile design from ancient times through contemporary productions.

431G Clothing and Human Behavior. 3 hours.

Prerequisites: 9 hours of social science or consent of instructor. A study of dress and adornment as related to human behavior.

432G Recent Developments in Textiles. 3 hours.

New developments in textile field as reported in current literature. (Lecture)

433G Fashion Fundamentals. 3 hours.

Fashion as a social force. How the fashion world works: designers, leading markets, fashion cycles.

434G Advanced Clothing: Tailoring. 3 hours.

Prerequisite: HEFL 130.

Advanced techniques of tailoring are applied in construction of tailored garments. (Lecture, lab)

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. (Lecture, lab)

436G Advanced Clothing Design. 3 hours.

Prerequisite: HEFL 130 or consent of instructor. Involves interpretation and development of orig-

inal designs through the media of flat pattern and draping. (Lecture, lab)

437G Fashion and Design Study Tour. 3 hours.

Prerequisite: Consent of instructor.

Travel to fashion and design centers to gain first-hand knowledge concerning design, production, marketing and promotion of textiles, clothing and home furnishings.

438G Textile and Clothing Merchandising II. 3 hours.

Prerequisite: HEFL 333.

The study and application of principles, techniques, and practices of effective fashion merchandising. Includes problems in store design and display, supervision of retail establishment, and fashion merchandising.

439G Internship: Merchandising. 3 hours.

Prerequisite: Consent of instructor, major in Textiles and Clothing or Interior Design.

Includes 8 weeks of supervised experience in an appropriate establishment in the area of textiles and clothing or interior design.

461G Advances in Science of Nutrition. 3 hours.

Individual study of past and recent literature and research concerned with foods and nutrition for various age groups and peoples. (Lecture)

464G Advanced Foods. 3 hours.

Prerequisites: HEFL 261, Chemistry 107, or consent of instructor. Biology 207 recommended. Chemical, physical, and microbiological factors related to the behavior and characteristics of foods. (Lecture, lab)

465G Diet Therapy. 3 hours.

Prerequisites: HEFL 363, Biology 472, and Chemistry 309.

Studies application of the principles of nutrition in the treatment of certain organic, functional, and metabolic diseases or conditions. (Lecture, field trips)

466G Experimental Foods. 3 hours.

Prerequisite: HEFL 464, or consent of instructor. A study of ingredients and their function and factors involved in food preparation; evaluation of foods by objective measurements. (Lecture, lab)

491G Family Life Education. 3 hours.

Principles, practices and contents of family life education are taught. Enhances both the knowledge of content and the communication skills of public school and college teachers. Designed for home economics, psychology, sociology, and other teachers of units and/or courses in family life education. Extension agents, social workers, and members of the mental health professions might wish to enroll.

492G Institution Food Preparation. 3 hours.

Prerequisite: HEFL or consent of instructor.

Basic food preparation principles applied to quan-

DEPARTMENT OF LIBRARY SCIENCE

ity food production and services and standardization of recipes and procedures. (Lecture, 1 hour; practicum, 10 hours)

493G Institutional Purchasing. 3 hours.

Prerequisite: HEFL 492.

Considers principles and methods of buying food and supplies for various types of quantity food services, with emphasis on specifications, standards, inventory and factors affecting quality and cost control. (Lecture, field trips)

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. Actual administrative responsibilities under supervision are required. (Lecture, 1 hour; practicum, 10 hours)

495G Organization and Management of School Lunch Service. 3 hours.

Prerequisites: HEFL 390 and 494. Sec. Ed. 280 is recommended.

Organization and management of single and multiple school lunch units, including menu planning, purchasing records, equipment, and meal services. (Lecture, lab, field trips)

496G Menu Planning and Merchandising for the Food and Lodging Industry. 3 hours.

Prerequisite: HEFL 492.

Includes menu planning for various types of group feeding, meeting nutritional needs of the different age levels, portion costs, menu pricing, and merchandising. (Lecture, lab, field trips)

497G Food and Labor Cost Control. 3 hours.

Prerequisite: HEFL 390, principles of accounting, or consent of instructor.

Several aspects of concern to management are studied including work management methods, the relationship of labor costs and merchandising, food cost controls, portion control methods of purchasing and preparation, and application of effective accounting and inventory procedures. (Lecture)

498G Special Topics in Home Economics and Family Living. 1 to 3 hours.

Repeatable. Prerequisite: Approval of the Head of the Department. Investigation of problems selected from: (1) child development and family living; (2) dietetics, foods, nutrition, institution administration; (3) textiles and clothing or interior design; (4) home economics education.

Vera Guthrie, Head**Graduate Faculty**

Professors: V. Guthrie, E. Wassom

Associate Professors: J. Caskey, I. Simpson

Assistant Professor: R. Smith

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 fields of public, academic, and 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 L.S. 401, 402, 406, and 408 or their equivalents. Students lacking the prerequisite courses may take them concurrently with graduate coursework. Applicants who have a grade point average of 3.0 but whose GRE scores fall between 700 and 800 may be admitted. Students having less than the required grade point average may be admitted on a probationary basis.

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 may be met by demonstrating (1) the use of appropriate research techniques or (2) reading proficiency in a modern foreign language.

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.

Elementary Education Curriculum (with Library Science as an 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 re-

LIBRARY SCIENCE

quirements for certification as a public school media librarian.

Secondary Education Curriculum (with Library Science major or minor)

This program is designed to provide coursework for the school librarian, and 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 in that department. The remaining hours will be taken in professional education courses.

Graduate Courses in Library Science

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

Prerequisite: L.S. 401 and/or consent of instructor.

Role of the instructional materials center staff in the instructional process; relating the functions of management to the organization and administration of instructional materials centers; surveys of trends related to IMC. (Fall and alternate summers)

506 Cataloging of Non-Book Materials. 3 hours.

Prerequisite: L.S. 406 or equivalent.

Covers the classification and cataloging of motion pictures, filmstrips, slides, transparencies, phonorecords, pictures, manuscripts, maps, microfilms, kits, etc. (Spring and alternate summers)

508 Advanced Reference. 3 hours.

Prerequisite: L.S. 408 or equivalent.

Reference materials in the humanities, the social sciences, history and area studies, the pure and applied sciences, and some general reference works in bibliography and library science. (Spring and alternate summers)

509 Investigations in Library Science. 3 hours.

Prerequisites: 18 hours of library science, Education 500 or the equivalent, and permission of graduate advisor in Library Science.

An independent investigation, under the direction of a faculty member, of a topic of interest to the student. The student will be expected to combine research methods with background from previous course work to produce a research paper. (Every semester)

515 Government Publications. 3 hours.

Prerequisite: L.S. 408 or equivalent.

Sources, types, and use of government documents, both state and federal, and their acquisition and organization for use. (Each year)

518 History of Children's Literature. 3 hours.

A study of the development of children's literature from the earliest times through the nineteenth century. Outstanding titles, significant writers and

illustrators, publishers, translations, versions and adaptations are considered. (Each year)

520 Seminar in Public Libraries. 3 hours.

Prerequisites: L.S. 401, 406, and 408 or the equivalents.

Development, objectives, governance, populations served, inter-library relations, services offered, public relations, collection, quarters, finances, staffing, and methods of evaluating public libraries in the United States. Field trips may be required. (Alternate years)

530 Seminar in Academic Libraries. 3 hours.

Prerequisites: L.S. 401, 406, and 408 or the equivalents.

The development, objectives, organization and structure, the collections, philosophy of library services, measurement and standards of library effectiveness. Field trips may be required. (Alternate years)

541 Seminar In School Libraries. 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

401G Library Organization and Administration. 3 hours.

Organization and administration of all types of media for access and use; circulation and other library records, maintenance of the media collection, and service to juvenile and adult patrons. Field trips may be required. (Fall and summer)

402G Libraries and Librarianship. 3 hours.

The library as an agency of communication; history of books and libraries; types of libraries; librarianship as a career; and library cooperation. Field trips may be required. (Fall and alternate summers)

403G Books and Related Materials for Young People. 3 hours.

Principles of selection; aids in selection; reading guidance; book talks; materials for information and recreation. Field trips may be required. (Fall and summer)

404G The Library and the Computer. 3 hours.

Examination of basic concepts of computer technology and their application to library problems. (Spring)

406G Classification and Cataloging. 3 hours.

Study of classification, descriptive cataloging, main entries, added entries, shelf list, and filing. Laboratory sessions in all areas covered. (Fall and summer)

407G Literature for Young Adults. 3 hours.

Reading interests of young adults including adult titles, study in depth of several titles. Methods of

working with young adults in public and school libraries. (Spring and alternate summers)

408G Reference and Bibliography. 3 hours.

Study of bibliographies, periodical indexes, indexes to literary forms, biographical dictionaries, dictionaries, encyclopedias, yearbooks, almanacs, directories, atlases and gazetteers, and handbooks. (Fall)

409G Selected Topics in Library Science. 1 to 3 hours.

Prerequisite: Permission of supervising faculty member. Study of a selected problem. (Every semester)

410G Storytelling. 3 hours.

Emphasizes storytelling in work with children. The literature; criteria in selection of materials; practice in oral communication. (Every semester)

The following courses may be taken for either Education or Library Science credit

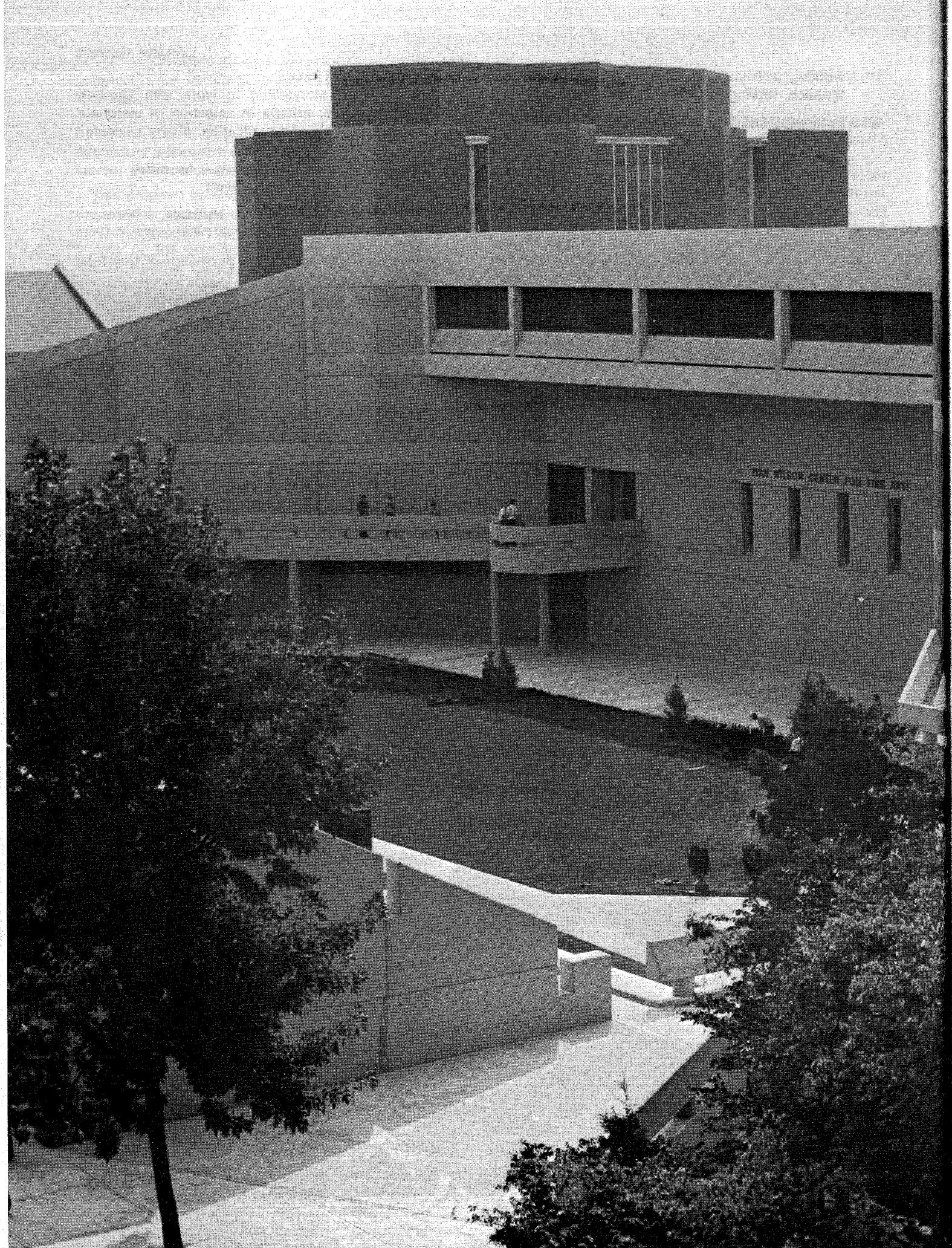
445G Audio-Visual Materials and Methods. 3 hours.

See Department of Elementary Education.

446G Selection, Acquisition and Evaluation of Non-Print Materials. 3 hours.

See Department of Elementary Education.





COLLEGE OF ARTS AND HUMANITIES

DEPARTMENTS

Art
English
Folk and Intercultural Studies
Foreign Languages
History
Mass Communications
Music
Philosophy and Religion
Speech and Theatre

DEGREES OFFERED

Master of Arts (English, Folk Studies, History,
Humanities, Spanish, Speech)
Master of Arts in College Teaching (History,
Spanish)
Master of Music
Specialist in College Teaching (English, History)

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

Art
English
English and Allied Language Arts (major only)
Folk Studies (minor only)
Foreign Languages (German, French, Spanish)
History
Music
Social Science (major only)
Speech

DEPARTMENT OF ART**Walter Stomps, Head****Graduate Faculty**

Professors: E. Monroe, N. Peterie, L. Wallace

Associate Professors: L. Fernandez, C. Forrester,

I. Schieferdecker, W. Stomps, W. Weaver

Assistant Professors: H. Custead, S. Rao

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 in art requires 18 to 21 hours in art and 9 to 12 hours in professional education. The 18-21 hours in art are flexible in distribution to meet student needs. The minor in art 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.**

A study of architecture and sculpture during the Middle Ages with selected individual research problems.

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

In-depth investigations into the history of painting of the Middle Ages. Lecture and independent study.

511 Investigations in Art Education. 3 hours.

Research in art education curriculum and methodology, with emphasis on a thorough study of the literature, including 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), emphasizing 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, clay glaze composition, and research in various phases of the ceramic process.

540 Drawing. 3, 6, or 9 hours.

Prerequisites: Art 440 or 440G, or permission of instructor.

Involves advanced independent study utilizing traditional methods of drawing and encourages the student to employ and investigate new directions.

550 Printmaking. 3, 6, or 9 hours.

Prerequisite: Art 452 or 452G, or permission of instructor.

Involves independent study by utilizing traditional methods of printmaking and encourages the student to investigate new directions in personal expression.

560 Painting. 3, 6, or 9 hours.

Prerequisite: Art 462 or 462G, or permission of instructor.

Deals with the advanced aspects of painting with emphasis on experimentation in different schools of painting and assists the student to find an individual approach to painting.

570 Sculpture. 3, 6, or 9 hours.

Prerequisite: Art 472 or 472G, or permission of instructor.

Advanced independent study and experimentation in sculpture.

580 Weaving. 3, 6, or 9 hours.

Prerequisite: Art 482 or 482G, or permission of instructor.

Advanced individual study of weaving utilizing traditional and experimental techniques; the production of works that have highly individual approaches and are of exhibition quality.

590 Seminar in Contemporary Art. 3 hours.

Prerequisite: Permission of instructor.

Current trends in ceramics, drawing, painting, printmaking, sculpture, weaving and other areas are analyzed and criticized orally as well as in writing.

591 Investigations in Art History. 3 hours.

Prerequisites: Nine hours of art history or permission of instructor.

Varies to provide topics and approaches for meeting special areas of interest. Special emphasis will be given to the traditional periods of art history. Discussions will focus on research topics and presentation of research reports.

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 of 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 ENGLISH

James Heldman, Head

Graduate Faculty

Professors: H. Bowen, J. Heldman, L. Little, G. McCelvey, W. McMahon, W. Wood
 Associate Professors: N. Davis, W. Fridy, D. McMahon, R. Miller, F. Steele, R. Ward
 Assistant Professors: C. Allmon, M. Bruner, J. Flynn, J. Glaser, J. Survant

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

To complete the program, a student must earn a minimum of 24 semester hours of coursework (six of which may be in a related field such as drama, English history, foreign literature, mass media, philosophy, or speech) and write a thesis, which will carry six hours of credit. Courses in the student's program must meet departmental requirements, a list of which is available from the Departmental Graduate Advisor.

The research tool requirement may be met by demonstrating proficiency in a foreign language or by earning 33 graduate hours in English including English 520, which will be designated as the research tool.

An examination over coursework, thesis, and related materials must be completed. Early in the graduate program, the student should obtain from the graduate advisor in English a copy of the Reading List for the M.A. Oral Examination.

Master of Arts in Education (English major or minor)

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, nine to 12 hours in education, and a final examination on courses and related materials specified in the Reading List for the M.A. 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.

Specialist Degree 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 but not 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.

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.

508 Studies in Language Development. 3 hours.

This course is concerned with a study of the nature and function of language, the processes and stages of language learning, and the development of functional language skills.

509 Standard English as a Second Dialect. 3 hours.

This course offers an examination of the differences between standard and nonstandard English, a presentation of second language teaching techniques for speakers of nonstandard English, and a review of the literature on teaching materials for the teaching of the language arts to culturally disadvantaged children.

ENGLISH

- 520 Bibliographical and Methodological Studies in Literature. 3 hours.**
A systematic study of basic bibliography and bibliographical problems; research methods requisite for the M.A. thesis and scholarly publications; and the craft and methodologies of recent critical essays.
- 553 Restoration and Eighteenth Century Drama. 3 hours.**
Careful study of representative plays. Evaluation of influences, movements, and productions. Wide reading and individual study.
- 560 Literary Criticism II. 3 hours.**
A survey of critical theory and practice of the 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. Some readings in the original and some in translation.
- 582 Middle English Literature. 3 hours.**
A generous sampling of non-Chaucerian English literature of the Middle English period. Some attention will be given to the language of the period.
- 583 Shakespeare II. 3 hours.**
Selected comedies and histories studied in depth. Attention given to individual research in literary criticism.
- 585 Milton. 3 hours.**
A general study of John Milton's poetic works with some attention to his prose.
- 587 Wordsworth and Keats. 3 hours.**
A study of the major works of these two writers and an evaluation of their contributions to the Romantic Movement.
- 588 Modern British Poetry. 3 hours.**
This course studies in detail the work of major twentieth century British poets.
- 591 Emerson, Thoreau, and Whitman. 3 hours.**
A study of their selected works, their cultural backgrounds, their contributions, biographical and critical material.
- 592 The Age of Twain and James. 3 hours.**
A study of realism and naturalism in American literature with special emphasis on Twain and James and their contemporaries.
- 593 Poe, Hawthorne, and Melville. 3 hours.**
A study of their selected works, their cultural backgrounds, their contributions, biographical and critical material.
- 594 Contemporary Fiction. 3 hours.**
A study of selected major figures and their works. Consideration of movements, influences, developments since 1900.

- 596 Seminar in American Writers. 3 hours.**
This is an intensive course dealing with a small group of writers, or perhaps one major writer. It will vary in content from time to time according to the instructor assigned and the apparent needs of the students.
- 597 Investigations in English. 2 or 3 hours.**
An intensive review of articles in professional journals dealing with certain problems relative to the teaching of English.
- 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.**
- 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.
- 404G The History of the English Language. 3 hours.**
A study of the origin and development of the English language with emphasis on phonetic and grammatical changes.
- 405G Phonetics. 3 hours.**
A study of speech sounds, their production and their acoustic properties.
- 406G American Dialects. 3 hours.**
A study of regional and social variations in American English, causes of these variations, and directions of change.
- 407G Descriptive Linguistics. 3 hours.**
This course provides a study of language in terms of its internal structures. It particularly concerns itself with the characteristic features of oral language. Some attention is given to theoretical developments.
- 455G American Drama. 3 hours.**
See Department of Speech and Theatre.
- 456G Elizabethan Drama. 3 hours.**
See Department of Speech and Theatre.
- 458G Modern British Novel. 3 hours.**
A study of the techniques and rationale in representative works of major British novelists from Joseph Conrad to the present, with attention also given to the intellectual climate of the period.
- 459G Modern Drama.**
See Department of Speech and Theatre.
- 460G Literary Criticism I. 3 hours.**
A survey of the critical theory and practice of the significant literary critics of the Western world.

FOLK AND INTERCULTURAL STUDIES

494G Kentucky Literature. 3 hours.

A survey of literary people and places in Kentucky, including a detailed study of several works of Kentucky writers.

495G Southern Literature. 3 hours.

This course will cover major, minor, and so-called "regional" writers of the South.

496G Comparative Literature. 3 hours.

A study of a body of foreign literature, focusing on genres or themes in comparison to English or American literature.

481G Chaucer. 3 hours.

Representative works of Chaucer; backgrounds; outside readings and reports.

482G Shakespeare I. 3 hours.

Selected major Shakespearean plays are 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, with a study of representative exponents of the Romantic Movement.

485G The Seventeenth Century. 3 hours.

The concentrated study of the seventeenth century literature, forms, and developments.

486G The Eighteenth Century. 3 hours.

The concentrated study of the eighteenth century literature, forms, and developments.

487G Victorian Prose. 3 hours.

The major prose writers of the Victorian period with sufficient study of political, social, and economic movements to show the interrelationships between the culture of the era and its literature.

488G Victorian Poetry. 3 hours.

The major poets of the Victorian period with sufficient study of political, social, and economic movements to show the interrelationships between the culture of the era and its literature.

489G The English Novel. 3 hours.

The 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 are studied. Several representative novels studied.

493G Major American Poets. 3 hours.

This course is a careful study of the major poems, the styles, and the poetic intent of the most important American poets from Poe to the present.

DEPARTMENT OF FOLK AND INTERCULTURAL STUDIES

Lynwood Montell, Head

Graduate Faculty

Professors: K. Clarke, L. Montell

Associate Professors: J. Crowe, J. Miller, A. Petersen

Degrees Offered: Master of Arts in Folk Studies; Master of Arts in Education (Folk Studies minor)

Master of Arts in Folk Studies

This interdisciplinary graduate program is designed for students who desire to teach at the college level; for teachers who desire to add new vistas to public school classroom instruction in the arts, humanities, and social sciences; as enrichment for school administrators and for persons interested in public service employment in such areas as recreation, welfare and social work; for persons who desire to continue their education on a personal or a vocational basis; and for students who expect to pursue doctoral studies at another institution.

Since folklore deals with the entire traditional culture of man, 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.

Minimum requirements of the program consist of 12 hours of folklore at the 500 level, including Folk Studies 577 and 578, 12 additional hours of folklore or selected courses in related disciplines, and the thesis. An extended, fully documented collection project may be completed in lieu of the thesis.

FOLK AND INTERCULTURAL STUDIES

The research tool requirement may be met by demonstrating proficiency in a foreign language or by earning 33 graduate hours in folk studies, including Folk Studies 578 as the research tool for non-credit. The student must also pass a comprehensive written examination.

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

570 Appalachian Folklore and Folklife. 3 hours.

A study of the folklife and culture of the Upland South, with emphasis on verbal and material traditions. Includes a cursory investigation of the Ozark region.

571 Oral Literature of the North American Indians. 3 hours.

Myths, tales, poems, and orations of selected North American Indian tribes surveyed within the perspectives of various phases of collection and study.

572 Applied Folklore. 3 hours.

The utilization of folkloristic theoretical concepts and methodologies in application-oriented research with emphasis on social, medical, governmental, and educational programs, historical reconstructions, filmmaking, and relationships with other applied disciplines. Special consideration will be given to such topics as ethics and data interpretation.

573 Seminar in Interpretation of Myth. 3 hours.

Investigation of the principal contemporary modes of research and interpretation of myth.

576 American Traditional Song. 3 hours.

An interdisciplinary consideration of regional and social variation in interpersonal communication in the United States. Topics covered include language and culture, body language, and the use of space as communication along with conventional methods of dialect study.

577 Techniques and Materials in Folklore Studies. 3 hours.

A course dealing with recent folklore theories, ethnographic procedures, field collection of folklore and folklife, identification and documentation procedures necessary in the preparation of folkloristic materials for archiving and studying.

578 Folklore and Folklife Research. 3 hours.

Prerequisite: Folk Studies 577.

An interdisciplinary consideration of diverse topics related to fieldwork and research in folklore and folklife. Problem statement, advance preparation, interviewing techniques, documentation of data, etc. are included.

579 Directed Study and Research in Folklore. 3 hours.

Prerequisite: Folk Studies 578 or demonstrated ability to work independently.

A qualified student may study a particular area in depth under the direction of a member of the folklore faculty. The student meets with his faculty director at prearranged times to discuss readings, research, or field project. (Same as Anthropology 579.)

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

406G American Dialects. 3 hours.

An interdisciplinary consideration of regional and social variation in interpersonal communication in the United States. Topics covered include language and culture, body language, and the use of space as communication along with conventional methods of dialect study.

462G Folk Medicine. 3 hours.

A study of historical circumstances, associations, and logic of traditional non-scientific medical practices.

470G Museum Procedures and Preservation Techniques. 3 hours.

This course is designed to deal with essential aspects of museums in particular and preservation in general, i.e., collecting, preserving, researching, exhibiting, and interpreting material culture.

476G The Ballad. 3 hours.

An examination of narrative folksong in the English-speaking world.

477G Folk Art and Technology. 3 hours.

A study of folklife research and selected world culture groups, with emphasis on folk crafts, technology, and architecture in the United States prior to their absorption into industrialization. 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 to discern the various aspects of folklore reflected there and to determine the degree to which unwritten literature has affected origins and development of written literature.

Interdisciplinary Courses Recommended for Graduate Students in Folk Studies

Anthropology 440G, Cultural Anthropology; Anthropology 507, Elements of Anthropology; Anthropology 555, Seminar in Anthropological Theory; English 583, Shakespeare II; English 481G, Chaucer; Geography 530, Selected Problems in Cultural Geography; Geography 560, Settlement Geography; Geography 430G, Cultural Geography; Music 439G, Music of the World's Peoples; Sociology 410G, Urban Sociology; Speech and Theatre 541, Seminar in Communication; Speech and Theatre 463G, Intercultural Communication.

DEPARTMENT OF FOREIGN LANGUAGES

C. P. Brown, Head

Graduate Faculty

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

Associate Professors: J. Babcock, T. Baldwin, W. Nolan

Assistant Professors: R. Padilla, W. Walls

Degrees Offered: Spanish — Master of Arts, Master of Arts in College Teaching, 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 is designed to prepare those who wish to teach Spanish on the junior or senior college level, as the initial graduate level preparation for those intending to pursue a doctoral degree, for secondary teachers who desire to meet certification standards with such a program, and for those whose vocational objective requires a high degree of 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

FOREIGN LANGUAGES

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 College Teaching in Spanish

This program is designed especially to prepare students for the teaching of Spanish on the junior or senior college level. In addition to the admission standards for the Master of Arts in Spanish, a commitment to college teaching is required of candidates for this degree program.

A total of 24 semester hours of coursework is required, of which 18 hours must be taken in the field of Hispanic literature and language. 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 of a Spanish-speaking area, professional education, and other fields which clearly relate to the Hispanic interest. At least nine of the required minimum of 18 hours of coursework in Hispanic literature or language and three of the additional six hours must be 500-level or above.

A course in foreign language materials and methods or its equivalent is required. If the student has not previously completed such course, he/she may enroll in it for graduate credit and take it concurrently with the required period of supervised teaching.

If the student elects the thesis to complete the 30 hours required for the degree, the topic must be approved by the student's advisor and the head of the department. If the student elects to do additional coursework in Hispanic literature or language in lieu of writing a thesis, three hours must be at the 500-level or above.

The student must do supervised college teaching under the direction of a member of the Department of Foreign Languages. An examination over coursework and the thesis, if elected, must be completed. Prior to taking the final examination the student must meet the research tool requirement.

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 Span-

FOREIGN LANGUAGES

ish 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

520 Seminar in French Literature or Language. 3 hours.

524 Nineteenth Century French Novel. 3 hours.

526 Modern French Poetry. 3 hours.

529 Seminar in French Literature. 3 hours.

590 Comparative Romance Linguistics. 3 hours.

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.

A study of prose fiction, drama and poetry in Spain during the period 1479 to 1635.

572 Nineteenth Century Literature. 3 hours.

A survey of the novel, drama and poetry in nineteenth century Spanish literature.

575 Twentieth Century Prose. 3 hours.

A study of the novel and the essay of the Generation of '98 and of the novel of the post-civil war period in Spain.

576 Twentieth Century Poetry and Drama. 3 hours.

A study of the drama of Spain from the Generation of '98 through the contemporary period with emphasis on Jacinto Benavente and Garcia Lorca. Poetry is studied beginning with the Modernists through the contemporary period, with emphasis on Juan Ramon Jimenez, Antonio 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: French 320.

Creative self-expression in written French, refinement of grammatical understanding, introduction to the art of translation, and an examination of selected texts to study stylistic devices.

421G Advanced French Conversation. 3 hours.

Prerequisite: French 321.

Free classroom discussion on assigned topics and reports on newspaper and magazine articles of current interest. Special attention will be paid to idiomatic expression.

422G History of the French Language. 3 hours.

Prerequisite: French 221.

A linguistic study of the phonological, morphological, syntactic, and lexical changes which turned the Latin spoken in Gaul into modern standard French. No previous training in linguistics is necessary.

423G Seventeenth Century French Literature. 3 hours.

Prerequisite: French 325.

A study of French 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: French 325.

A study of Romantic, Realistic, and Naturalistic trends in French literature of the nineteenth century, as exemplified in the novel.

426G Twentieth Century French Drama. 3 hours.

Prerequisite: French 325.

A study of twentieth century French theater, including principal authors and works, directors, and main currents.

427G Twentieth Century French Novel. 3 hours.

Prerequisite: French 326.

A study of the French novel in this century (includes reading novels by Proust, Gide, Mauriac, Aymé, Camus, and Robbe-Grillet).

429G Studies in French Literature or Language.

3 hours.

Prerequisite: Topic of study selected in consultation with assigned instructor (may include literature or language). May be repeated once.

German

430G Advanced Written German. 3 hours.

Prerequisite: German 330.

Develops sense of style in selection of vocabulary and sentence structure appropriate to letters, reports, essays and descriptions.

HISTORY

431G Advanced Spoken German. 3 hours.

Prerequisite: German 331.

Intensive practical in oral German with the aim of enabling the student to discuss literary, cultural, and political topics.

432G History of the German Language. 3 hours.

Prerequisite: German 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: German 334.

An overview of the major writers of Romanticism, Biedermeier, and Realism with emphasis on prose and drama.

435G Twentieth Century German Literature. 3 hours.

Prerequisite: German 334.

A study of the major German, Austrian and Swiss writers of the twentieth century with emphasis on prose and drama.

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

Prerequisite: German 334.

A study of 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: German 334.

A study of 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.

Russian

464G Nineteenth Century Russian Literature. 3 hours.

Prerequisite: Russian 261.

Social and artistic trends in Russian life as reflected in works of Pushkin, Lermontov, Gogol, Turgenev, Tolstoy, Dostoevsky and Chekov. Lectures and discussions mostly in Russian.

465G Soviet Literature. 3 hours.

Prerequisite: Russian 261.

Major fiction writers and literary trends since 1917. Lectures, readings and reports.

469G Studies in Russian Literature or Language. 3 hours.

Prerequisite: Russian 261 or equivalent.

May be repeated once.

496G Russian Literature in Translation. 3 hours.

Prerequisite: Russian 261 or equivalent.

Selected works of major Russian authors.

Spanish

470G Advanced Oral Spanish. 3 hours.

Prerequisite: Spanish 370.

Conversation units, dramatic sketches, original oral topics.

471G Advanced Spanish Syntax. 3 hours.

Prerequisite: Spanish 371.

Examination of selected literary works; original compositions on selected topics.

472G Background of Modern Spanish. 3 hours.

Prerequisite: Spanish 371.

A general history of the Spanish language, stressing the development of sounds and forms, word borrowings and changes in meanings.

475G Literature of Spain I. 3 hours.

Prerequisite: Spanish 374.

A survey of peninsular Spanish literature from the beginnings through the 17th Century. Readings, reports.

476G Literature of Spain II. 3 hours.

Prerequisite: Spanish 374.

A survey of peninsular Spanish literature from the 18th Century to the present. Readings, reports.

477G Spanish American Literature. 3 hours.

A survey of 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

Richard Troutman, Head

Graduate Faculty

Professors: J. Bennett, J. Calloway, J. C. Crowe, L. Harrison, C. Jackson, M. Lucas, J. Minton, J. Thacker, R. Troutman

Associate Professors: C. Crowe, D. Harrington, F. Murphy, F. Thompson

Assistant Professor: R. Stone

Degrees Offered: Master of Arts in History, Master of

HISTORY

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

A person pursuing a graduate degree with either a major or a minor 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.

A minimum of 24 hours of coursework, including History 435G — European Historiography — (unless previously taken), and the thesis are required. The ability to use a modern foreign language must be demonstrated. A final examination over courses, thesis, 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.

Master of Arts in College Teaching

The purpose of the program is to prepare individuals for teaching history at the community and junior college levels. In addition to academic preparation, emphasis is also placed on preparation for the actual classroom situation.

Requirements for admission to the MACT program are the same as for admission to the Master of Arts in History program. The required minimum of 30 hours is chosen with the approval of the student's advisor and must include nine hours in European history, nine hours in American history, three hours in historiography (unless previously taken), and three hours in seminar in college teaching. The remaining hours are taken in approved electives.

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.

A three hour practicum in college teaching is required unless the student has already taken History 640 (Seminar in College Teaching) in the Master of Arts in College Teaching program.

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, this course acquaints the student with the general trends and factors in American life. (On demand)

501 European History for Secondary Teachers.

3 hours.

An overview of European history with special emphasis on bibliography, documents, historical interpretations and materials that are deemed useful for secondary teachers of history. (Summer and on demand)

502 United States History for Secondary Teachers.

3 hours.

An overview of United States history with special emphasis on bibliography, documents, historical interpretations and materials deemed useful for secondary teachers of history. (Summer and on demand)

515 Nineteenth Century Britain. 3 hours.

(On demand)

- 521 United States 1900-1945. 3 hours.**
(On demand)
- 525 Social and Intellectual History of the U.S.: Nineteenth Century. 3 hours.**
(Fall)
- 526 Social and Intellectual History of the U.S.: Twentieth Century. 3 hours.**
(Spring)
- 527 Social and Intellectual History of Europe: Nineteenth Century. 3 hours.**
(Fall)
- 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 for credit. (On demand)
- 606 Seminar in European History. 3 hours.**
Problems will be developed around a limited central theme. A graduate seminar in such diverse areas as the Middle Ages, the Renaissance, and the Reformation. May be repeated once for credit. (On demand)
- 619 Seminar in United States Diplomatic Relations. 3 hours.**
A study of American foreign policy in the periods 1914-45 and 1945 to the present. May be repeated once for credit. (On demand)
- 622 Seminar in Western United States History. 3 hours.**
May be repeated once for credit. (On demand)
- 630 Seminar in United States History. 3 hours.**
Problems will be developed around a limited central theme. A 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 for credit. (Spring)
- 631 Seminar in Kentucky History. 3 hours.**
(Fall)
- 640 Seminar in College Teaching. 3 hours.**
Designed to acquaint the student with the college teaching situation with emphasis on course organization, lecture preparation, professional development, ethics, testing procedures, and library development. (On demand)
- 699 Specialist Project. 6 hours.**
- 699c Maintaining Matriculation. 1 to 6 hours.**
- The following 400-level courses may be taken for graduate credit**
- 417G The Age of the Renaissance. 3 hours.**
(Fall)
- 418G The Age of the Reformation. 3 hours.**
(Spring)
- 419G Tudor-Stuart England. 3 hours.**
(Fall)
- 422G The French Revolution and Napoleonic Era. 3 hours.**
(Spring)
- 425G Modern Germany. 3 hours.**
(Fall of odd-numbered years)
- 426G The Middle East in Modern Times. 3 hours.**
(Fall)
- 428G England Since 1914. 3 hours.**
(Fall)
- 435G European Historiography. 3 hours.**
(Spring)
- 438G Twentieth Century Russia. 3 hours.**
(Spring)
- 440G Colonial History of the United States. 3 hours.**
(Fall)
- 441G The Formative Period, 1776-1815. 3 hours.**
(Spring)
- 442G The Jacksonian Era, 1815-1850. 3 hours.**
(Fall)
- 443G Civil War and Reconstruction, 1850-1877. 3 hours.**
(Every semester)
- 444G The United States, 1870-1900. 3 hours.**
(Every semester)
- 450G Diplomatic History of the United States to 1900. 3 hours.**
(Fall)
- 451G Diplomatic History of the United States Since 1898. 3 hours.**
(Spring)
- 452G Urban History. 3 hours.**
(Fall)
- 455G American Historiography. 3 hours.**
(Fall)
- 457G The Old South. 3 hours.**
(Fall)
- 458G The New South. 3 hours.**
(Spring)
- 459G The Immigrant in American History. 3 hours.**
(Spring)
- 461G The Far East. 3 hours.**
A survey with major emphasis on China, Japan and India in the twentieth century. (Spring)
- 464G Latin America and the United States. 3 hours.**
(Spring)

DEPARTMENT OF MASS COMMUNICATIONS

James W. Wesolowski, Head

Graduate Faculty

Associate Professor: J. Wesolowski

A graduate program is not offered by the Department of Mass Communications. However, students in other departmental programs may elect a limited amount of mass communications coursework to be applied to their graduate studies.

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

403G Mass Media in the Schools. 3 hours.

A course for school teachers of mass communication, journalism, or broadcasting — entire courses or units within courses—and for advisors to school newspapers or broadcasting facilities. Designed to familiarize teachers at all levels with the processes and problems of the mass media in our nation, the responsibilities of advisors to school publications and broadcasting facilities and the materials and resources available to support mass communication instructional programs.

409G Problems in Mass Communication. 3 hours.

(May be taken twice.)

Individualized research, management, production or other projects in any of the fields of mass communication activities, including supervised internship with professional media operations.



DEPARTMENT OF MUSIC

Wayne Hobbs, Head

Graduate Faculty

Professors: H. Carpenter, E. Pease

Associate Professors: K. Campbell, W. Hobbs,
D. Livingston, T. Watson

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, a student pursuing this program must have a Bachelor's degree in music with a grade point average in music subjects of not less than 3.0. In addition the individual must demonstrate skills and capacities by examination in music theory, music literature, and in the chosen area of performance.

Included in the required 30 hours are 15 hours in the performance area; 12 hours selected from music literature, theory, composition, orchestration, or music psychology; and three elective hours. At least one course is required in both music literature and in music theory.

The program has no foreign language requirement. Voice majors, however, are required to demonstrate ability to sing in English and three foreign languages. Any deficiency in this area may require extra coursework. In lieu of a thesis, a full length public recital is required.

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.**
An investigation of pedagogical problems in a specific performance area of music.
- 511 Investigations in Music Education. 3 hours.**
A study of the problems and methods of research in music education. Includes the application of pure and action research to given situations and the investigation of published research in music education.
- 513 Directed Individual Study. 3 hours.**
Research projects in music education on an individual basis.
- 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.**
An investigation of current trend in educational thought and the implications for administration, instruction and evaluation public school instrumental music.
- 530 Music Literature. 3 hours.**
An investigation of a specialized area not covered in other music literature courses.
- 531 Medieval and Renaissance Music. 3 hours.**
- 533 Twentieth Century Music. 3 hours.**
A survey of the literature of small instrumental groups.
- 538 Directed Individual Study. 3 hours.**
Supervised private research culminating in a scholarly paper.
- 539 Piano Literature. 3 hours.**
- 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.
A course in Sixteenth Century polyphony.
- 403G Counterpart 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.****419G History and Philosophy of Music in American Schools. 3 hours.**

The development and philosophy of music in American schools.

430G Music Literature. 2 to 3 hours.

A survey embracing music of several periods, styles, and forms.

431G Medieval and Renaissance Music. 2 to 3 hours.**432G The Symphony. 2 to 3 hours.****433G Twentieth Century Music. 2 to 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 Piano. 2 hours.****451G Voice. 2 hours.****453G Strings. 2 hours.****454G Organ. 2 hours.****455G Woodwinds. 2 hours.****456G Brasses. 2 hours.****457G Percussion. 2 hours.****458G Harp. 2 hours.**

DEPARTMENT OF PHILOSOPHY AND RELIGION

Ronald H. Nash, Head

Graduate Faculty

Professors: W. Lane, R. Mounce, R. Nash, J. Scott
Associate Professors: D. Tuck, R. Veenker
Assistant Professors: M. Howe, R. Johnston,
B. Roberts, J. Spiceland, A. Vos

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.** A basic methodology course which attempts to acquaint the student with various problems and approaches to interdisciplinary study.
- 501 Readings in Philosophy. 3 hours.** An intensive study of selected philosophic classics or readings in a selected area of philosophy. May be repeated for different topics.
- 502 Seminar in Ancient and Medieval Philosophy. 3 hours.** Study of selected topics in ancient and medieval philosophy. May be repeated for different topics.
- 503 Seminar in Modern Philosophy. 3 hours.** Study of selected philosophers or topics in modern philosophy. May be repeated for different topics.
- 504 Seminar in Contemporary Philosophy. 3 hours.** Study of selected philosophers or topics in contemporary philosophy. May be repeated for 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.** A topical seminar examining specific issues in one of the areas of concentration of religious studies. May be repeated for different topics.
- 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.**

SPEECH AND THEATRE

415G Old Testament Themes. 3 hours.

420G The Age of the Apostles. 3 hours.

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.

DEPARTMENT OF SPEECH AND THEATRE

Randall Capps, Head

Graduate Faculty

Professor: R. Capps

Associate Professors: S. Cooke, P. Corts, C. Kell, W. Leonard

Assistant Professors: C. Dodd, R. O'Connor, J. Pearse, L. Ruff, J. Stearns, L. Winn

Degrees Offered: Master of Arts in Speech, Master of Arts in Education (Speech major or minor), Master of Arts in Education (Theatre minor)

Master of Arts in Speech

The 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 speech would be helpful. To pursue a graduate degree in speech a student must be eligible for admission to the Graduate College and must have at least an 18-hour minor, or the equivalent, in speech.

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

The program provides maximum flexibility to students pursuing the degree. Courses are organized to allow concentration in one of the following areas within the department: communication disorders (in cooperation with Brescia College), communication theory, general speech, interpretation, rhetoric and public address, and theatre. Students may, with permission of their advisors, take courses in related departments.

Master of Arts in Education (Speech major or minor; Theatre minor)

Since this program provides graduate coursework in speech or theatre for the public school teacher, the student following it must meet all requirements for standard high school certification. The major in speech requires a minimum of 18 or a maximum of 21 hours in speech. The minor in speech 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 courses.

Graduate Courses in Speech

500 Speech Communication Internship. 3 hours.

Practical experience as a student employed in a speech communication situation. The student will receive on-site guidance from a coordinator within the organization. (Fall, spring, summer)

503 Advanced Diagnostic Procedures in Speech Pathology. 3 hours.

Prerequisite: Speech 481 or 481G and 485 or 485G. An expansion of diagnostic theory and procedures utilized primarily in clinical settings by the certified speech pathologist.

504 Seminar in Language Disorders of Childhood. 3 hours.

Prerequisite: Speech 481 or 481G and 483 or 483G or permission of instructor. A study of language development disorders of children. The characteristics of normal as well as of delayed and disrupted language patterns and their differential diagnosis will be considered.

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

Prerequisite: Speech 481 or 481G. A study of the etiology, diagnosis and management of speech and language dysfunctions associated with cleft palate and cerebral palsy.

506 Dysfluency. 3 hours.

Prerequisite: Speech 481 or 481G. A review of the significant research in the field of dysfluency, including cluttering and stuttering. Special emphasis on etiology and clinical management of all fluency disorders will be considered.

507 Dysphasia. 3 hours.

Prerequisite: Speech 481 or 481G. A study of dysphasia including symptomatology, etiology, differential diagnosis, and training. Primary emphasis will be on adult problems.

508 Voice Disorders. 3 hours.

Prerequisite: Speech 481 or 481G and 484 or 484G.

Introduction to diagnosis and remediation tech-

SPEECH AND THEATRE

- niques of voice disorders in childhood and adulthood. Additionally, this course is a vertical study of the rehabilitation of the laryngectomized client. Special emphasis is placed on the development of esophageal speech or the use of the electro-larynx as a substitute voice.
- 540 Seminar in Rhetoric and Public Address. 3 hours.** Studies in theories of rhetoric through selected writers, periods and topics. The application of rhetorical standards to the speech-making of selected speakers, movements, areas, and periods. May be repeated once with a different topic.
- 541 Seminar in Communication. 3 hours.** Study of selected topics in communication theory. Suggested topics which may be covered: interpersonal communication, symbols in society, paradigms and models in communication theory, field research in communication, studies in political communication, etc. May be repeated once with a different topic.
- 544 History and Theory of Interpretation. 3 hours.** Consideration of the history and development of interpretive theory from ancient times to the present, tracing the use and development of the interpreter's art, with analysis of contemporary principles and practices.
- 545 Seminar in Speech. 3 hours.** The content of the course will vary from semester to semester depending upon the background of the students enrolled. If offered as independent study, the person will have an opportunity to pursue areas in which he has had adequate preparation. If offered as a class, timely topics will be covered.
- 546 Seminar in Forensics. 3 hours.** Seminar in Forensics will include a treatment of the principles and procedures involved in directing the standard forensic events. Events to be discussed are debate, extemporaneous speaking, discussion, original oratory, analysis of a public address. Some attention will be given to 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 those of the twentieth century British and American theorists. Analysis of major figures and works which contributed to that tradition.
- 580 Diagnostic Procedures in Speech Disorders or Identification of Speech Disorders. 1 hour.** A study of the identification of speech disorders. Suggestions will be made as to the type of treatment available for the various types of problems.
- 599 Thesis Research and Writing. 6 hours.**
- 599c Maintaining Matriculation. 1 to 6 hours.**

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

- 405G Phonetics. 3 hours.** A study of speech sounds, their production and their acoustic properties.
- 440G Experimental Studies in Communication. 3 hours.** A study in research design, procedures and reporting with critical examination of experimental studies in various areas of communication. (Fall)
- 441G Advanced Oral Interpretation: Prose. 3 hours.** A study of poetry with an emphasis on differentiation of types of oral performance. (Fall)
- 443G Contemporary Rhetoric and Public Address. 3 hours.** A survey of contemporary theories of rhetoric and persuasion related to public address combined with an analysis of contemporary public address. (Fall, spring)
- 444G Advanced Oral Interpretation: Poetry. 3 hours.** A study of prose fiction (short story, novella, novel) analyzed with an emphasis on point of view, tone and characterization in oral performance. (Spring)
- 445G Research in Speech and Theatre. 3 hours.** A general introduction to research in speech. Normally offered as an independent study course. (Fall, spring, summer)
- 446G Classical Rhetoric. 3 hours.** Greek and Roman theories of rhetoric; Plato, Aristotle, Cicero and Quintillian will be studied. (Spring of even numbered years)
- 447G American Public Address. 3 hours.** A careful study and evaluation of selected speakers from American history. (Spring)
- 449G Speech Development. 3 hours.** Emphasis will be placed on speech as a teaching tool. Minor problems in voice control, articulation and pronunciation will be studied.
- 461G Organization Communication. 3 hours.** A theoretical examination of rhetorical principles operant in modern organizational communication systems. (Fall or on demand)
- 463G Intercultural Communication. 3 hours.** To create an understanding of dimensions of communication theory that apply across cultural boundaries. (Fall)
- 481G Introduction to Speech Pathology. 3 hours.** An introduction to the field of speech pathology dealing with the development of speech and language, the cause and treatment of the simpler deviations from normal speech and language. The course will deal with identification of the more common speech problems and suggestions for the remedy of those problems. (Fall)

SPEECH AND THEATRE

482G Audiology. 3 hours.

A review of the anatomy of hearing, the causes of loss of hearing and an introduction to the methods of testing, analysis and rehabilitation of people of all ages with hearing loss. (Spring)

483G Speech Anatomy and Physiology. 3 hours.

Designed to help students identify the structures and functions which comprise the speech mechanism. The relation of this mechanism to the production and development of speech and language will be treated. (Spring)

484G Articulation Disorders. 3 hours.

A study of the etiology, evaluation and management of articulatory disorders in children and adults.

490G Clinical Practicum in Speech. 3 hours.

Supervised clinical experience, including experience with individual and group therapy. (Fall, spring)

Graduate Courses in Theatre

550 Seminar in Theatre. 3 hours.

The course is designed to give graduate students the opportunity to further their experience in theatre through research and application. Students select for investigation interpretative, technical, or promotional problems according to their interests.

552 Dramatic Theory and Criticism. 3 hours.

Study of the theories and practices within the theatre from Aristotle to present, establishing criteria for critical analysis.

553 Restoration and Eighteenth Century Drama. 3 hours.

Careful study of representative plays. Evaluation of influences, movements, and productions. Wide reading and individual study.

583 Shakespeare II. 3 hours.

(See English 583)

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

450G Readers Theatre. 3 hours.

Prerequisite: Speech 349 or permission of instructor.

A study of varied methods of group oral interpretation of literature with emphasis upon the short story, poetry, and drama. The course will include analysis of literature, preparation of Readers Theatre and Chamber Theatre scripts and performance in class projects. (Spring, summer on demand)

452G Stage Lighting. 3 hours.

Lighting equipment is demonstrated and the student is provided practical experience in working with lights for the major productions, at a time

other than the class period. Each student will design the lighting for a full length play. (Spring)

454G Theatre Management. 3 hours.

A basic study of the principles of management applied to fields of theatre operation, production preparation and performance. (Spring of even numbered years)

455G American Drama. 3 hours.

This course deals with the development of American drama from colonial production of British plays and American adaptations of such plays to its present position in literature. The course provides an over-view of American drama as well as obtaining a study in depth of the works of the major American playwrights of the past forty years.

456G Elizabethan Drama. 3 hours.

An intensive study of the immediate predecessors and contemporaries of Shakespeare. (Spring)

458G Theatre Practicum. 3 hours.

Reading of plays and dramatic materials; study of various staging methods; choosing of script for production; prompt script with analysis of director's research; individual interpretation and production plans; final production. (Fall, spring, summer)

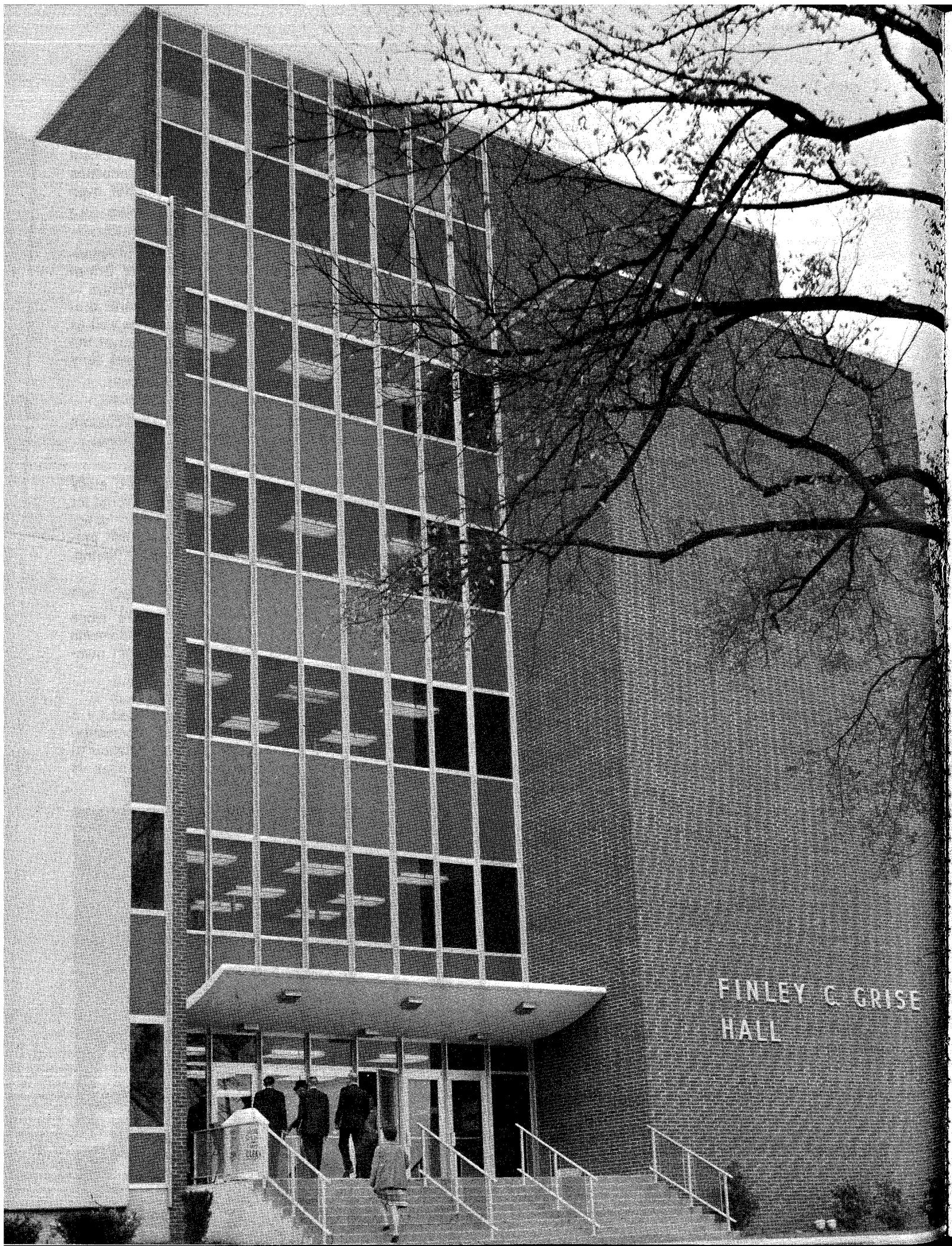
459G Modern Drama. 3 hours.

A selected study of dramatic literature since Ibsen with emphasis on evolving developments and trends in world theatre. (Fall of even numbered years)

499G Studies in British Theatre. 3 hours.

A study of the British theatre highlighted by a hour of England and the viewing of representative plays of the English theatre. Visitation to supplementary historical and cultural sites is included.





FINLEY C. GRISE
HALL

COLLEGE OF BUSINESS AND PUBLIC AFFAIRS

DEPARTMENTS

Accounting
Business Administration
Business Education and Office Administration
Economics
Government
Public Service Institute
Sociology and Anthropology

DEGREES OFFERED

Master of Arts (Economics, Government, Sociology)
Master of Business Administration
Master of Public Service
(Public Administration, Regional Planning)

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

Business Education and Office Administration
Economics
Government
Social Science Area (major only)
Sociology (minor only)

DEPARTMENT OF ACCOUNTING

Charles T. Hays, Head

Graduate Faculty

Professor: C. Hays
Associate Professor: J. Hall

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.

Designed primarily for secondary education teachers of bookkeeping. Provides an updating of terminology and practice in accounting.



560 Controllership. 3 hours.

An examination of the control function in corporate enterprise. Accounting and financial control concepts and techniques as applied to current and long-term assets are emphasized. Control measures for production and marketing decisions are examined in terms of their financial consequences. Risk and uncertainty in the decision-making process are considered briefly.

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

420G Managerial Cost Analysis. 3 hours.

Prerequisite: Accounting 310.

Provides more advanced theories and developments in the area of cost accounting, especially in the area of standard costs, and broadens knowledge in this specialized field.

421G Advanced Tax Accounting. 3 hours.

Prerequisite: Accounting 311.

Forwards the student's understanding and knowledge of the federal tax structure as it applies to the corporation and other specialized areas of taxation. Emphasis is placed upon the use of the tax services in researching tax problems.

422G Advanced Accounting. 3 hours.

Prerequisite: Accounting 219.

Provides the students of accounting with the practice of applying knowledge of accounting theory and techniques acquired in earlier courses of specialized problems in accounting.

423G Advanced Accounting Theory. 3 hours.

Prerequisite: Accounting 218.

Broadens students' concept and understanding of accounting into a meaningful discipline. Emphasis is on current theory and research in accounting.

431G Auditing. 3 hours.

Prerequisite: Accounting 422 or 423.

Provides the student with the basic knowledge of auditing standards and practices and their application in the specialized area of auditing.

DEPARTMENT OF BUSINESS ADMINISTRATION

Robert E. Nelson, Head

Graduate Faculty

Professors: S. Ahmed, E. Evans, J. Herrick
Associate Professors: H. Fletcher, R. Nelson
Assistant Professors: W. Bearden, W. Shanklin

Degree Offered: Master of Business Administration

The 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: $200 \times$ undergraduate g.p.a. + GMAT score

or

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

GMAT registration forms and information bulletins can be obtained by contacting the University Counseling Services Center in the College of Education Building at Western 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 for Economics and Business) and/or Accounting 460 (Financial Statement Analysis) as preparation for the graduate core work. If the undergraduate transcript indicates deficiencies in one or more functional areas of business administration, the departmental advisor may require that the student take undergraduate foundation courses. In addition to the preparatory work, 30 semester hours of approved graduate work, consisting of 24 hours of core courses and 6 hours of electives, 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 consisting of 24 hours of core courses and 6 hours of electives.

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 their 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. 560	Controllership (see description under Accounting).
Bus. Ad. 500	Business, Government, and Law.
Bus. Ad. 510	Organization Theory.
Bus. Ad. 513	Production and Operations Management.
Bus. Ad. 520	Advanced Marketing.
Bus. Ad. 530	Finance and Valuation of Corporations.
Econ. 520	Advanced Microeconomic Theory (see description under Economics).
Econ. 525	Advanced Macroeconomic Theory (see description under Economics).

Graduate Courses in Business Administration**500 Business, Government, and Law. 3 hours.**

An examination of the 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.

A broad survey of the institutional, organizational, and procedures of international business.

510 Organization Theory. 3 hours.

Investigation of analytical concepts and models derived from the classical, behavioral, decision-making, and systems approaches to the study of administrative organization.

511 Management Science I. 3 hours.

Use of calculus in business decisions: matrices and extrema; linear programming and simplex; duality theorems; two phase and big M method; Kuhn-Tucker theorems gradient projection method; quadratic programming; dynamic programming Markov chains; Howard's policy iteration method and Markovian systems.

512 Management Science II. 3 hours.

A study of the basic Markov process, systems analysis of linear processes, systems analysis of

BUSINESS EDUCATION AND OFFICE ADMINISTRATION

- Markov processes, reward structure for discrete-time processes, dynamic programming and semi-Markov decision processes, computer simulation of Markovian system.
- 513 Production and Operations Management. 3 hours.** The course presents an organized body of knowledge concerning the design, operation and control of production systems. It draws upon the mathematical, physical and behavioral sciences in developing generalized decision rules for the integration of men, machines and material into functional systems.
- 520 Advanced Marketing. 3 hours.** Intensive analytical study of important aspects of marketing principles, institutions, policies, and operations. This course presents information from the quantitative and behavioral sciences which is important to understanding the theory, philosophy, and operation of integrated marketing systems.
- 530 Finance and Valuation of Corporations. 3 hours.** An examination of financing policies of corporate entities. Planning the capital structure, measuring and controlling the costs of alternate sources of funds, dividend policy, capital budgeting, and growth through mergers and acquisitions are the topics upon which emphasis is placed.
- 530 Modern Data Processing. 3 hours.** An introduction to the field of electronic data processing, its hardware, languages, and applications.
- 535 Survey of Distribution. 3 hours.** A survey embracing all business activities involved in moving goods from production to consumption. Emphasis is given to developing a philosophy of the role of marketing in the American economy.
- 540W Consumer Financial Problems. 3 hours.** A presentation of eight basic elements of money management and a conceptual relationship of these elements to family units and corporate citizenship.
- 544 Current Problems in Business Education. 2 to 6 hours.** Course to be taught either as independent study, workshops, or in regularly organized classes. Current problems in business education and significant research related to such problems will form the basis of this course.
- 545 Principles of Business Education. 3 hours.** Advanced study of principles, practices, problems and philosophy in business education with special reference to the needs and trends in this field. Topics emphasized include standards, guidance, job placement and follow-up, equipment, supervision and business curricula of the secondary school, the private business school, the junior college, and the collegiate school of business.
- 550 Contemporary Office Administration Problems. 3 hours.** Prerequisite: Business Education 462 or permission of instructor. Examination, in depth, of basic problems in office administration through individual and group analysis and presentation of case problems and current literature; problems areas covered include: office systems analysis and design, office procedures and methods, office cost control, office personnel, office environmental factors, and office automation.

Hollie W. Sharpe, Head

Graduate Faculty

Professors: H. Sharpe, P. Keck
Associate Professors: J. Harrington, C. Ray, K. Utley
Assistant Professor: G. Miller

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

The Department of Business Education and Office Administration 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 Courses in Business Education and Office Administration

- 525 Modern Stenographic Techniques. 3 hours.** Provides symbol shorthand teachers with touch shorthand theory. Teaching methods and development of the basic speed on the Stenograph are also included.
- 575 Administration and Supervision in Business Education. 3 hours.** Study of the roles and functions of administration and supervision in business education on the high school level, city level, and state level, and in colleges and universities. Study of 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.** Methods of report writing. Defining the problem,

ECONOMICS

collecting and organizing information, constructing the report and interpreting the information and presenting of report.

462G Office Management. 3 hours.

Fundamentals of management applied to the administrative services area; the coordination of office services and employees that assist in the achievement of organizational objectives.

463G Records Management. 3 hours.

Designed to develop and operate systems for the retrieval and retention of information and to set forth procedures for the creation, classification, automation and innovation, work measurement and retention and disposition of the various types of written records.

471G Internship in Business and Office Education. 3 hours.

Regular seminars supplemented by on-the-job experience, including a variety of work assignments that demand adaptation of formal academic background to a working business office environment, and culminated by review and analysis seminars.

481G Advanced Business Communications. 3 hours.

Communication theory applied to office management situations. Communication in the administrative process with emphasis on written and oral communication.

495G Independent Study in Data Processing. 1 to 3 hours.

May be repeated.

DEPARTMENT OF ECONOMICS

Kenneth Cann, Head

Graduate Faculty

Professors: K. Cann, R. Yeager

Associate Professors: C. Fost, S. Lile, C. Van Eaton,
J. Wassom

Assistant Professor: R. Pulsinelli

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

The Master of Arts in Economics 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 demonstrating (1) reading proficiency in a foreign language or (2) the use of appropriate research techniques. 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

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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 core area of nine to twelve hours including P.A. 540 — Public Administration (which is required of all).

The remaining hours of the core may be selected from the following courses:

- Econ. 550 Public Sector Economics
- Geog. 580 Problems in Urban Geography
- Govt. 511 Seminar in State and Local Government
- Soc. 565 Studies in the Community
- Psy. 551 Social Psychology of Organizations

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

- Econ. 410G Economics of Government Expenditures
- Econ. 470G Economic Growth and Development
- Econ. 520 Advanced Microeconomic Theory
- Econ. 525 Advanced Macroeconomic Theory
- Econ. 570 Economic 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: Economics 310.

A study of the theoretical aspects of government finance and its influence on public and private decision making. Emphasis is on the impact, incidence, and effects of alternative tax instruments at local, state and federal levels.

502 Seminar in Economic History. 3 hours.

Prerequisite: Consent of instructor.

Concentrated research and writing projects in the economic history of the United States and/or western Europe.

520 Advanced Microeconomic Theory. 3 hours.

Prerequisite: Economics 302 or consent of instructor.

An analysis of advanced topics and the results of recent research in microeconomic theory in the areas of consumer behavior, price and market theory, production, distribution, and welfare.

525 Advanced Macroeconomic Theory. 3 hours.

Prerequisite: Economics 303 or consent of instructor.

An analysis of advanced topics and the result of recent research in macroeconomic theory dealing with consumption, savings, investment, interest, and money.

530 Monetary Theory. 3 hours.

Prerequisite: Economics 300 or 450.

Advanced treatment of classical, neoclassical, Keynesian, and modern quantity theory, and a consideration of the effects of alternative monetary policies on the national economy.

540 Land Economics. 3 hours.

Prerequisite: Consent of instructor.

An analysis of factors determining the allocation and use of land and natural resources with emphasis on the application of economic theory to problems of land use and the determination of land values in rural and urban areas.

550 Public Sector Economics. 3 hours.

Prerequisite: Consent of instructor.

An economics course primarily directed to Master of Public Service students. Major topics are: the economic rationale of government; economic and political theories of collective decision making; budgeting concepts; analysis of major state-local and federal taxes; and fiscal relations among levels of government including revenue-sharing. (Fall)

560 Seminar in Economic Theory. 3 hours.

Prerequisites: Economics 520 and 525.

An intensive study of selected theoretical topics in economics with emphasis on a comparison of recent developments and research findings with conventional propositions.

570 Economic Development. 3 hours.

Prerequisite: Economics 470 or consent of instructor.

A study of the significant economic, social, and institutional factors associated with economic development in the less developed countries, emphasizing the identification of barriers to the development process.

575 Advanced International Economics. 3 hours.

Prerequisites: Economics 302 and 380, or consent of instructor.

The course covers standard (Heckscher-Ohlin) two country, free-trade model and its variants; theory of the effect of tariffs and other forms of

- trade intervention; customs unions; trade and economic growth; balance of payments and the market for foreign exchange; and capital movements and transfer problems.
- 597 Economic Research and Report Writing. 3 hours.**
Prerequisite: Consent of instructor.
Research projects dealing with the evaluation of primary data, and training in the techniques of formal research reporting and writing.
- 598 Directed Studies. 3 hours.**
Prerequisite: Consent of instructor.
An intensive investigation by students of selected economic topics in theory, monetary and fiscal theory and policy, economic development and fluctuations, economic history, economic thought, and other areas.
- 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 Economics of Government Expenditures. 3 hours.**
Prerequisites: Economics 206 and 302.
A detailed examination of various aspects of government spending including such topics as the theory of public expenditures, externalities, voting mechanisms, inter-government aid, budget making, program budgeting and cost-benefit analysis.
- 430G Comparative Economic Organization. 3 hours.**
Prerequisites: Economics 302 and 303, or consent of instructor.
An analysis of the theories underlying different economic systems. Emphasis is placed on the ideological basis for various forms of economic organization, alternate ways of organizing economic activity and actual and potential degrees of accomplishment.
- 440G American Industry: Structure, Performance, and Policy. 3 hours.**
Prerequisites: Economics 302 and 303, or consent of instructor.
A course in applied price theory in which the structure, behavior and performance of American industry is evaluated in the light of public and private social goals. Public policy toward the promotion of competition and the control of monopoly will be examined.
- 450G Central Banking Theory and Monetary Policy. 3 hours.**
Prerequisites: Economics 300 and 303.
A course in applied monetary theory and policy. Emphasis will be placed on the results of modern research and empirical findings.
- 460G Business and Economic Fluctuations. 3 hours.**
Prerequisites: Economics 302 and 303.
A study of the causes, patterns of development and consequences of economic fluctuations in a modern industrialized economy. Emphasis is placed on macroeconomic techniques of cycle analysis to determine the dynamic time path of income, output, and employment.
- 464G Introduction to Mathematical Economics. 3 hours.**
Prerequisites: Economics 302 and 303.
The application of mathematics to economic analysis, covering algebraic and functional relationships, differential and integral calculus, differential and difference equations, matrix algebra, linear programming and game theory.
- 465G Introduction to Econometrics. 3 hours.**
Prerequisite: Economics 306 or consent of instructor.
Presents the use of statistical methods in measuring and testing economic relationships. Emphasizes the use of ordinary least squares in estimating single equation models. Topics included are dummy variables, lagged variables, and such problems as autocorrelation, heteroscedasticity multicollinearity and identification.
- 470G Economic Growth and Development. 3 hours.**
Prerequisites: Economics 302 and 303.
An introduction to the study of the development process especially in the less developed countries. The course considers the basic problems and issues of economic development, economic models used to analyze the development process and planning for development.
- 475G Urban and Regional Economics. 3 hours.**
Prerequisites: Economics 202, 203, and 206, or consent of instructor.
Considers the fundamental economic relationships within and between economic and political units in the United States. Emphasis is on applied economic analysis dealing with the characteristics of a region, the urban center and employment.
- 490G Economic Thought to 1870. 3 hours.**
Prerequisites: Economics 202, 203, and consent of instructor.
The origin and development of economic thought through Marx with emphasis on the contribution of political economy to the behavioral sciences.
- 491G Economic Thought since 1870. 3 hours.**
Prerequisites: Economics 202, 203, and consent of instructor.
The further development of economic thought from the marginalists to the present.

DEPARTMENT OF GOVERNMENT

George S. Masannat, Head

Graduate Faculty

Professors: F. Carroll, C. Chelf, W. Jenkins, T. Madron, G. Masannat, F. Neuber, H. Thomason

Associate Professors: G. Bluhm, E. Kearney, J. Parker, J. Petersen

Assistant Professor: J. Sloan

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

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 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.

Graduate Courses in Government

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.

A study of selected problems at all levels of U.S. Government.

520 Seminar in Public Law. 3 hours.

A systematic exposition, discussion, and analysis of selected concepts and issues in jurisprudence, and/or in administrative, constitutional, and international law.

530 Seminar in Political Theory. 3 hours.

An intensive analysis of selected topics in political theory for graduate students.

550 Seminar in International Relations. 3 hours.

Advanced study, individual and group, of theories and practical applications of international relations in the modern world.

560 Seminar in Comparative Government. 3 hours.

Advanced study and research in the areas of democratic and totalitarian governments.

580 Directed Study. 3 hours.

Faculty guidance of student research and study of 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

401G Methods of Political Inquiry. 3 hours.

Prerequisite: Basic courses in government.

A systematic analysis and description of the logic and procedures necessary for valid political inquiry.

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

Prerequisite: Government 401.

This course is designed to involve students in practical problems of political research. As such, students will be directed through the design and execution of a major field study.

410G Seminar In National Government. 3 hours.

Prerequisite: Government 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 or permission of the instructor.

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

417G Urban Political Systems. 3 hours.

Prerequisite: Government 110 or 210 or permission of instructor.

Analyzes contemporary American urban political systems; focuses on socioeconomic values in

the urban political culture and how they relate to political structures and activities; selected urban problems reviewed.

431G Normative and Empirically-Related Theory. 3 hours.

Prerequisite: One political theory or philosophy course or permission of the instructor.

An analysis of the structure and function of normative (or value) theories, of empirically-related (or scientific) theories and the role they play in the study of politics.

432G Early Political Theory. 3 hours.

Prerequisite: Permission of the instructor.

The development of political ideas in the Western tradition from Plato through Thomas Aquinas. (Fall)

433G Modern Political Theory. 3 hours.

Prerequisite: Government 432 or permission of the instructor.

A continuation of Government 432 from Machiavelli to the present-day theorists. (Spring)

434G Contemporary Political Theory. 3 hours.

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

Selected aspects of contemporary political thought. (Spring)

435G American Political Theory. 3 hours.

Prerequisite: U.S. History — 6 hours.

A study of American political theory from Puritanism to present.

461G Government and Politics of the U.S.S.R. 3 hours.

An analysis of government and politics of the Soviet Union that seeks to explain the rise, sources and nature of communist ideology, institutional character; the theories, structure and functioning of the Communist Party of the Soviet Union. (Spring)

462G Latin American Governments and Politics. 3 hours.

Prerequisites: Government 100 or 110 or permission of the instructor.

A comparative study of basic governmental and political processes in the political systems of Latin America. Emphasis on social and economic problems, political development, leadership recruitment, political instability and change. (Fall)

463G Politics of the Developing Nations. 3 hours.

Prerequisite: Permission of the instructor.

A study of the political culture, processes and problems of nations that have become independent since World War II. (Fall)

465G Middle Eastern Governments and Politics. 3 hours.

Prerequisite: Government 100 or 110 or permission of the instructor.

An analysis of the governmental and political processes of the Middle East with emphasis on Iran, Israel, Turkey and the United Arab Republic. (Fall)

466G Far Eastern Governments and Politics. 3 hours.

Prerequisite: Government 100 or 201 or permission of the instructor.

A study of the emergence of new structures of political power in the Far East, viewed against the background of traditional institutions and in relation to broader processes of social change. (On demand)

468G International Relation of Middle East. 3 hours.

Studies of relations between states in the area and their individual and collective relations with international organizations and with the Soviet and the Western blocks. (Spring)

PUBLIC SERVICE INSTITUTE (PSI)

Vernon Martin, Director

Graduate Faculty

Professors: V. Martin, J. Uveges

Degree Offered: Master of Public Service (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 different option areas. No thesis is required.

Students planning to enter the administration option must seek admission before completing more than 12 hours of coursework. In addition to meeting Graduate College admission requirements, the applicant must submit two letters of recommendation to the Director of the Public Service Institute.

Two choices are offered within the administration option: (1) general administration and (2) urban administration. Students pursuing either choice must complete Public Affairs 540 and six to nine hours selected from the following core courses:

Geography 580 — Problems in Urban Geography
Government 511 — Seminar in State and Local Government

Economics 550 — Public Sector Economics

Sociology 565 — Studies in the Community

Psychology 551 — Social Psychology of Organizations

PUBLIC SERVICE INSTITUTE

The **general administration** program is designed to provide the student with extensive knowledge of administrative procedures, especially those concerned with personnel, public policy formation and implementation, and administrative behavior. In addition to the core requirement, the student is required to complete 18 to 21 hours selected from the following courses:

- Government 403G — Field Studies in Politics
- Government 410G—Seminar in National Government
- Government 411G — Seminar in State and Local Government
- Public Affairs 440G — Public Administration
- Public Affairs 441G — Public Personnel Administration
- Government 510 — Seminar in National Government
- Business Administration 500—Business, Government and Law
- Business Administration 510 — Organization Theory
- Business Administration 511—Management Science I
- Business Administration 512—Management Science II
- Geography 484G—Planning: Theory and Application
- Sociology 575 — Complex Organizations
- Legal Area Studies 424G — Administrative Law
- Government 580 — Directed Studies
- Public Affairs 545 — Public Policy Analysis
- Public Affairs 430G — Governmental Financial Accounting

The **urban administration** program is designed to provide the student with knowledge of administrative procedures and practices, especially those dealing with planning, intergovernmental relations, and administrative behavior in urban settings. In addition to the core requirements, the student is required to complete 18 to 21 hours selected from the following courses (student is responsible for meeting any course prerequisites):

- Government 403G — Field Studies in Politics
- Government 410G—Seminar in National Government
- Government 411G—Seminar in State and Local Government
- Public Affairs 440G — Public Administration
- Government 417G — Urban Political Systems
- Business Administration 510 — Organization Theory
- Sociology 410G — Urban Sociology
- Sociology 575 — Complex Organization
- Geography 480G — Urban Geography
- Government 580 — Directed Studies
- Public Affairs 545 — Public Policy Analysis
- Public Affairs 430G — Governmental Financial Accounting
- Geography 484G—Planning: Theory and Application

Graduate Courses in Public Affairs

540 Seminar in Public Administration. 3 hours.

Discussion and analysis of behavior and problems in public organizations. Explores administrative development in democratic systems from both a structural and behavioral focus. Attempts to develop linkages between societal values and ad-

ministrative practices of public organizations.

545 Seminar in Public Policy Analysis. 3 hours.

Discussion of a variety of theoretical approaches to the analysis of public policy, policy-making, and policy implementation. Application of theoretical approaches to the study of such topics as health and welfare, poverty, education, and urban affairs.

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

430G Governmental Financial Accounting. 3 hours.

A study of the budgeting and accounting processes of local government, providing familiarization with the various state and federal grant and revenue-sharing programs.

440G Public Administration: Basic Theory and Application. 3 hours.

Survey of governmental administration in the U.S. Relates administrative theory to practices in personnel and financial management and behavior; public control and responsibility in administration is examined against changing expectations and administrative roles.

441G Public Personnel Administration. 3 hours.

A systematic survey of public personnel administration in the U.S. Discusses the development of modern personnel systems in the public sector and emphasizes contemporary trends at the state and local level as well as the national level of government.

LEGAL AREA STUDIES

Legal Area Studies does not offer a graduate program, but graduate students in some programs may select coursework from the limited offering in this area.

Courses which may be taken for graduate credit

423G Jurisprudence. 3 hours.

Prerequisite: Two courses in political theory. An analysis and exposition of the nature of law; of the origins, evolutions and characteristics of the common and Roman law systems; of principal schools of legal theory and of the arrangement, methods and processes of the law.

424G Administrative Law. 3 hours.

Prerequisite: Junior standing and permission of instructor.

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

SOCIOLOGY AND ANTHROPOLOGY

including the right, duties and liabilities of public officials, relief against administrative action, jurisdiction, conclusiveness and judicial control.

DEPARTMENT OF SOCIOLOGY AND ANTHROPOLOGY

H. Kirk Dansereau, Head

Graduate Faculty

Professors: F. Baali, K. Dansereau, E. DiBella
(Emeritus), J. Wittman, R. Yokley

Associate Professors: L. Beck, T. Dunn, J. Grimm,
K. Kalab, P. Toups, P. Wozniak

Assistant Professors: E. Bohlander, J. Faine, J. Schock

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 specialized skills for 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:

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

In unusual 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 relaxed or adjusted by approval of the Department Head.

Both Plan A (thesis) and Plan B (non-thesis) are available. Under Plan A, a minimum of 24 hours of coursework and the thesis are required. Students who anticipate future doctoral study are encouraged to pursue Plan A. Under Plan B, a minimum of 36 hours of coursework must be completed. One-fourth of the required hours, exclusive of thesis, may be taken in another field. The same limitation exists for the taking of credits at the 400G level. Exceptions to either of the above must be approved by the Department Head.

Specialization may be directed toward three major areas: (1) criminology and corrections; (2) the sociology of work and work organization; and (3) urban sociology and demography. In addition, programs to satisfy the needs of individual students may be planned in such areas as social psychology, social institutions, and race and cultural relations.

The criminology and corrections emphasis provides professional education for those students interested in careers in the fields of correctional administration, probation and parole, institutional program management, and delinquency control programs. In addition, it provides academic education in criminology with special emphasis on evaluation and research.

The emphasis in the sociology of work and work organization provides the student with specialized training in industrial sociology and manpower research and development. It is designed for the student who plans to pursue a career with industry, government, or foundations in industrial research, human resource development programs, and applied manpower development.

The urban sociology and demography emphasis provides the student with the appropriate knowledge and skills necessary for careers with industry, government, or foundations in the fields of urban affairs, population analysis and forecasting, community development, and urban environment research.

All students enrolled in the program are required to take Sociology 580, 590, and 595. The research tool requirement may be met by demonstrating (1) ability to do scholarly reading 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 within the Department of Sociology and Anthropology 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 the department. In both cases, the remaining hours are taken in professional education courses.

SOCIOLOGY AND ANTHROPOLOGY

Graduate Courses in Sociology

505 Elements of Sociology. 3 hours.

Prerequisite: Graduate standing.

Designed as an advanced first course in basic sociology for the nonsociology graduate student. The conceptual problem of interaction is examined 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 sociology or consent of instructor.

An analysis of the family institution; the impact of modern culture on the family. (Fall and on demand in summer)

530 Seminar in the Sociology of Deviant Behavior.

3 hours.

Prerequisite: Six hours of sociology or consent of instructor.

A systematic overview of selected types of deviant behavior with particular emphasis on criminality, delinquency, drug addiction, and alcoholism. Special attention will be given to current sociological theory and research in the field. (Fall)

545 Seminar in Society, Personality, and Behavior.

3 hours.

Prerequisite: Six hours of sociology or consent of instructor.

The course will focus on the study of inter-personal relations in different situations and from various perspectives. Among the concepts and problems to be considered are attitudes, norms, values; crucial factors in motivation and the actor's definition of the situation. Extensive observation of natural groups and experimental manipulation of arranged groups will provide data for testing specific hypotheses. (Spring)

564 Demography. 3 hours.

Prerequisite: Six hours of sociology or consent of instructor.

An advanced course in the quantity and quality of population. It will consist of a review of the demographic processes such as mortality, fertility and migration, with emphasis on measurements, methods, and analytical techniques. The course will also include a review of important theories and issues in demography. (Spring)

565 Studies in the Community. 3 hours.

Prerequisite: Six hours of sociology or consent of instructor.

Ecological and social concepts of the community; the structure and function of the community. (Fall, spring)

566 Industry and Community. 3 hours.

Prerequisite: Six hours of sociology or consent of instructor.

Analysis of industry in its community context ex-

ploring 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; the interaction of man, machine and colleague group within industrial organization; occupational roles, career patterns, social control within occupation and professions; and the social aspects of industrial conflict. (On demand)

570 Studies of Social Systems. 3 hours.

Prerequisite: Six hours of sociology or consent of instructor.

Use of organizational theory and its application to social systems. (On demand)

572 Seminar in Social Change. 3 hours.

Prerequisite: Six hours of sociology or consent of instructor.

A seminar focusing upon the various approaches to social change and social disorganization as dealt with by the major sociological theorists, both past and present. The origin, nature, consequences, and future outcome of social change and disorganization will be given consideration. (Fall)

575 Complex Organizations. 3 hours.

Prerequisite: Six hours of sociology or consent of instructor.

Analysis of the goals, internal structure, and environmental relations of large organizations. Special emphasis is placed upon the emergence of bureaucracies, competing theoretical frameworks for viewing organizations, and the analysis of organizational change. (Spring)

580 Advanced General Sociology. 3 hours.

Prerequisite: Eighteen hours of sociology.

An overview of sociology presented through an examination of the various sub-disciplines of the field and the most important developments in each. Particular attention will be paid to recent research and theory in the various sub-fields. (Fall)

590 Sociological Research Design and Analysis.

3 hours.

Prerequisite: Eighteen hours of sociology.

The examination of concept definition, model building, and research design appropriate to problem and data, including a review of representative research studies and students' designs. The course will include a schedule of readings, field work, reports, and discussion designed to acquaint the sociology major with advanced social research methodology, techniques, and procedures. (Fall)

595 Seminar in Sociological Theory. 3 hours.

Prerequisite: Eighteen hours of sociology.

An analysis of current sociological theories, including a survey of recent approaches to the con-

struction and application of systematic theoretical models. The course will include a schedule of readings, papers, and discussion designed to give the student a broad knowledge of sociological literature and theory. (Spring)

599 Thesis Research and Writing. 6 hours.

599c Maintaining Matriculation. 1 to 6 hours.

635 Seminar in Family Theory and Analysis. 3 hours.

Prerequisite: Sociology 420, 520, or six hours of graduate level sociology or consent of instructor. An advanced seminar to serve as one of the concluding courses in the graduate sociology series. Major emphasis will be placed upon the basic theoretical and conceptual frameworks which have been used in past analytical studies of the family, as well as the use of these frameworks for current and future analyses. Emphasis will also be given to familiarizing the student with the large body of theoretical and empirical literature which exists on the family. (On demand)

640 Seminar in the Sociology of Work. 3 hours.

Prerequisite: Sociology 346, 445, 450, 566, 575, or consent of instructor.

An advanced seminar which considers the meaning of work and its social import in contemporary society. Work is viewed through the theoretical framework of a social system, and attention is accordingly given to the constituent structural components of work as well as the inherent systemic linkages. Special emphasis is devoted to the integration of sociological theories of work and the procedures used in the sociological analysis of work. (On demand)

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

400G Juvenile Delinquency. 3 hours.

Prerequisite: Sociology 365 or consent of instructor.

Optional for students anticipating either sociology or social work or teaching as a career. A study of general conditions related to juvenile delinquency, including a critical examination of trends and methods of treatment. (Fall, spring)

410G Urban Sociology. 3 hours.

Prerequisite: Six hours of sociology or consent of instructor.

A course dealing mainly with the impact of city life on social actions, social relationships, and social institutions. Emphasis will be placed on the rise and significance of cities in American life, with special attention on modification of educational, political, and religious institutions as well as housing, transportation and communication. (Fall)

415G Sociology of Religion. 3 hours.

Prerequisite: Six hours of sociology or consent of

instructor.

Study of the various forms and content of religious organizations and movements and the behavioral and attitudinal concomitants of religious affiliation. (Spring)

420G The Family. 3 hours.

Prerequisite: Six hours of sociology or consent of instructor.

Optional for students anticipating either sociology, social work, or teaching as a career. An analysis of the family institution, its structure and function, and the dynamics of social change on family interaction and organization. (Fall, spring)

433G Correction and Confinement. 3 hours.

Prerequisite: Sociology 365 or consent of instructor.

An examination of modern penology to include a survey in the structure and function of the correctional process, and a specialized study of trends, legislation, experiments and accomplishments in correctional programs. Topics such as inmate classification, institutional treatment and control and program evaluation will be emphasized. (Fall)

435G Probation and Parole. 3 hours.

Prerequisite: Sociology 365 or consent of instructor.

A survey of community treatment of convicted law violators, as part of the correctional process. Examines the role of probation and parole personnel. Attention is given pre-sentence in investigation and selection, supervision and release. Includes prediction of behavior during and after probation and parole as well as administrative and judicial processes involved. May include field trips when practical. (Spring)

445G Industrial Sociology. 3 hours.

Prerequisite: Sociology 346 or consent of instructor.

The study of the factory as a social system, and the interrelation of industry and the social order. Selected problems of technological change, industrialization, and human relations in industry are examined. Attention is given to research implications for industrial behavior. (Spring, alternate summers)

450G Occupations and Professions. 3 hours.

Prerequisite: Sociology 346 or consent of instructor.

An analysis of occupation specialization and the nature of occupational organization. A variety of occupations and professions will be examined to determine the place of work in the life of their members. Special attention will be paid to the impact of occupational membership on the behavior of the individual. (Spring, alternate summers)



465G Mass Society and Mass Communication. 3 hours.

Prerequisite: Sociology 110, 295, or consent of instructor.

An in-depth study of the relationship between the organization of mass society and its communication media. Propaganda and other mass persuasion techniques are examined as these relate to the formation, alteration or maintenance of public opinion and mass values. Particular emphasis is given to the impact of television on culture and social structure. Additional foci include a cross-cultural, structural-functional analysis of the media as social systems. (Spring)

495G-496G Directed Study. 3 hours.

Prerequisite: Consent of the Department Head. This elective is available to superior students who wish to conduct individual, intensive reading and research in a specific area of sociology in close

cooperation with supervising faculty. Submission of such projects to student sections of regional professional meetings is encouraged. (Fall, spring, summer)

Graduate Courses in Anthropology

507 Elements of Anthropology. 3 hours.

Prerequisite: Graduate standing.

Designed as an advanced first course in basic anthropology for the non-anthropology graduate student. The course will be organized around the concept of culture, discussing such problems as the nature of culture, the materials of culture, the structure of culture, aspects of culture, cultural dynamics, and cultural variation. The course will attempt a general overview of the field of anthropology.



SOCIOLOGY AND ANTHROPOLOGY

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

440G Cultural Anthropology. 3 hours.

Prerequisite: Anthropology 150 or consent of the instructor.

A study of selected topics in ethnological theory and methods of analysis. Attention is given to comparative and functional analysis of culture configuration, and also to the historical development of theory in anthropology. (Spring)

491G-492G Field Course in Archaeology. 3 hours each.

Prerequisite: Anthropology 151, 280, 330 or consent of the instructor.

A field course emphasizing the techniques used by archaeologists for the recovery, preservation and recording of information pertaining to man's past. Course content includes archaeological survey, site excavation mapping and recording techniques and cataloging procedures. Excavation will usually be conducted on prehistoric Indian sites. (Fall, spring, summer)

495G-496G Directed Study. 3 hours.

Prerequisite: Consent of the instructor. (Fall, spring, summer)

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

425G Problems in Social Welfare. 3 hours.

Prerequisite: Social Work 476 or 477.

Problems of current importance in the field of social welfare are identified and examined. Emphasis is placed on issues and problems in public welfare. The student in the seminar will be expected to give reports and papers on a topic related to a problem or issue identified in field experience as well as to do intensive reading on that topic. (Fall, spring, summer)

460G Social Action. 3 hours.

Prerequisite: Nine hours of social work or consent of instructor.

Concepts from the behavioral sciences are examined to aid the student in analyzing community structure and organization for the purpose of effecting change. Application of planned change theory will be sought in relation to defined social welfare needs. A social system orientation is used as the basis of theory. (Fall)

475G Social Welfare Administration. 3 hours.

Prerequisite: Social Work 330 or consent of instructor.

Identification and analysis of the process of administration as related to practice. Emphasis is placed on the role of the worker in the processes by which groups and individuals meet community needs through planning, organizing, administering and coordinating social welfare services. (Spring)

555 Seminar in Anthropological Theory. 3 hours.

Prerequisite: Consent of instructor.

An examination of the history and development of anthropological thought to the end of the nineteenth century and a 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 Techniques and Materials in Folklore Studies. 3 hours.

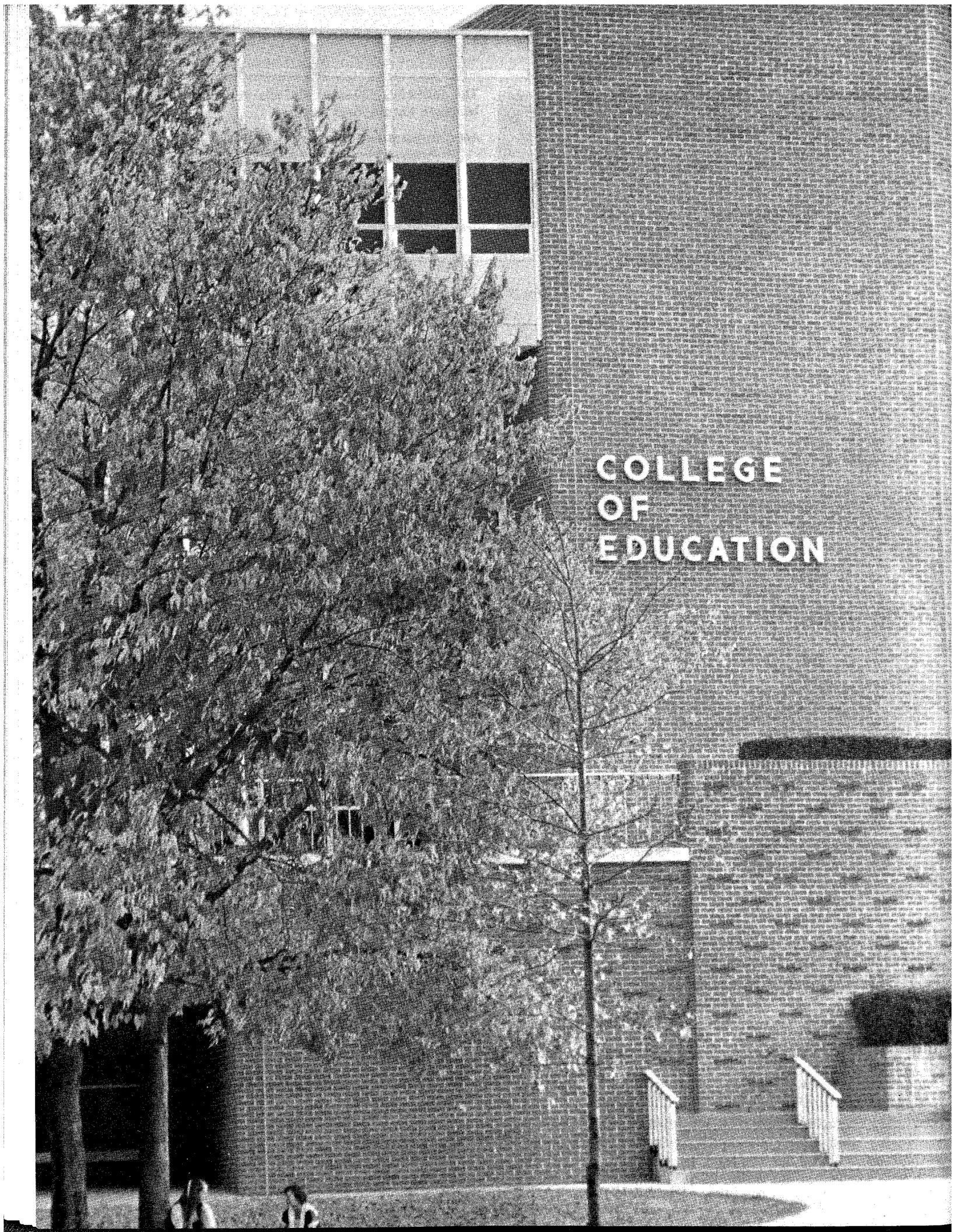
See: Intercultural and Folk Studies 577.

578 Folklore and Folk Life Research. 3 hours.

See: Intercultural and Folk Studies 578.

579 Directed Study and Research in Folklore. 3 hours.

See: Intercultural and Folk Studies 579.



COLLEGE
OF
EDUCATION

COLLEGE OF EDUCATION

DEPARTMENTS

Center for Career and Vocational Teacher Education
Counselor Education
Educational Administration and Foundations
Elementary Education
Industrial Education and Technology
Physical Education and Recreation
Psychology
Reading and Special Education
Secondary 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 or Secondary)
Rank I — School Administration
Rank I — Guidance
Vocational Administrator Certification Program

CENTER FOR CAREER AND VOCATIONAL TEACHER EDUCATION

Norman Ehresman, Director

Graduate Faculty

Professors: N. Ehresman, C. Riley

Associate Professors: V. Feck, W. Nave

Assistant Professors: W. Ashley, N. Schira

The Center for Career and Vocational Teacher Education coordinates vocational teacher education programs and offers a program leading to certification for administrators, coordinators, and supervisors of vocational education. The program, designed to provide knowledge and competencies needed by vocational administrators, includes a minimum of 15 hours which may be planned into a master's degree or other graduate programs in the following departments or areas: agriculture, business education, health and safety, home economics, industrial education, and distributive education. Students interested in graduate programs in vocational education may contact the appropriate departments.

Graduate Courses Offered

578 Basic Education for Adults. 3 hours.

A graduate course designed especially for present and prospective teachers of adult basic education. This involves a study of the unique aspects of teaching the disadvantaged adult. Emphasis is given to an examination of the characteristics of and factors affecting the under-educated adult student, curriculum planning, methods of instruction and evaluation.

581 Organization and Administration of Occupational Education Programs. 3 hours.

A study of the organization, administration, and implementation of occupational education programs as an integral part of the total education system.

582 Adult Education Program Planning Principles. 3 hours.

This course deals with the basic principles of adult learning, decision making, and considerations for planning, executing and evaluating adult education programs.

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

This course involves a study of the types, sources, standards and management functions and procedures concerned with financing and operating numerous federal-state, occupational education programs.

592 Program Planning in Occupational Education. 3 hours.

This course involves methods of determining the need for occupational education programs, development of programs and curriculums, evaluating and improving existing programs, and annual and long-range program planning.

593 Planning and Equipping Occupational Education Facilities. 3 hours.

This course involves a study of techniques and procedures in determining occupational education facility needs, evaluating existing facilities, planning for new construction, renovation of existing buildings and maximum utilization of existing facilities.

594 Seminar on Leadership in Occupational Education. 3 hours.

This course involves a study of principles and practices of leadership related to involving community resources in the development and operation of occupational education programs.

595 Supervised Practice in the Administration of Occupational Education Programs. 3 to 6 hours.

Supervised practice in the administration of occupational education programs in the work setting with emphasis on the development of administrative leadership and management skills.

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

Designed to acquaint teachers with the philosophy, theory and practices which are essential in an effective student teaching program. Attention is given to both State and NCATE standards in a vocational student teaching program.

693 Programs of Continuing Education. 3 hours.

A general survey of adult education with emphasis upon the philosophy, organization and administration of continuing education programs.



DEPARTMENT OF COUNSELOR EDUCATION

Emmett Burkeen, Head

Graduate Faculty

Professors: E. Burkeen, D. Mitchell

Associate Professors: S. Brumfield, S. Farley,
S. Schnacke, V. Sheeley, T. Updike, J. Wilder

Assistant Professors: W. Ashley, R. Greer,
G. Kiewra, F. Robinson

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

The major purpose of counselor education programs is to provide competencies required of professional workers in the area of guidance, counseling, and personnel services. Counselor education programs are available at Western to prepare school and professional personnel for the following positions: elementary school counselor, secondary school counselor, higher education counselor, employment counselor, vocational counselor, counselor in community agency, student personnel worker in higher education, and business and industrial personnel worker.

Master of Arts in Education. This program leads to the Master of Arts degree and the provisional certificate for school counselors. Students desiring to pursue the program must meet requirements for admission to the Graduate College and must obtain admission to the Department of Counselor Education. Prior to departmental admission, students shall complete Education 500 (Research Methods), Education 550 (Introduction to Guidance), and one course from: Education 577 (History and Philosophy), Education 580 (The Curriculum), Education 576 (Foundations of Education).

In addition to the nine hours of pre-admission coursework, the following course requirements must be met:

A. Counselor Education Courses:

1. Elementary School Counselor

Ed. 552 — Individual and Group Analysis . . 3 hrs.
Ed. 554 — Group Guidance 3 hrs.
Ed. 558 — Counseling Theory and Practice . 3 hrs.
Ed. 560 — Counseling Practicum 3 hrs.
(Experiences in the practicum must be obtained at the elementary school level)

2. Secondary School Counselor

Ed. 552 — Individual and Group Analysis . . 3 hrs.
*Ed. 556 — Informational Services 3 hrs.
Ed. 558 — Counseling Theory and Practice . 3 hrs.
Ed. 560 — Counseling Practicum 3 hrs.

COUNSELOR EDUCATION

(Experiences in the practicum must be obtained at the secondary school level)

*In some special cases, Ed. 554 (Group Guidance) may be used to fulfill this requirement.

B. Subject Matter Area (minor) Courses:

1. Elementary School Counselor

Guided related subject matter courses in the area of psychological, physical and social development of children 9 hrs.

2. Secondary School Counselor

Guided related subject matter courses other than professional education 9 hrs.

Student Personnel Services. Students desiring to pursue this program must meet the general admission requirements for the Master of Arts degree in Education.

Curriculum

A. Professional Education (6 hours)

Education 500 (Research Methods) and three hours selected from:

Ed. 576 — Foundations of Education 3 hrs.
Ed. 577 — History and Philosophy of Education 3 hrs.
Ed. 580 — Curriculum 3 hrs.
Ed. 675 — Higher Education in America 3 hrs.

B. Major (15-18 hours)

Ed. 550 — Introduction to Guidance 3 hrs.
Ed. 552 — Individual and Group Analysis . . 3 hrs.
Ed. 554 — Group Guidance 3 hrs.
Ed. 556 — Informational Services 3 hrs.
Ed. 558 — Counseling Theory and Practice . 3 hrs.
Ed. 560H — Practicum in Student Personnel Services in Higher Education (required) 3 hrs.

Ed. 652 — Research in Guidance and Counseling 3 hrs.

Ed. 664 — Org. and Adm. of Student Personnel Services (required) 3 hrs.

Ed. 674 — Seminar in Student Personnel Services in Higher Education (required) 3 hrs.

Note: Other counselor education courses may be selected.

C. Distributed Minor (6-9 hours)

Courses are selected from subject related areas such as: psychology, sociology, government, mass communications, home economics and family living, economics, and health and safety.

Master of Public Service (Counseling option). This degree, an interdisciplinary program, consists of offerings from several departments and is designed to pre-

COUNSELOR EDUCATION

pare individuals to serve in governmental positions which require administrative training as well as knowledge of the particular areas they are to administer.

All candidates for the Master of Public Service degree (regardless of the option chosen) are required to complete a core area of nine to 12 hours including Public Affairs 540 — Public Administration (which is required of all).

The remaining hours of the core may be selected from the following courses:

- Economics 550 — Government Financial Policy and Administration
- Geography 580 — Problems in Urban Geography
- Government 511 — Seminar in State and Local Government
- Sociology 565 — Studies in the Community
- Psychology 551 — Social Psychology of Organizations

A candidate for the counseling option of the MPS who has not completed a minor or the equivalent in psychology or sociology shall remove this deficiency by completing the necessary undergraduate courses to meet the behavioral science prerequisite, which must be satisfied prior to admission to the program.

In addition to the core requirements, students pursuing the counseling option must complete three hours of psychology or sociology and 18 hours of counselor education courses approved by the candidate's advisor.

Required Counselor Education Courses:

- Ed. 550 — Introduction to Guidance
- Ed. 552 — Individual and Group Analysis
- E. 558 — Counseling Theory and Practice
- Ed. 560 — Counseling Practicum

The remaining six hours may be selected from:

- Ed. 500 — Research Methods
- Ed. 501 — Education Statistics
- Ed. 530 — Vocational Education
- Ed. 554 — Group Guidance
- Ed. 556 — Informational Services
- Ed. 650 — Utilization of Community Resources
- Ed. 656 — Seminar in Vocational Guidance and Occupational Adjustment
- Ed. 675 — Higher Education in America

Specialist in Education (Counselor Education major).

The student desiring to pursue the Specialist in Education (Ed.S.) degree offered through the Department of Counselor Education must obtain admission to the Graduate College and must also be admitted to the department. A personal interview with a departmental faculty member is required for the purpose of reviewing the student's professional and educational background as well as other pertinent data. The interview information will be presented to a departmental admissions committee which will make the final recommendation regarding the student's eligibility.

The student may select one of three major emphases for the coursework: school counseling, public service

counseling and personnel work, and student personnel services in higher education.

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

Foundations Core — education and research	6 hours
Major Area of 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 other related areas	6-12 hours

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

Graduate Courses in Counselor Education

550 Introduction to Guidance. 3 hours.

A basic course designed to present an over-all view of philosophy, organization, administration and operation of guidance and personnel services rendered at all education levels and to develop an understanding of the functions of personnel and guidance services in modern society.

552 Individual and Group Analysis. 3 hours.

A study of the methods, techniques and instruments used by guidance and personnel workers in the assessment and evaluation of individuals and groups. Attention is given to methods and administering, scoring, and interpreting both objective and subjective instruments. A survey is made of research design, statistics and computer utilization. Opportunities are provided for observation and participation in use of instruments.

554 Group Guidance. 3 hours.

A study of the dynamics and processes within group structures; experiences in the formation of groups and their utilization in group counseling procedures and in the guidance aspects of career development and vocational choice. Opportunities are provided for observations and participation in group work.

556 Informational Services. 3 hours.

A study of the sources, types, and uses of educational and occupational information applicable to a program of developmental guidance and counseling.

558 Counseling Theory and Practice. 3 hours.

A study of the major contemporary theories of counseling along with the implementation of the various methods and procedures followed in individual and group counseling. Attention is also given to laboratory demonstration and participation.

COUNSELOR EDUCATION

560 Counseling Practicum. 3 hours.

Provides for supervised experiences in actual work with students in the appropriate education setting in which the individual plans to seek certification or employment. These experiences include both guidance and counseling activities with students. This practicum also provides experiences for students planning to enter employment in governmental business and industry.

561 Introduction to Rehabilitation Counseling. 3 hours.

An overview of the basic counseling procedures appropriate to rehabilitation. Includes consideration of the history, settings and survey of the functions of the rehabilitation counselor.

650 Utilization of Community Resources in Guidance. 3 hours.

This course provides for individual community surveys of all resources which may be used in the processes and procedures of guidance and counseling to assist students in the proper choice of educational programs to qualify them for careers of their own selection. Based upon surveys actually made, ways and means of utilization of resources surveyed are discussed and applied where practicable.

652 Research in Guidance and Counseling.

1 to 3 hours.

Research problems relating to the organization and administration of the guidance program.

654 Mental and Aptitude Testing. 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.

An exploration and determination of the guidance services for the elementary school that are congruent with the philosophy, curricula and student patterns within the elementary school; and the means for instituting and maintaining them in practice.

656 Seminar in Vocational Guidance and Occupational Adjustment. 3 hours.

This seminar provides for the intensive study of vocational guidance and occupational adjustment and application at all levels — schools and colleges, business and industry, and government.

657 Readings in Contemporary Counseling. 3 hours.

The reading and criticism of significant books and research articles in counseling theory, theory application and innovative techniques. The course is intended to provide indepth awareness of recent trends in counseling.

658 Seminar in Guidance and Counseling. 3 hours.

The purpose of this seminar is to provide an opportunity for the systematic involvement of the student in the presentation and critical discussion

of research and important studies made in the area of counseling and guidance. Both theoretical and practical criticism of relevant research studies in the field of guidance are emphasized.

659 Theories of Career Development and Vocational Choice. 3 hours.

This is an advanced course designed for those teachers and counselors who wish to study and apply theories of vocational development, socio-logical aspects of vocational choice and entry, development of interests and aspiration levels, and the research relating to entry into work, advancement in work, satisfaction in work, dissatisfaction in work, job charging, values and attitudes about work, and related topics. The course is structured around the major theories of vocational development as they relate to educational progress.

660 Organization and Administration of Guidance Services. 3 hours.

This course provides an analysis of the guidance services in elementary and secondary schools and the appropriate organization for making effective these services. Attention will also be given to the basic principles and postulates underlying the justification of guidance services. Emphasis is placed upon problems such as: initiating guidance programs; developing related services; staffing; physical facilities; providing adequate budget; etc.

661 Seminar in Disability and Rehabilitation Counseling. 3 hours.

An examination of psychological, physiological, and sociological impacts of various types of congenital and traumatic disabilities. Emphasis is placed on appropriate roles in the rehabilitation counselor's role.

662 Advanced Counseling Practicum. 3 to 6 hours.

The purpose of the advanced counseling practicum is to function as a training facility for supervised on-campus experiences in the counseling of elementary, junior and senior high school students, and their parents. Emphasis is placed upon educational, vocational, and social-personal planning and problems. The practicum also provides for an understanding of and for practice in relating the other main guidance services (individual inventory, information services, placement, and follow-up) to the heart of the guidance process . . . counseling. It also involves opportunities for experience in providing consultive services to professional people working with children who might be teachers, principals, counselors, agency workers and others.

663 Counseling the Exceptional Child and Parent. 3 hours.

The content of the course considers first the general concepts of exceptionality such as statis-

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tical overview, the myths of disability and societal stereotypes. The counseling and guidance needs and techniques of the exceptional child are considered next. Particular attention is directed to referral, resources, staffing and coordination efforts of the counselor. The parent of the exceptional child, their needs and effective counseling techniques comprise the third major area of content.

664 Organization and Administration of Student Personnel Services in Higher Education. 3 hours.

The content of the course is devoted to the history and philosophy of student personnel services and the scope of personnel work. The professional nature of the personnel worker is emphasized. Services covered are those dealing with records; admission, readmission, and retention of student; student conduct; orientation; housing; extra curricular activities; financial aid; counseling and advising; health; and placement.

674 Seminar in Student Personnel Services in Higher Education. 3 hours.

This course is an advanced seminar in the philosophy, organization, administration, and current practices in student personnel work.

699 Specialist Degree Project. 6 hours.

The specialist project, a form of independent study, may be a field project, a creative study, or a more formal experimental type of research culminating in a scholarly report.

699c Maintaining Matriculation. 1 to 6 hours.

DEPARTMENT OF EDUCATIONAL ADMINISTRATION AND FOUNDATIONS

Victor Christenson, Head

Graduate Faculty

Professors: B. Broach, V. Christenson, C. Clark, N. Deeb, G. Farley, C. Frady, C. Kreisler, J. T. Sandefur

Associate Professors: R. Adams, E. Ball, P. Constans, K. Estes, E. Harryman, D. Shannon

Degrees Offered: Master of Arts in School Business Administration, Specialist in Education

The Department of Educational Administration and Foundations provides programs designed to prepare school personnel for effective leadership in the elementary and secondary schools. The curricula are designed to meet professional certification standards

in school administration and supervision. The department also provides educational foundations courses which give professional educators a greater understanding of their roles as educators and of the role of educational institutions in society. Program specialization areas available are school business administration, elementary school administration, secondary school administration, director of pupil personnel, supervision of instruction, and general school administration.

Master of Arts in School Business Administration

Required courses in education are 577 — History and Philosophy 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 may be gained by completing 18 hours of the above coursework 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)

The Specialist Degree in Education in School Administration is an advanced professional degree involving a minimum of 30 semester hours of graduate study beyond the master's degree. It is designed to help educational administrators become more competent members of their profession and to meet specific goals and objectives in students' areas of specialization.

Professional Certificate for School Administration and Supervision

The professional certificate for school administration and supervision shall be issued initially upon completion of a program of preparation for a school leadership position. The certificate shall be endorsed for the specific position for which the program of preparation has been completed. When the professional certificate for school administration and supervision has been issued and endorsed for one position it may be further endorsed for another position upon completion of that particular program. Programs are offered for endorsement of the certificate in the following areas: elementary principal, secondary principal, supervisor of instruction, director of pupil personnel, school business administrator, and superintendent. All school administration programs other than school business administration require additional study above the master's

degree, and application for admission should be made after completion of the M.A. degree. Admission will be based on:

1. Satisfactory experience in public or private schools.
2. Recommendations from school officials where the experience was obtained.
3. Recommendations from graduate faculty members with whom the candidate has had courses.
4. Satisfactory standardized test scores indicating achievement and a potential for growth.
5. Satisfactory scholastic record.
6. Personal interview.

Curriculum 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 and must also complete 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.

Curriculum for Director of Pupil Personnel Endorsement

The professional certificate for 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

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583 — Accounting for Pupil Personnel

585 — Fundamentals of School Administration and must also complete departmentally approved electives selected from the behavioral sciences and from administration to meet certification requirements and to provide the necessary competencies in those areas.

Curriculum for Supervisor Endorsement

The professional certificate for 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

— Advanced Reading
and must also complete departmentally approved electives selected from curriculum, supervision, administration and/or subject-matter areas to meet certification requirements and to provide the necessary competencies.

Curriculum 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. Completion of, as a general rule, 21 hours outside education (within the 60 hour minimum).
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 subject-matter fields to meet certification requirements and provide administrative competencies.

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Graduate Courses in Educational Administration and Foundations

500 Research Methods. 3 hours.

Application of scientific method to educational research including theory of research, experimental design, techniques in data gathering and the interpretation of results. To include reporting and bibliographical techniques.

501 Educational Statistics. 3 hours.

Graphic and tabular arrangement of data; measures of central tendency; measures of relationship.

548 Research in Curriculum and Instruction.

1 to 3 hours.

Research in instructional problems in reading, mathematics, science, social studies, and English. Research in the area of the elementary and secondary curriculum.

570w Workshops in Education. 1 to 3 hours.

Special short courses on educational problems.

576 Foundations of Education. 3 hours.

An examination of past and contemporary factors in American education.

577 History and Philosophy of Education. 3 hours.

Survey of the historical roots of dominant philosophies of education.

583 Accounting for Pupil Personnel. 3 hours.

Problems of personnel accounting with special attention to the work of director of pupil personnel, and to records and reports incident to the Minimum Foundation Program.

585 Fundamentals of School Administration. 3 hours.

An introductory course concerned with the organization and administration of American schools. Principles of effective leadership are explored, and the roles and responsibilities of the various administrative — supervisory positions are examined.

588 School Business Management. 3 hours.

The principles of efficient and effective operation of the fiscal and business aspects of school administration are studied as they affect the educational program.

590 Administration of School Personnel. 3 hours.

The concept of the personnel administrator is one of allocating human resources to accomplish the purposes of the school organization.

596 Readings in Education. 1 to 3 hours.

Opportunity for advanced students in education to do reading and research in the field of major interest under the guidance of the major professor. Registration only by permission of the major professor.

597 Problems in Administration and Supervision. 1 to 3 hours.

Students identify and solve administrative problems of concern to them in their own school districts. Permission of instructor required.

598 The Organization and Supervision of Student Teaching. 3 hours.

Designed to acquaint teachers with the philosophy, theory, and practices which are essential in an effective student teaching program. Attention is given to both State and NCATE standards for teacher education, personal and professional relationships, common problems of student teachers and evaluation of student teachers.

599 Thesis Research and Writing. 6 hours.

599c Maintaining Matriculation. 1 to 6 hours.

601 Statistical Techniques for Experimental Designs in Education. 3 hours.

A study of parametric and non-parametric statistical techniques applied to experimental and quasi-experimental research designs in education.

675 Higher Education in America. 3 hours.

An examination of the history, purpose, philosophy, organization, curriculum, student personnel services, financial services, and trends of the American system of higher education.

676 Public School Finance. 3 hours.

Local school finance; school budgets, 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 decisions; administrative problems and school code.

678 School Plant Administration. 3 hours.

Prerequisite: Education 585. Educational needs and school building planning; architect service; standards of construction; types of buildings; building surveys.

679 Seminar in Foundations of Education. 3 hours.

An inter-disciplinary seminar for advanced students. Registration by permission of instructor.

681 Secondary School Curriculum. 3 hours.

Critical issues in the secondary school curriculum and ways of resolving these issues for an improved program of secondary education.

682 School-Community Relations. 3 hours.

A study of the background, need, and techniques of acquiring a wholesome working relationship with the laymen. Special emphasis is placed on lay involvement in school programs.

683 Seminar in Curriculum Development. 3 hours.

An advanced seminar for the consideration of factors influencing curriculum development.

- 684 Supervision of Elementary School Subjects. 3 hours.**
Application of principles of supervision to problems of instruction in the elementary grades.
- 685 Academic Problems in Higher Education. 3 hours.** Prerequisite: Higher Education 675 or permission of instructor.
An analysis of the major problem areas of academic administration. The problems, issues, and procedures of college and university level curricular development are emphasized.
- 686 Principles of Supervision. 3 hours.**
The instructional side of school administration; organization, problems, principles, and techniques of improving teachers in service.
- 688 Evaluating the Elementary School. 3 hours.**
A study of the techniques of evaluation of the elementary school. Special emphasis will be given to approaches to evaluating the school for accreditation purposes as well as for general school improvement programs. This course is designed specifically for those preparing for administrative and/or instructional leadership roles.
- 691 Elementary School Organization and Administration. 3 hours.**
Prerequisite: Education 585.
Problems of organization and administration of elementary schools with special emphasis on the 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.**
Prerequisite: Education 585.
Problems of organization and administration of secondary schools with special emphasis on 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. For advanced graduate students in administration and supervision.
- 695 School Surveys. 3 hours.**
Techniques of making school surveys; gathering and interpretation of data; evaluation of educational programs, evaluation of facilities; prediction of future enrollment, and presentation of school authorities.
- 696 Advanced Theory in Education Administration. 3 hours.**
Theoretical approaches to the study of administration and leadership with particular reference to theories of education administration. For advanced graduate students. Registration by permission of instructor.
- 697 Research in Administration and Supervision. 1 to 3 hours.**
Special research projects in administration and supervision.
- 698 Practicum in Administration and Supervision. 3 to 6 hours.**
Internship of other field experience for administrators and supervisors. Permission of instructor required.
- 699 Specialist Project. 6 hours.**
The specialist project, a form of independent study, may be a field project, a creative study, or a more formal experimental type of research culminating in a scholarly report.
- 699c Maintaining Matriculation. 1 to 6 hours.**
- The following 400-level course may be taken for graduate credit**
- 422G Advanced Instructional Design. 3 hours.**
Offered only for U.S. Army Armor School personnel. Provides the philosophy, knowledge, and skills necessary to develop instructional programs utilizing a systems engineering design approach.

DEPARTMENT OF ELEMENTARY EDUCATION

Robert Slemaker, Head

Graduate Faculty

Professors: G. Crumb, H. Hardin, J. Hicks,
R. Slemaker, D. Watts

Associate Professors: J. W. Davis, D. Geeslin,
A. Munson, D. Ritter, H. Simmons, R. Stevenson
Assistant Professors: R. Otto, J. Sanders, S. Taylor

Degrees Offered: Master of Arts in Education (Elementary Education major), Specialist in Education for Elementary Teacher.

Master of Arts in Education (Elementary Education major)

This program leads to the standard elementary certificate. Applicants for admission must hold a teaching certificate valid at the elementary school level. Work taken in connection with endorsement of a secondary school certificate for teaching at the elementary level will not apply to the master's degree.

The standard elementary certificate, valid for 10 years, shall be issued to a person who meets the re-

ELEMENTARY EDUCATION

quirements of law and general regulations of the State Board of Education and files a transcript of credits showing the completion of the four-year curriculum for the training of elementary teachers as prescribed by the Council on Public Higher Education and who, in addition thereto, completes the requirements for a master's degree in a standard graduate school, as prescribed.

The curriculum for the M.A. in Education (elementary) is based upon the following:

1. At least 12 of the required 30 hour minimum shall be in professional education. Nine of these 12 hours must be in courses open only to graduate students and must be selected from the following areas: (a) a general study of curriculum development, (b) research methodology, (c) advanced study in reading (required unless waived on basis of previous advanced study in reading), (d) advanced study in human growth and development, (e) the psychology of learning, (f) a seminar in instruction devoted to the method of teaching, (g) foundations in education—sociological, psychological, philosophical, historical. These courses will be chosen according to the student's needs after consultation with the student's graduate advisor in education.
2. At least 12 hours shall be in non-professional subject matter courses. These courses must be selected from the fields of study required in general education and/or in subject matter courses used in partial fulfillment of the four-year curriculum for elementary certification. The student may take a distributed subject matter minor; that is, the minor may consist of courses from as many as three different subject fields.

Special Emphases

Within the guidelines stated above, an elementary teacher may elect an area of specialization. Some of the available areas are:

- Early Childhood Education
- Reading
- Special Education
- Elementary Librarian (provisional certification)

Specialist Degree in Education (For Elementary Teachers)

This degree is a post-master's degree designed to provide opportunity for the advanced graduate student to improve the foundations and competencies for teaching. The degree program may also be structured to meet Rank I requirements under Kentucky's minimum foundation program of education. The Ed.S. Degree in Elementary Education may be developed, under advisement, to provide one of the following emphases or specializations:

1. Reading (reading specialist certificate)
2. Early Childhood Education (endorsement of provisional or standard elementary certificate for teaching kindergarten)
3. General Curriculum and Instruction

Admission Requirements

In addition to the general Ed.S. requirements the following departmental requirements must be met:

1. The student must have three years of teaching experience at the elementary school level. (Up to two years of elementary school experience may be waived in favor of equivalent experience.)
2. The student must submit four letters of recommendation: two from graduate faculty members and two from professional associates in administrative and/or supervisory roles.

Program Requirements

In planning the student's program, consideration will be given to his/her previous experience and preparation. However, the following requirements must be met: educational foundations courses — 6 hours, cognate area — 6 hours, area of specialization — 12 hours, and specialist project — 6 hours.

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 Elementary Education

503 Organization of the Elementary School Curriculum. 3 hours.

An advanced study of principles and practices in curriculum construction in the elementary school. Emphasis is placed on forces affecting curriculum and current innovations and trends.

505 Advanced Materials and Methods in Modern Mathematics for Elementary Teachers. 3 hours.

Mathematics for grades kindergarten through grade eight is taught with an attempt to blend the conceptual, the computational and application aspects of mathematics. Emphasis is placed on the structural aspects of mathematics and an attempt is made to show the "why" of arithmetic computation. An extension of Education 305.

506 Seminar in Elementary School Science. 3 hours.

A graduate seminar in methods and materials appropriate to the teaching of science in the elementary school.

507 Advanced Materials and Methods in Social Studies. 3 hours.

The study of elementary social studies concepts and objectives, classroom organization for instruction, current strategies in teaching content, and materials available in the area.

508 Child Development and Child Study for Elementary Teachers. 3 hours.

Prerequisite: Education 500 or permission of instructor.

A study of the educational implications of major

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theories of child development. The course includes an intensive study of a child or children with interpretations of the collected data in terms of educational techniques and practices.

509 Curriculum Trends in Early Childhood Education. 3 hours.

A study of current national and international issues and problems in preschool and early elementary education with emphasis on program planning for curriculum improvement.

543 Interactive Teaching Skills. 3 hours.

Provides the opportunity for elementary and secondary teachers to develop interactive teaching skills by selecting and completing two or four minicourses developed by Far West Laboratory for Educational Research and Development.

544 Classroom Teaching Strategies. 3 hours.

Provides the opportunity for elementary and secondary teachers to extend their repertoire of teaching strategies by completing two of five minicourses developed by the Far West Laboratory for Educational Research and development.

599 Thesis Research and Writing. 6 hours.

599c Maintaining Matriculation. 1 to 6 hours.

699 Specialist Project. 6 hours.

The specialist project, a form of independent study, may be a field project, a creative study, or a more formal experimental type of research culminating in a scholarly report.

699c Maintaining Matriculation. 1 to 6 hours.

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

412G Materials and Methods in Preschools. 3 hours.

Prerequisite: Psychology 220, Education 310. Emphasizes the organization of educational programs for kindergartens and nursery schools, the planning and using of materials in preschool programs, the selection and care of materials, methods according to individual and group needs, and interest of young children. Guided observations will be made in approved preschool programs. Two lecture periods and a two-hour lab. Required for kindergarten certification endorsement.

445G Audio-Visual Materials and Methods. 3 hours.

Instruction and laboratory experience in the operation and maintenance of audio-visual equipment; theory relative to the best practices in audio-visual techniques.

446G Selection, Acquisition and Evaluation of Non-Print Material. 3 hours.

Prerequisite: Permission of instructor.

This course will include instruction and experiences to enable students to locate sources of

supply for non-print materials and to identify and use appropriate selection aids. The course will also be concerned with acquisition procedures and evaluative techniques appropriate to non-print materials.

DEPARTMENT OF INDUSTRIAL EDUCATION

Frank Conley, Head

Graduate Faculty

Professors: F. Pittman, D. Wendt

Associate Professors: F. Conley, E. Hein

Assistant Professor: R. Eversoll

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 to improve the competencies of persons who are teaching in or administering industrial education programs and also to serve as the basis for entry into a specialist or doctoral degree program. Its flexibility meets the needs of students with varying backgrounds and aspirations.

The student following this program must meet all requirements for standard high school certification (See Secondary Education).

The student *majoring* in industrial education completes 18 to 21 hours in that area and a minimum of nine hours in professional education. Those pursuing a *minor* take from 12 to 15 hours in industrial education and 15 to 18 hours in professional education.

Specialist in Education (See Secondary Education)

Graduate Courses in Industrial Education

510 Investigations in Industrial Education. 3 hours.

To provide an opportunity for graduate students to study current problems and/or issues in the area of industrial education under the direction of a graduate faculty member. The student will be required to identify, plan, and complete a minor research paper. (Fall, spring and summer)

520 Philosophy of Industrial Education. 3 hours.

To acquaint the student with the development of

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industrial education in Europe and America. Emphasis placed on influences, experiments, and current trends leading to modern practices in industrial arts, vocational education and technical education. (Summer and on demand)

524 Organization and Teaching of Industrial Education for the Handicapped and Disadvantaged. 3 hours.

Analysis of handicaps in relation to industrial education activities. Adapting and implementing activities to the individual student's needs, abilities, and interests. Content will include a survey of current research and literature on the subject of the handicapped and/or disadvantaged, with special emphasis on the involvement of industrial education activities. (On demand)

525 Industrial Education Curriculum. 3 hours.

Includes the study of curriculum practices, concepts, and trends in industrial education; principles underlying curriculum development; and improvement of programs. (Summer and on demand)

The following independent study courses are for students pursuing specific areas. (On demand)

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: Senior or graduate standing in industrial ed. and departmental approval. Provides an opportunity for individual study and/or research relative to problems in industrial education. (Fall, spring, summer)

430G Plastics Mold Design and Construction. 3 hours.

Prerequisite: Industrial Education 130, 131 or consent of instructor. Students will be introduced to plastics mold design as it is related to the physical characteristics of plastics, molding tech-

niques, and mold construction methods. Units of study will include: mold design for each of the major processing techniques, electrical discharge machining, electroforming, pantograph milling, plaster tooling, hobbing and wood fabrication. Each student will be expected to complete a minor research project. Recitation and laboratory. (On demand)

439WG Workshop in Industrial Education. 3 hours.

Special short course on problems in industrial education and technology.

450G Planning Industrial Education Facilities. 2 hours.

Principles and practices underlying the planning and designing of shops and laboratories for vocational-industrial and technical education. (Summer)

452G Industrial Wood Processing II. 3 hours.

Prerequisite: Industrial Education 260 or departmental approval. An advanced course in the set-up and use of woodworking machines. Study includes tooling, jig and fixture design, and the mass production of wood products. Field trips will be utilized as needed. (Fall and on demand)

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. Each student will be expected to plan and complete a minor research project and present his findings to the seminar. (Fall)

464G The Organization and Supervision of Vocational-Industrial and Technical Student Teaching. 2 hours.

This course is designed to acquaint student teacher supervisors with the philosophy, theory, and practices which are essential in an effective student teaching program. Attention is given to vocational-industrial and technical accreditation and certification standards, personal and professional relationships and evaluation of student teachers. (Summer)

465G Industrial Arts for Elementary Teachers. 3 hours.

A course designed for elementary teachers and those preparing to enter the field of elementary education. The course involves a study of the philosophy, purposes, organization and correlation of industrial arts activities as they apply to the elementary school program. Recitation and laboratory. (Summer)

490G Organization and Teaching of Industrial-Technical Subjects in the Multiple Activities Laboratory. 3 hours.

To acquaint students with the procedures and techniques for simultaneously conducting a number of different industrially oriented subjects and occupational orientation activities. Coordinating

PHYSICAL EDUCATION

activities, rotating students, preparing and using appropriate instructional materials, ordering and storing supplies, and identifying and providing for individual differences are areas of concern. Activities will include study, discussion and practical involvement of the method in a typical setting. (On demand)

498G Advanced Wood Products Analysis. 3 hours.

Prerequisite: Industrial Education and Technology 260 or departmental approval. A seminar course devoted to the discussion of selected wood products topics. Study will center upon current research and development as it relates to materials, design, tooling, machining, fabrication, adhesives, fasteners, and finishing in the wood products industries. Field trips will be utilized as part of the course content. (On demand)

DEPARTMENT OF PHYSICAL EDUCATION

Burch Oglesby, Head

Graduate Faculty

Professors: M. Karsner, F. Kirchner, B. Oglesby

Associate Professors: J. Jones, A. Little, W. Meadors

Assistant Professors: C. Hughes, W. Kummer, L. Laney

Degrees Offered: Master of Science in Physical Education (Physical Education major or minor), Master of Public Service (Recreation and Park Administration option), Master of Science in Recreation.

Diversified programs leading to additional depth or breadth in a selected area of physical education and recreation are available to candidates for graduate degrees. A highly qualified staff and outstanding facilities complement these graduate offerings. The department maintains laboratories for study of human motor behavior and physical performance, and strong encouragement is given students to actively pursue personal research interests.

Master of Science in Physical Education

This program is designed to meet the needs of those students who wish to acquire greater depth 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. 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)

Since this program is designed for the public school teacher, students following it 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, and 506. 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 Public Service (Recreation and Park Administration option)

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

This option is a non-teacher, non-certifiable plan with nine hours required in the public service core and 21 hours available in recreation and/or related areas. It is specifically designed to prepare individuals for positions of leadership in recreation and park administration.

All candidates for the Master of Public Service degree (regardless of the option chosen) are required to complete a core area of 9 to 12 hours including Public Affairs 540 — Public Administration (which is required of all).

The remaining hours of the core may be selected from the following courses:

- Econ. 550 — Government Financial Policy and Administration
- Geog. 580 — Problems in Urban Geography.
- Govt. 511 — Seminar in State and Local Government
- Soc. 565 — Studies in the Community
- Psy. 551 — Social Psychology of Organizations

In addition to the core requirements, 15 hours may be selected from the following courses:

- P.E.R. 501 — Analysis of Research in Physical Education and Recreation. Three hours.
- Rec. 513 — Organization, Administration, and Supervision of Parks, Playgrounds, and Recreation Programs. Three hours.
- Rec. 515 — Planning and Maintenance of Park and Recreation Facilities. Three hours.
- Rec. 517 — Construction and Utilization of the Survey in Recreation. Three hours.
- Rec. 519 — Fiscal Practices for the Administrator of Recreation and Parks. Three hours.
- Rec. 521 — Public Relations for Parks and Recreation Programs. Three hours.

PHYSICAL EDUCATION

- Rec. 456G — Advanced Studies in Recreation. Three hours.
- Rec. 481G — Camp Administration and Outdoor Recreation. Three hours.
- Rec. 483G — Social Recreation. Three hours.
- Rec. 484G — Community Centers and Playgrounds. Three hours.
- Rec. 485G — Development of Nature Oriented Areas and Facilities. Three hours.
- Rec. 487G — Outdoor Education Leadership. Three hours.
- Rec. 489G — Professional Field Experiences in Recreation and Parks. Three hours.

To complete the 30-hour minimum, six hours may be selected from courses within the field of recreation or from allied areas.

Master of Science in Recreation

The M.S. Degree in Recreation has been designed to (1) prepare professional recreation practitioners for a wide range of recreation and leisure-service occupations; (2) provide the opportunity for in-depth study in a specialized area of recreation; (3) provide a knowledge of research procedures; and (4) provide the academic graduate background for students wanting to pursue the doctorate in recreation. This program requires a demonstration of competency in use of a research tool. Candidates are encouraged to write a master's thesis.

A twenty-four hour major in recreation is required with a six hour cognate field to be selected in consultation with the student's graduate committee.

Graduate Courses in Physical Education

P.E.R. 501 Analysis of Research in Physical Education and Recreation. 3 hours.

A critical analysis and review of selected studies in the physical education and recreation 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 at Western Kentucky University.) (Fall and summer)

P.E. 502 Philosophical Bases of Physical Education and Athletics. 3 hours.

A comparative analysis of the influence of major educational philosophies upon physical education and athletics is made with a view to preparing the student to develop a practical and usable personal philosophy of modern physical education and athletics. (Fall and summer)

P.E. 503 Motor Learning. 3 hours.

Prerequisite: P.E.R. 501.

A study of the theories and principles of learning as they apply to the acquisition of gross motor skills. Emphasis is placed upon the interpre-

tation and practical application of experimental data.

P.E. 504 Physiological Bases of Motor Performance. 3 hours.

Application of physiological principles of motor activity. Inferences on improving instructional practices are presented.

P.E. 505 Foundations of Curriculum Construction. 3 hours.

Principles, procedures, and criteria for curriculum construction and revision, course building, and lesson planning in physical education. Critical evaluation of typical courses of study at various grade levels. The development of written guides is presented.

P.E. 506—Psychological Aspects of Sport and Performance. 3 hours.

Prerequisite: P.E.R. 501.

A study of the various psychological parameters on sport performance.

P.E. 507 Sport in Culture. 3 hours.

An examination of the sports movement in America from a socio-cultural viewpoint along with an in-depth analysis of current problems and trends.

P.E. 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.

P.E. 511 Theory in Administration and Supervision of Physical Education and Athletics. 3 hours.

A study of the implications of basic administrative theory and research for the administration of physical education and athletic programs.

P.E. 512 Seminar: Administration Problems in Physical Education and Athletics. 3 hours.

Organization and control over programs of physical education and athletics at various education levels. A discussion of controversial issues in physical education and in athletics and practice in seeking solutions to them.

P.E.R. 530 Independent Investigations in Physical Education and Recreation. 3 hours.

Prerequisite: PER 501 and consent of instructor. Special research problems or projects of organizational, administrative, or supervisory nature in the areas of physical education or recreation. (Every semester)

P.E.R. 599 Thesis Research and Writing. 6 hours.

P.E.R. 599c Maintaining Matriculation. 1 to 6 hours.

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

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

PHYSICAL EDUCATION

An investigation of the current problems and trends in elementary school physical education.

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

490G Evaluation in Physical Education. 2 hours.

Prerequisite: Education 340.

A survey of the field of testing in physical education, including a review or the literature on testing, and scope of testing and its value. Practical work in the organization and administration of tests is included.

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

Recognition of abnormalities and exercise for correction.

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

456G Advanced Studies in Recreation. 3 hours.

481G Camp Administration and Outdoor Recreation.

3 hours.

Status, purpose, organization, and administration of outdoor recreation programs for various types of agencies and camps. Topics include program planning, selection and training of staff and health and safety considerations. (Every semester)

483G Social Recreation. 3 hours.

Materials and techniques for planning, conducting, and evaluating programs and activities relative to social events for groups of various sizes and ages in different social situations. (Every semester)

484G Community Centers and Playgrounds. 3 hours.

Various aspects of playground and community center operation. Teaching techniques, essential elements of programming, and problems relating to operation and planning community recreation programs of various types. (Every semester)

485G Development of Nature Oriented Areas and Facilities. 3 hours.

A study of nature trail design and preparation, live and inanimate exhibit design and preparation, resources inventory, buildings, exhibit material purchase, and vandalism and other problems related to the development of nature oriented areas and facilities. (Every semester)

487G Leadership In Outdoor Education. 3 hours.

A study of the importance of such elements as field trips, nature crafts, audio-visual aids and interpretive materials, and programs in the development outdoor education as a recreational activity. (Every semester)

489G Professional Field Experiences in Recreation.

1 to 8 hours.

Experience in recreation planning, leadership, supervision, and program evaluation through work in community recreation and private agency programs. This in-service experience is supervised and controlled by University faculty members and personnel from area recreation agencies. (Every semester)

Rec. 513 Organization, Administration, and Supervision of Parks, Playgrounds, and Recreation Programs. 3 hours.

Detailed study of the organization and administration of recreation of federal, state, and local levels, financing budget, and personnel selection and supervision, departmental organization, administration practices, legislative provision, governmental controls, and correlation and integration of the entire recreation program into the culture and society of the community.

Rec. 515 Planning and Maintenance of Park and Recreation Facilities. 3 hours.

Principles and problems involved in planning and maintenance of park and recreation facilities are considered. Relationship of facilities to program needs are discussed. Field trips to areas and facilities are conducted.

Rec. 517 Construction and Utilization of the Survey in Recreation. 3 hours.

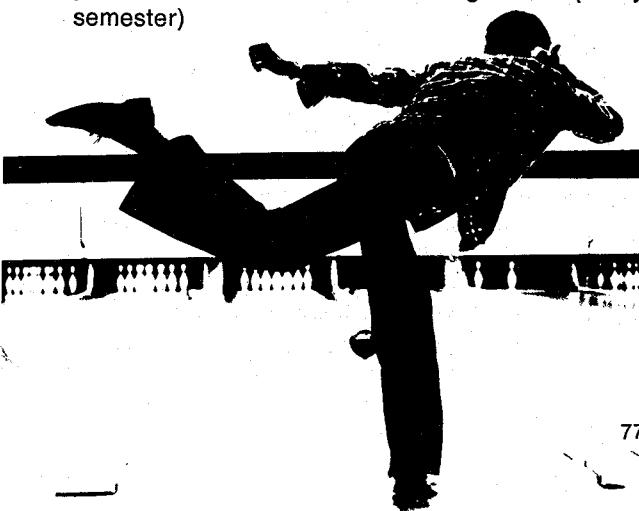
Planning, application, and evaluation of the survey as a means of determining recreation program needs in selected settings. Community recreation surveys are conducted as class projects.

Rec. 519 Fiscal Practices for the Administrator of Recreation and Parks. 3 hours.

Construction of the budget, financial record-keeping, purchasing procedures, personnel problems, and office management related to recreation constitute pertinent topics of the course. Insurance programs and legal problems are also included.

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

Effective communication among colleagues, program participants, and the public through the use of all types of audio-visual devices and techniques are encompassed in the course.



DEPARTMENT OF PSYCHOLOGY

John O'Connor, Head

Graduate Faculty

Professors: W. Cunningham, E. Dotson, A. Laird, H. Robe
Associate Professors: J. Cangemi, L. Clark, J. Craig, C. Layne, C. Martray, L. Metze, J. O'Connor, R. Simpson
Assistant Professors: D. Grice, B. Howton, L. Layne, S. McFarland, R. Mendel, R. Miller, E. Owen, R. Poe, D. Shiek

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 seek teaching positions at the college level or who wish to pursue careers in industry, government, school or clinical psychology.

A number of options are available to students but most are included in the three following plans:

1. A two year training sequence in Clinical or School Psychology
2. A pre-doctoral sequence in General-Experimental Psychology
3. A General Psychology option which prepares one to teach at the college or high school level, enter business or industry, or to pursue a doctoral program in allied areas.

Applicants should have a statistics and experimental methodology course plus some background in general psychology. To be considered for admission, the applicant must have a minimum score of 850 on the Graduate Record Examination (aptitude section) and a minimum undergraduate grade point average of 2.5 with a 3.0 in psychology courses. All applicants should arrange for two letters of recommendation to be sent to the departmental admissions committee.

Clinical or School Psychology

This two-year program prepares a student to assume a position as M.A. level clinical or school psychologist. Upon completion of the program a student is recommended to the State Board of Psychological Examiners for certification and is recommended for employment. Generally, the graduate obtains several years of successful experience in a clinic or other setting before considering the pursuit of a doctoral program.

Undergraduate preparation should include the areas of:

- *Abnormal Psychology
- Social Psychology
- *Personality Theories
- Psychological Testing
- Personal Adjustment and Mental Hygiene
- Physiological Psychology

A minimum of 40 hours (43 for School Psychology) is required to complete the program. Graduate courses which make up the core of the program are: Psychology 540, 541, 550, 560, 561, 562, 563, **592, 640, 641, 642, 660, 661, 662, ***512, ***599.

Note:

- *Required before graduate work is initiated.
- **Required for School Psychology or School Psychometry.
- ***Required for all M.A. programs in Psychology.

General-Experimental Psychology

This 30-hour (minimum) program is designed for students who plan to pursue doctoral studies after completion of the master's degree. If a student anticipates future study in a specialized area (such as social or clinical psychology), courses in the planned area of specialization should be included in the program. Graduates are recommended to appropriate doctoral programs or for teaching positions. They do not have preparation for positions as clinical or school psychologists.

Courses required of all students pursuing the program are: Psychology 500, 511, 512, 513, 599.

Courses for specialization (the student selects 4 of the 8 areas) are: Physiological Psychology (580), Clinical Psychology (541), Psychometrics (563), Developmental (520, 521, 522), Cognition (523), Social Psychology (522), Personality (550).

General Psychology (Specialization in Industrial Psychology)

This program equips the student with specific psychological skills utilized by business and industry. Although it may serve as a bridge to doctoral training in industrial psychology, the program is intended primarily for students who seek a master's as a terminal degree and who are concerned with the development of skills required by industry. The student will meet the requirements of the General Psychology program and will achieve some measure of competence in each of the following areas: employee selection and placement, test construction and validation, training, motivation, job satisfaction, and leadership.

General Psychology

This highly flexible program is designed for students

who do not plan to practice as clinical psychologists or to pursue doctoral study in psychology (although some students enter this program prior to choosing a more specialized area of psychology). Graduates are recommended for teaching positions or for admission to doctoral programs in allied areas or other areas of specialization. Psychology 512, 563, 599, and 18 hours of psychology electives must be included in the required 30-hour minimum for the program.

Master of Arts in Education (Psychology major or minor)

Since this program is designed for secondary school teachers, students 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 psychology; the minor requires a minimum of 12 or a maximum of 15 hours in psychology. The remaining hours, in both cases, will be taken in professional education courses. The thesis is recommended.

School Psychometrist

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

Graduate Courses in Psychology

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

Prerequisite: Graduate standing and permission of instructor.

A survey of the historical and philosophical bases of contemporary psychological thought and research with emphasis on the philosophy and logic of science especially as it pertains to psychology. The understanding and appropriate usage of scientific terminology is also stressed. (Spring of odd-numbered years)

510 Advanced Educational Psychology. 3 hours.

Psychology of learning. Different psychological theories; psychological methods and techniques; experimental literature. (Fall, spring, summer)

511 Psychology of Learning. 3 hours.

A study of theories of learning including conditioning, social learning, reinforcement, problem solving, motivation, and structure of the learning situation. (Fall, spring, summer)

512 Seminar in Experimental Design. 3 hours.

This course is a basic required course for all graduate students in psychology. It is designed to develop an understanding of the principles of experimental design and the application of appropriate statistical techniques. Included in this course will be the design of an experimental project. (Fall, spring)

513 Advanced Statistical Analysis. 3 hours.

Prerequisite: Graduate standing and Psychology 512 (or permission of instructor).

Advanced analysis techniques appropriate to psychological research will be studied. Such procedures as the more complex forms of the analysis of variance, the analysis of covariance, and various types of non-parametric statistics will be emphasized. (Alternate years)

516 Advanced Study in Motivation. 3 hours.

Prerequisite: Graduate standing and permission of instructor. In-depth analysis of historical and present motivation theories. Particular stress will be placed on a current literature survey of both human and animal research. Offers an opportunity for the integration of concepts of scientific logic with a specific area of psychological inquiry. (Alternate years)

520 Psychology of Individual Differences. 3 hours.

A survey of research and theory in developmental aspects of behavior from the prenatal period to adulthood with emphasis upon individual differences. (Fall, spring, summer)

521 Advanced Child Psychology. 3 hours.

A course in child psychology for graduate students, with particular emphasis upon a critical review of current research in child development. (Fall)

522 Advanced Adolescent Psychology. 3 hours.

A critical review of current research and theories in the area of adolescent psychology as they relate to physical, social emotional, and intellectual development. (On demand)

523 Cognitive Theory. 3 hours.

A study of information processing, thinking and cognition. This course will cover major theories and research techniques in the area of cognitive theory. (On demand)

540 Behavior Problems of Childhood and Adolescence. 3 hours.

A descriptive and theoretical survey of the major forms of psychopathology in children and adolescents, with emphasis upon recent research, classification systems and developmental patterns. This course will also cover clinical and school treatment of neurotic, psychotic, sociopathic, organic syndromes, and other behavior problems encountered in the school setting. (Fall, spring, summer)

541 Introduction to Clinical Psychology. 3 hours.

An introduction to methods and research in clinical psychology with an emphasis upon the use of clinical reports prepared for schools and clinics. (Spring, summer)

550 Personality Theory. 3 hours.

A survey of basic psychological principles under-

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lying the study of personality in relation to a social environment. Among the topics discussed are: theories of personality, the process of socialization of the individual, factors influencing adjustment to social environment. (Fall, summer)

551 Social Psychology of Organizations. 3 hours.

Designed to provide an understanding of the dynamics of groups and organizations. A survey of current theory and research in psychology of organizations. (Fall, spring, summer)

552 Advanced Social Psychology. 3 hours.

Prerequisites: Graduate standing and permission of instructor. The behavior of the individual is investigated in relation to social contexts. An in-depth analysis centers around such topics as group dynamics, attitude formation and change, social influence processes, socialization and language use in communication. (Fall, spring)

560 Individual Assessment — I. 3 hours.

Prerequisites: Graduate standing and permission of instructor.

The course will involve administration of the WICS, WAIS, WPPSI, BINET, and other individually administered tests used as basic tools in education, occupational guidance and clinical diagnosis. (Fall)

561 Individual Assessment — II. 3 hours.

Prerequisites: Graduate standing and permission of instructor. The course will involve the interpretation of the tests commonly used in educational, vocational guidance and clinical diagnostics. Effective report writing and basic clinical practice will be stressed. (Spring)

562 Practicum in Psychological Assessment. 1 to 3 hours.

Corequisite: Psychology 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.) (Fall, spring)

563 Test Construction and Psychometric Theory. 3 hours.

An introduction to psychometrics with an emphasis upon both technical and ethical problems which are involved in the use and construction of psychological measurement instruments. (Spring, summer)

570 Personnel Psychology. 3 hours.

Covers the development of dependent variables in applied behavioral research — measurement of performance effectiveness and applications in industry, education, etc. Current methods in selection and classification, testing, interviewing, and training are reviewed. (Fall)

580 Advanced Physiological Psychology. 3 hours.

Prerequisite: Graduate standing and permission of instructor.

Provides a knowledge of anatomy of the nervous system, relationships among the components of the nervous system and behavior, and the current theories of physiological psychology. Training in physiological research techniques such as electrical recording and electrical and chemical stimulation will be given. (Alternate years)

581 Laboratory in Advanced Physiological Psychology. 3 hours.

Corequisite: Psychology 580.

Familiarity with physiological techniques of electrical recording and electrical chemical stimulation will be given. (Alternate years)

590 Readings or Research in Psychology. 1 to 3 hours.

Prerequisite: Departmental permission only.

Individual programs of reading or conduct of research studies. Arrangements must be made for supervision before enrollment in this course. (On demand)

591 Internship in College teaching. 1 to 2 hours.

Prerequisite: Permission only.

A study of the problems and methods of teaching at the college level. Students enrolled in this course will be concurrently teaching a college course in introductory or general psychology. (On demand)

592 Seminar and Field Experiences in School Psychometry. 3 hours.

Prerequisites: Graduate standing and permission. A professional seminar and field experience for school psychometrists and psychologists to be taken during the student's last semester in residence. This course will involve staff and students from allied specialists such as counselor education, special education, reading and school administration. Comprehensive pupil personnel services will be emphasized, with the school psychometrist as a working member of the educational-diagnostic team composed of the teacher, counselor, principal, pupil, parent and psychometrist. Field experiences in consultation, testing, curriculum development and educational program evaluation will be an integral part of this course. (On demand)

599 Thesis Research and Writing. 6 hours.

599c Maintaining Matriculation. 1 to 6 hours.

640 Psychopathology. 3 hours.

Prerequisite: Permission only.

A descriptive and theoretical survey of the 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. Experimental studies including the experimental induction of abnormal behavior in animals will be reviewed. (Fall)

PSYCHOLOGY**641 Clinical Interviewing and Psychotherapy I.****3 hours.**

Prerequisite: Permission only.

A study of selected theories and techniques of psychotherapy and counseling involving academic, vocational, learning, and emotional problems. Consideration of group therapy, research, clinical topics, and professional and ethical issues. Course experiences include role playing, tape recorded interviews, and analysis of case materials. (Fall)

642 Clinical Interviewing and Psychotherapy II.**3 hours.**

Prerequisite: Psy. 641. Permission only.

A continuation of 641 with an emphasis upon group, family and marital psychotherapy. (Spring)

660 Psychological Evaluation I. 3 hours.

Prerequisite: Psy. 560. Permission only..

An introduction to personality diagnosis using objective and projective techniques with an emphasis upon current research interpretation, and communication of assessment information. (Fall)

661 Psychological Evaluation II. 3 hours.

Prerequisite: Psy. 660. Permission only.

A continuation of 660 with emphasis upon the integration of data obtained through various assessment instruments and techniques. Focus on specialized procedures for the evaluation of personality, functional disorders, perceptual-motor problems, and organic and intellectual deficit in clinical, educational, and rehabilitation settings. (Spring)

662 Practicum in Psychological Practice. 1 to 3 hours.

Students enrolled in Psy. 641, 642, 660, or 661 will receive supervised practice in schools, clinics, specialized training centers and hospitals. Those preparing careers in school or clinical psychology will enroll in 662 for a minimum of two semesters. (Fall, spring)

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

400G History and Systems of Psychology. 3 hours.

Prerequisite: Nine hours in Psychology.

This course reviews the main historical systems of psychology; the introspectionist, functionalist, purposive, psychanalytic, behaviorist, gestalt, existentialistic and humanistic psychologist. The purpose is to acquaint the student with recent history of psychology and to help him identify important systematic trends in contemporary writings in psychology and their underlying assumptions. This is a required course for all majors and highly recommended for minors. (Fall, spring, summer)

410G Psychology of Learning. 3 hours.

Prerequisites: Psychology 201 and 210 or permission of instructor.

Facts and principles of human and animal learning, especially as these have been treated in theories attempting to provide a general framework for understanding what learning is and how it takes place. (Fall, spring, summer)

411G Psychology of Sensation and Perception. 3 hours.

Prerequisites: Psychology 201 and 210 or permission of instructor.

This course covers basic data and theories of psychophysics, illusions and other topics fundamental to the understanding of sensory and perceptual processes. (Spring)

412G Psychology of Motivation and Emotion. 3 hours.

Prerequisites: Psychology 201, 210 or 410 or permission of instructor.

A study of the ways in which needs, desires and incentives influence behavior. Includes a review and critical analysis of research on motivational processes in human and animal behavior and the development of motivation and emotions. (Fall)

432G Psychology of the Gifted and Creative. 3 hours.

Prerequisite: Psychology 100.

The course covers identification of gifted children and adults with an emphasis upon the development of educational programs which maximize the development of giftedness. Included will be a critical review of research and literature in the areas of giftedness and creativity. (Fall, spring, summer)

440G Abnormal Psychology. 3 hours.

Prerequisites: Six hours in psychology.

An introductory course in the field of abnormal psychology with emphasis upon forms of abnormal behavior, etiology, developmental course, interpretations, behavioral manifestation and treatment programs. (Fall, spring, summer)

441G Psychological Aspects of Alcoholism. 3 hours.

Prerequisites: Psychology 440 and permission of instructor.

An intensive study of theories and research regarding alcoholism; emphasis on application of psychological theories to the treatment of alcoholism, and on psychological research regarding alcoholism. (Spring)

443G Behavior Theory and Application. 3 hours.

Prerequisite: Psychology 410 (Learning Theory), or enrollment in special education sequence.

A theoretical and applied understanding of behavior psychology (behavior modification). Both theory and application of techniques for modifying behavior in clinics, hospitals, child rearing and education will be covered. Cross-listed with Special Education 443. (Fall, spring, summer)

450G Introduction to Personality Theory. 3 hours.

Prerequisite: Nine hours of psychology or permission.

An overview of the major theoretical approaches

READING AND SPECIAL EDUCATION

to the study of personality. This will include theorists of historical note as well as contemporary theorists. The course will serve as a survey of major names, avenues of analysis and concepts in the field of personality. (Fall, spring, summer)

460G Methods and Research in Social Psychology. 3 hours.

Intensive study of research methods of social psychology and examination of several major research areas. Designed primarily for psychology majors and minors.

490G Special Topics in Psychology. 3 hours.

Advanced students will identify and conduct research and/or reading concerning problems in psychology under the direction of faculty members. (On demand)

DEPARTMENT OF READING AND SPECIAL EDUCATION

Curtis Englebright, Head

Graduate Faculty

Professor: C. Englebright

Associate Professors: J. Gibbs, R. Panchyshyn, E. Rich

Assistant Professors: C. Crooks, W. Greenlee,

R. Hicks, L. Ruberto, J. Vokurka

In conjunction with the Departments of Elementary and Secondary Education, the Department of Reading and Special Education offers endorsement programs in reading and in the following areas of special education: educable and trainable mentally retarded, learning disabilities, and emotionally disturbed.

A. The following curriculum leads to the M.A. in Education, standard certificate, and (with three years of successful teaching experience) endorsement as reading specialist. Applicants to the program must have had appropriate courses in reading methodology and tests and measurements. Required are:

1. Reading courses (12 hours):

- RDSE 519 Foundations of Reading Instruction
- RDSE 520 Diagnosis of Reading Disabilities
- RDSE 521 Correction of Reading Difficulties (Practicum)
- RDSE 522 Investigations in Reading

2. Nonprofessional education courses, individually prescribed (12 hours).

3. Educational foundations courses (6 hours):

- Ed. 500 Research Methods
- Ed. 503 or 580 Curriculum

B. The following curriculum leads to the M.A. in Education and endorsement of the elementary or secondary certificate for special education.

1. Educational foundations courses (6 hours):

- Ed. 500 Research Methods
- Ed. 503 or 580 Curriculum

2. Reading and special education courses (12 hours):

- RDSE 516 Exceptional Child: Perspectives and Issues
- RDSE 519 Foundations of Reading Instruction
- RDSE 520 Diagnosis of Reading Difficulties
- RDSE 518 Seminar: Problems in Special Education

3. Nonprofessional education courses, individually prescribed (6 hours). Students majoring in EMR plus TMR must take Psy. 443 — Techniques of Behavior Modification — for three of the six hours.

4. Student teaching or lecture in lieu of student teaching.

5. Special education courses in area of interest (9 hours).

a. Educable Mentally Retarded

- RDSE 517 Characteristics of Mental Retardation

Two courses from:

- RDSE 440G Diagnostic Instructional Planning

- RDSE 441G Methods and Materials for Teaching the Educable Handicapped Child

- RDSE 442G Methods and Materials for Teaching the Educable Handicapped Young Adult

b. Educable Mentally Retarded plus Trainable Mentally Retarded

- RDSE 415G Methods and Materials for Teaching the Trainable Mentally Retarded Child

- RDSE 517 Characteristics of Mental Retardation

- RDSE 441G Methods and Materials for Teaching the Educable Handicapped Child

- RDSE 442G Methods and Materials for Teaching the Educable Handicapped Young Adult

c. Learning Disabilities

- RDSE 440G Diagnostic Instructional Planning

- RDSE 447G Nature and Needs of Children with Learning Disabilities

- RDSE 448G Prescriptive Teaching for Children with Learning Disabilities

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d. Emotionally Disturbed	
RDSE 449G	The Emotionally Disturbed Child in the Classroom
RDSE 451G	Prescriptive Teaching for Individuals with Emotional Disturbance
Psyc. 440G	Abnormal Psychology or
Psyc. 540	Behavior Problems in Childhood and Adolescence

Graduate Courses in Reading and Special Education

516 The Exceptional Child: Perspectives and Issues. 3 hours.

Overview of the characteristics, needs, and problems of children who are atypical in the mental, physical, sensory, emotional, and social areas of development.

517 Characteristics of Mental Retardation. 3 hours.

Prerequisite: RDSE 516.

In-depth study of issues in mental retardation including classification, etiology, psycho-educational characteristics, sociological aspects, and programs.

518 Seminar: Problems in Special Education. 3 hours.

Prerequisite: RDSE 516.

In-depth study of relevant issues in Special Education. Extensive and direct classroom experiences to develop awareness of and sensitivity to educational needs.

519 Foundations of Reading Instruction. 3 hours.

An analysis of the reading process with special emphasis upon the psychological and physiological foundations of the reading act. Required in the program leading to standard certification unless an advanced course in reading has been completed on the undergraduate level.

520 Clinical Diagnosis of Reading Disabilities. 3 hours.

A study of the nature and causes of reading disabilities and investigation of general and specific principles and approaches to diagnosis. Through actual case studies students will use both group and individual tests in diagnosis. The interpretation of these tests and recommendations for remediation will be developed.

521 Correction of Reading Difficulties (Practicum). 3 hours.

The three primary areas of study in this course are: development of instructional techniques for use with individuals or groups involved in remedial reading instruction; investigations into materials and procedures for remedial reading instruction; participation in clinical experiences with remedial students.

522 Investigations in Reading. 1, 2, or 3 hours.

Prerequisite: Permission of instructor.

A comprehensive investigation of the research and descriptive literature in the field of reading on an individual basis.

523 Diagnostic Reading Procedures for Classroom Teachers. 3 hours.

Emphasis is on practical methods of reading appraisal, diagnostic procedures, and materials essential for developing teaching strategies in reading instruction to meet the needs of children on individual, small group, and large group bases.

620 Advanced Diagnosis of Reading Problems. 3 hours.

A laboratory course designed to give experience in advanced testing materials in diagnosing severely retarded readers.

621 Advanced Reading Correction Practicum. 3 hours.

A laboratory course designed to give individual and small group instruction to children with severe reading problems.

624 Seminar in Reading Problems. 3 hours.

An in-depth study of the research and descriptive literature related to specific reading problems.

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

415G Methods and Materials for Teaching the Trainable Mentally Retarded Child. 3 hours.

420G Reading in the Primary Grades. 3 hours.

Prerequisite: Education 220.

A second reading course designed to offer a detailed view of the principles and methodologies in use today at the primary (K-3) school levels.

421G Reading in the Intermediate Grades. 3 hours.

Prerequisite: Education 220.

A second reading course designed to offer a detailed view of the principles and methodologies in use today at the intermediate (4-6) school levels.

440G Diagnostic Instructional Planning. 3 hours.

Prerequisite: Sequential enrollment in Special Education Program.

An intensive approach to the diagnosis and remediation of specific impairments to the learning process in children and youth. The course will familiarize the student with the use of various tests, instructional planning and evaluation methods appropriate to children with learning disabilities.

441G Methods and Materials in Teaching the Educable Handicapped Child. 3 hours.

Prerequisite: Sequential enrollment in Special Education Program.

Modern trends in teaching the mentally retarded with emphasis on objectives, methodology and materials in effective curriculum planning for the retarded.

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442G Methods and Materials in Teaching the Educable Handicapped Young Adult. 3 hours.

Prerequisite: Sequential enrollment in Special Education Program.

A focus on methodology, materials and curriculum for the older retarded individual. Emphasis will be on programming which will lead to successful vocational and social adjustment for the young adult retardate.

443G Behavior Theory and Application. 3 hours.

Cross-listed with the Department of Psychology.

444G Reading Instruction in Junior and Senior High Schools. 3 hours.

The principles, psychology and methodologies for teaching the general and the specialized reading skills in the secondary grades.

447G Nature and Needs of Children with Learning Disabilities. 3 hours.

An in-depth review of the characteristics and needs of children who have learning disabilities or who have neurological, visual, or motor handicaps. Particular attention will be directed toward current issues relating to overall programming for these children in school and society.

448G Prescriptive Teaching for Children With Learning Disabilities. 3 hours.

A comprehensive review of the affective and cognitive processes used in prescriptive teaching with learning disabled children. Particular attention will be directed toward current methods and materials relating to overall programming for these children.

449G The Emotionally Disturbed Child in the Classroom. 3 hours.

To provide an in-depth study of emotional disturbance in the classroom including causes, characteristics, and implications for educational planning.

451G Prescriptive Teaching for Individuals with Emotional Disturbance. 3 hours.

A study of intervention techniques for the teacher of the emotionally disturbed. Included are strategies pertinent to assessment, curriculum, methodology, and behavioral management of the emotionally disturbed individual.

460G Special Problems. 1 to 3 hours.

Designed to permit the mature special education student to pursue a thorough investigation of individual interest in the field.

DEPARTMENT OF SECONDARY EDUCATION

Paul Power, Head

Graduate Faculty

Professors: K. Brenner, A. Laman, R. Pankratz, P. Power, J. Scarborough

Associate Professors: J. Johnson, J. Koper, R. Melville, W. Nolan, K. Taylor

Assistant Professors: G. Dillingham, E. Hanes, J. Pollock, D. Reeves

Degrees Offered: Master of Arts in Education (Secondary, Junior High/Middle School) and Specialist in Education for Secondary Teachers.

Master of Arts in Education

General requirements include a minimum of nine semester hours of professional education courses, individually prescribed, 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

Note: If only nine hours in professional education are completed for the secondary education option, all nine hours must be in courses open only to graduate students.

Master of Arts in Education (Secondary major or minor)

The master of Arts in Education degree at the secondary level permits the following majors: agriculture, art, biology, business education and office administration, chemistry, economics, English, English and allied language arts area, French, geography, German, government, health, health and safety, history, home economics, industrial education, library science, mathematics, math-science area, music, physical education, psychology, science area, secondary education, social science area, Spanish, and speech.

This program permits minors in the following areas: agriculture, art, biology, business education and office administration, chemistry, 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, secondary education, sociology, Spanish, speech and theatre.

The standard high school certificate, valid for ten years, shall be issued to a person who meets the requirements of law and general regulations of the State Board of Education and files a transcript of credits showing the completion of the four-year curriculum for the training of high school teachers as prescribed by the Council on Public Higher Education and who also completes the requirements for a master's degree in a standard graduate school as prescribed.

In addition to the general requirements listed above, the curriculum leading to the standard high school certificate requires the following:

1. At least 12 of the required 30 hours are in subject matter courses and are selected to strengthen the academic specialization and/or to further develop the general education background of the secondary teacher. Persons holding the provisional high school certificate for Vocational Agriculture may satisfy this requirement with a minimum of six rather than twelve hours.
2. The remaining courses are selected on the basis of the individual needs of the teacher.

Master of Arts in Education

(Junior High/Middle School)

The standard junior high certificate, valid for ten years, shall be issued to a person who meets the requirements of law and general regulations of the State Board of Education and files a transcript of credits showing the completion of the four-year curriculum for the training of junior high/middle school teachers as prescribed by the Council on Public Higher Education and who also completes the requirements for a master's degree in a standard graduate school as required.

In addition to the general requirements, the curriculum leading to the standard junior high certificate requires the following:

1. A minimum of 12 hours selected to strengthen the academic specialization of the junior high school teacher.
2. The remaining hours are selected on the basis of the individual needs of the teacher.

Specialist Degree in Education (Secondary)

The Specialist Degree in Education for secondary teachers, an advanced professional degree involving a planned program of study beyond the master's degree, is designed to help secondary teachers become more competent in their specialized areas. The program (1) provides opportunities for further study in depth and/or breadth in the teaching field, (2) increases understanding of human behavior and the processes of teaching and learning, (3) deepens and broadens teacher competencies in supportive areas, and (4) stimulates understanding and utilization of research in the field of secondary education. Available concentration areas

SECONDARY EDUCATION

are science, social science, language arts, and vocational education.

Applicants must meet the admission requirements of the Graduate College, have two years of successful teaching experience, and submit recommendations from two graduate faculty members and two professional associates in administrative or supervisory roles.

The specialist project must be related to secondary teaching.

Graduate Courses in Secondary Education

528 Seminar in the Teaching of Secretarial Subjects. 3 hours.

Materials, methods, techniques, and devices for teaching typewriting, shorthand, and the related skilled subjects. Required of graduate students majoring in business education. 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. Required of graduate students majoring in business education. Review and application of research findings to this area.

530 Seminar in English Education. 3 hours.

Prerequisite: Permission of the instructor. A graduate seminar designed primarily for experienced English teachers. Exploration of current methods and materials for junior and senior high school English courses; research and professional trends including rhetoric, psycholinguistics, lexicographics and transformational grammars.

531 Seminar in Art Education. 3 hours.

Prerequisite: Permission of the instructor. A graduate seminar designed primarily for experienced art teachers and art specialists (supervisors, consultants, coordinators, and directors of art). Exploration of 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 the instructor. A graduate seminar designed primarily for experienced foreign language teachers. Exploration of 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 the instructor. A graduate seminar designed primarily for experienced Industrial Arts teachers. Course content includes historical development, exploration of curricular trends and innovations, methods and materials of teaching, and current research and problems relating to the teaching of industrial arts.

SECONDARY EDUCATION

534 Seminar in Mathematics Education. 3 hours.

Prerequisite: Permission of the instructor.

A graduate seminar designed primarily for experienced secondary school mathematics teachers. Designed to make teachers aware of newer concepts in curriculum and methods of instruction, current research and problems in mathematics education.

535 Seminar in Music Education. 3 hours.

A graduate seminar designed primarily for experienced music teachers. A consideration of the historical, philosophical and psychological foundations of music education: the application of the principles of education to the music program. Major emphasis is placed 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.

A detailed study and integration of 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. Opportunities for intensive investigation in specific pedagogical problems are afforded through the modalities of lectures, discussion groups, demonstrations, participation and use of audiovisual aids.

537 Seminar in Science Education. 3 hours.

Prerequisite: Permission of instructor.

A graduate seminar primarily for experienced science teachers. Designed to keep the career science teacher up-to-date on the changes in the teaching of science. Areas considered include 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.

A graduate seminar designed primarily for experienced secondary school social studies teachers. Deals with newer concepts in curriculum and methods of instruction and with current research in social studies education.



539 Seminar in Agriculture Education. 3 hours.

Study of current and advanced 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: Home Economics 572 or consent of instructor.

A graduate seminar designed primarily for experienced home economics teachers. Current trends in family life education with emphasis on individualized instruction, team teaching and audio-visual aids and their use in improved learning.

541 Seminar in School Libraries. 3 hours.

A graduate seminar designed primarily for experienced school librarians. Areas considered include historical development, exploration of curricular trends and innovations relating to school library services, organizations for library services, materials and equipment available, physical facilities, professional organizations, and current research and problems in school librarianship.

542 Seminar in Speech Education. 3 hours.

A graduate seminar designed primarily for experienced teachers. Course content includes historical development, exploration of curricular trends and innovations and current research and problems related to the teaching of speech.

543 Interactive Teaching Skills. 3 hours.

Provides the opportunity for elementary and secondary teachers to develop interactive teaching skills by selecting and completing two of four minicourses developed by Far West Laboratory for Educational Research and Development.

544 Classroom Teaching Strategies. 3 hours.

Provides the opportunity for elementary and secondary teachers to extend their repertoire of teaching strategies by completing two of five minicourses developed by the Far West Laboratory for Educational Research and Development.

571 Junior High School Curriculum. 3 hours.

This course provides an opportunity for teachers, supervisors, curriculum consultants, and administrators to study the educational programs especially designed for the young adolescent. Emphasis is placed on functions organization, planning and evaluation of the junior high/middle school curriculum with attention to special curriculum areas.

580 The Curriculum. 3 hours.

The philosophy, the principles, the problems, and the practices of curriculum making.

599 Thesis Research and Writing. 6 hours.

599c Maintaining Matriculation. 1 to 6 hours.

699 Specialist Project. 6 hours.

The specialist project, a form of independent

JOINT-DOCTORAL PROGRAM

study, may be a field project, a creative study, or a formal experimental type of research culminating in a scholarly report.

699c Maintaining Matriculation. 1 to 6 hours.

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

455G The Junior High School. 3 hours.

This course attempts to develop an understanding of the junior high/middle school and its role in American education. Consideration will be given to the philosophy, functions, and total program of early adolescent education, including curriculum, guidance, student activities, personnel, and administration.

477G Materials and Methods in Library Sciences.

3 hours.

Prerequisites: Education 280, Psychology 220. Laboratory experiences related to library science, affording the prospective librarian additional insight into strengthening and broadening future experiences in library science.

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. The applicant must meet the entrance requirements of Western and the Graduate School at the University of Kentucky. In addition, admission standards of the doctoral program of the UK College of Education must be met.

Application to enter the joint doctoral program 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

Rank II Non-Degree Program

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. Course work taken by correspondence is not accepted.

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—School Administration (the professional certificate for school administration and supervision endorsed for school superintendent)
3. Rank I—Standard Guidance (leading to standard certification in guidance)

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.

JOINT-DOCTORAL PROGRAM

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.

Rank I — Teacher's Program

(Based upon the Master's Degree)

A minimum of 24 hours of the total 60 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

(Based upon Fifth Year Non-Degree Classification)

A minimum of 30 hours of approved course work, in addition to the requirements for Rank II classification, must be completed. Of this 62 hour total, at least 24 hours must be in an academic area apart from professional education. These hours shall be in the candidate's major or minor, or area of preparation, or in supporting courses from disciplines as approved by this institution.

Rank I — School Administration Program

Students following a program for endorsement under the professional certificate for school administration and supervision must possess the master's degree and complete standard elementary or standard high school certification before requesting the endorsement. As a general rule, Western will require 21 of the total 60 hours (on the Master's and Rank I) to be taken in the behavioral sciences or subject matter fields other than professional education.

Rank I — Guidance Program

Students holding the provisional guidance certificate and having at least one year's experience as a school counselor may complete the standard certificate for guidance counselors by completing this program. As a general rule, Western will require 21 of the total 60 hours (Master's and Rank I) to 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 the Department of Counselor Education).

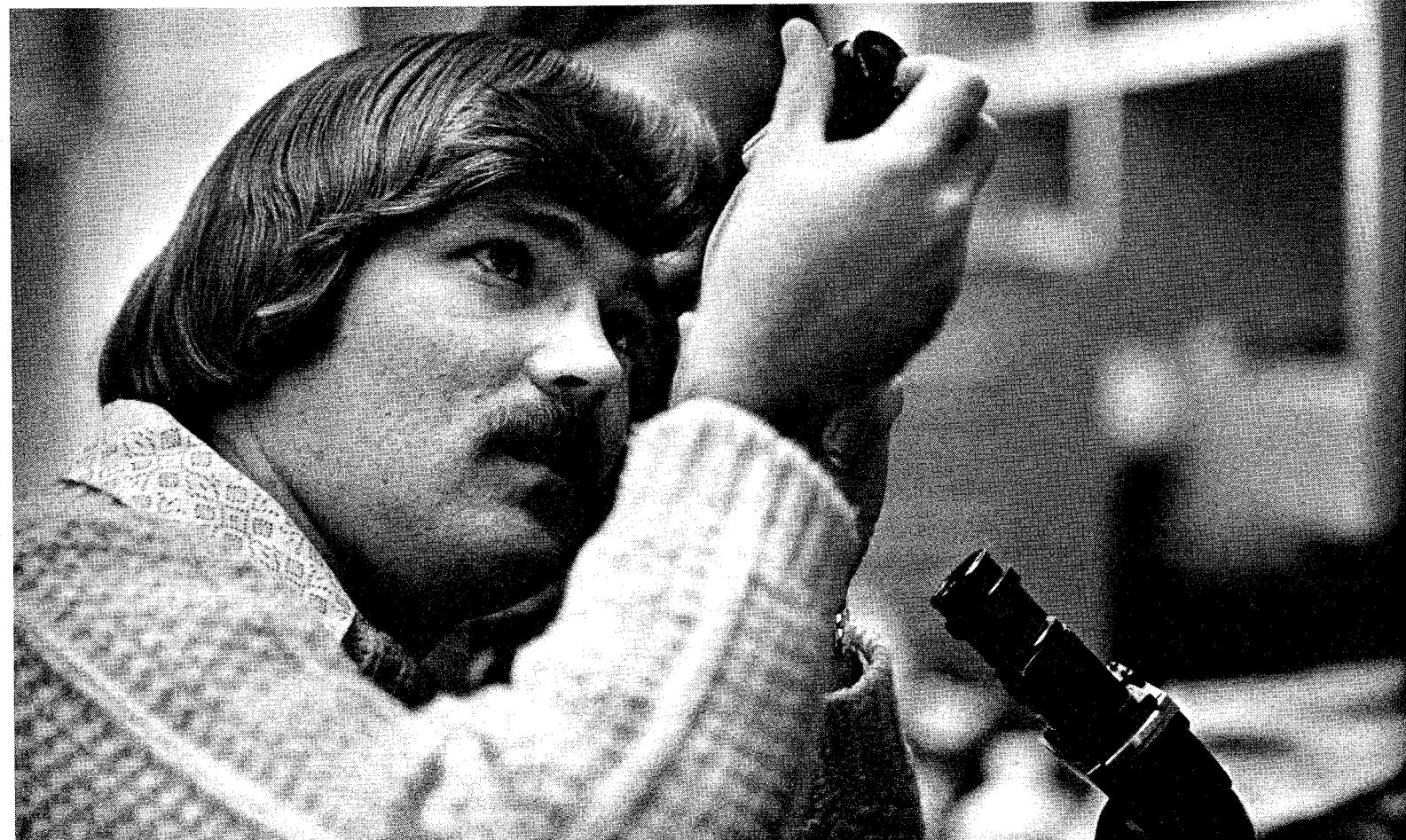






OGDEN COLLEGE

Founded here, 1877, with funds left by Robert Ogden, local businessman. Filled educational gap, as there were no public schools here until 1882. Prep school accredited in 1919. Ogden's criteria: regular attendance, gentlemanly deportment, diligent study. Consolidated with Western Kentucky University, 1927. Its name retained in the Ogden College of Science and Technology.



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 Arts in College Teaching
(Biology, Chemistry, Geography, Mathematics)
Master of Public Service (City and Regional Planning)
Master of Science (Agriculture, Biology, Chemistry,
Geography, Mathematics, Physics)
Master of Science in Engineering Physics

JOINT-DOCTORAL PROGRAMS

(With the 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

AGRICULTURE

DEPARTMENT OF AGRICULTURE

L. D. Brown, Head

Graduate Faculty

Professors: L. D. Brown, E. Gray, W. Hourigan, R. Johnson, J. McGuire, W. Stroube

Associate Professors: G. Jones, W. Normand, J. Worthington

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 core area of nine to 12 hours including Public Affairs 540 — Public Administration (which is required of all).

The remaining hours of the core may be selected from the following courses:

- Econ. 550—Government Financial Policy and Administration
- Geog. 580—Problems in Urban Geography
- Govt. 511—Seminar in State and Local Government
- Soc. 565—Studies in the Community
- Psy. 551—Social Psychology of Organizations

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 Secondary Education)

Graduate Courses in Agriculture

533 Physiology of Lactation. 3 hours.

Prerequisites: Agriculture 243, 330 or Biology 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, physiology and mechanics of the milking process. Lecture, 2 hours; lab, 2 hours.

545 Ruminant Nutrition. 3 hours.

Prerequisites: Agriculture 448, Biology 446 or equivalent, or permission of instructor. Rumen development and function, products of fermentation, nutrient requirements, absorption and metabolism, symptoms of deficiency and toxicity, basic principles of ruminant nutrition and their application to the production of milk, meat and wool. Lecture.

546 Advanced Animal Breeding. 3 hours.

Prerequisites: Agriculture 446 and 428 or permission of instructor. Application of population genetics to the economic improvement of farm animals, phenotypic and genetic relationships, selection aids and role of selection in changing populations, systems of mating, formulation and application of breeding plans. Lecture, 2 hours; lab, 2 hours.

547 Advanced Animal Nutrition. 3 hours.

Prerequisites: Agriculture 448, Biology 446 or equivalent, or permission of instructor. A study of the individual nutrient requirements of monogastric animals, structure, metabolism and function of each nutrient class, interrelationship of nutrient classes, deficiency and toxicity symptoms, practical application to current nutritional problems. Lecture.

551 Advanced Soil Fertility. 3 hours.

Prerequisite. Agriculture 351 or permission of instructor.

Evaluation of soil fertility and fertilizers, theory and application; soil-plant relationships; composition and properties of soil in relation to ion intake, nutrition and growth of plants. Lecture.

561 Agricultural Production Economics. 3 hours.

An economic analysis of agricultural production including production functions, cost functions, programming and decision-making principles, and the application of these principles of resource allocation in Agriculture. Lecture.

583 Curriculum Development and Determining Content in Vocational Agriculture. 3 hours.

For beginning teachers of vocational agriculture. Consists of principles of curriculum development, a local survey, and development of a course of study.

589 Special Problems in Agriculture Education. 1 to 3 hours.

Prerequisite or corequisite: Student teaching. Supervised individual study in selected fields of vocational agriculture education. May be repeated to a maximum of 6 hours.

590 Experimental Design and Data Analysis. 3 hours.

Prerequisite: Agriculture 491 or permission of instructor.

Statistical considerations in design of experiments; covariance, multiple regression, factorial experiments, individual degrees of freedom, incomplete block designs, experiments repeated over space and time; tests of reliability, significance and confidence levels. Lecture.

597 Special Problems in Agriculture. 1 to 3 hours.

Prerequisites: Graduate standing and permission of instructor.

Supervised individual study in selected fields of agriculture. May be repeated to a maximum of 9 hours.

598 Seminar. 1 hour.

Reports and discussions of 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: Graduate standing and permission of instructor.

Special topics to acquaint the advanced student with the more significant problems and scientific developments of current interest in agriculture. Special topic titles assigned. Lecture and assignments variable with credit. May be repeated to a maximum of 10 hours with change in title and content.

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

400G Plant Physiology. 3 hours.

Prerequisites: Biology 248, 249 and two semesters of chemistry.

A study of the function of plant systems. Lecture, 2 hours; lab, 2 hours.

410G Crop Protection. 3 hours.

Prerequisites. Chemistry 107 or equivalent and two plant science courses.

General principles applicable to the control of insects, weeds, diseases, and animal pests which reduce the yields or values of Kentucky crops. Cultural, biological, and other means of control are included.

411G Turfgrass Management. 3 hours.

Prerequisite: Agriculture 110.

A study of turfgrass, including adaptation, identification, uses and fundamental principles essential for establishing and maintaining quality turf in lawns and recreational areas.

412G Modern Fruit Science. 3 hours.

Prerequisite: Agriculture 311 or 312 or permission of instructor.

This course analyzes selected problems in planting, management, production and varieties of deciduous fruits and nuts for the student.

413G Principles and Practices of Plant Propagation. 3 hours.

Prerequisite: Biology 248 or Agriculture 312 or permission of instructor.

This course provides the fundamental principles and basic techniques to plant propagation.

414G Plant Breeding. 3 hours. (Cross-listed with Biology 414)

Prerequisite: Biology 327 or permission of instructor.

A study of the methods and techniques used in the application of genetic principles to the improvement of crop plants.

418G Landscaping For Modern Living. 3 hours.

Prerequisite: Agriculture 312 or permission of instructor.

This course has something for everyone. It offers a way to take house and garden, building materials and plant materials, the open sky and the stars at night, and blend them all to create a deeply satisfying space for everyday living.

419G Vegetable Production. 3 hours.

Prerequisites: Agriculture 110, 250, and Biology 148.

A study of the production and utilization of vegetable crops with emphasis on the environmental factors influencing the growth and handling of vegetables.

AGRICULTURE

421G Forage Crops. 3 hours.

Prerequisites: Agriculture 110, 250, and Biology 148.

Distribution, improvement, establishment, production and storage of forage crops, soil-plant-animal complex as it relates to the morphology, physiology and utilization of forage.

422G Field Crops. 3 hours.

Prerequisites: Agriculture 110, 250, and Biology 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: Biology 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: Agriculture 140.

The course is a study of dairy cattle in a modern agriculture. The course deals with the nutrition, breeding and management of dairy cattle with practical application to commercial dairy herds.

438G Dairy Microbiology. 4 hours.

Prerequisites: Biology 207 or equivalent, or permission of instructor.

Microbiological principles and their application to production and processing of milk and milk products, identification, enumeration and control of microorganisms important in dairy products.

443G Physiology of Reproduction in Domestic Animals. 3 hours.

Prerequisite: Agriculture 243 or Biology 330 or permission of instructor.

Physiology and endocrinology of reproductive systems; anatomical, physiological, and biochemical basis of reproduction; factors affecting means of improving efficiency of reproduction, artificial breeding, synchronized estrus and related topics.

446G Animal Breeding. 3 hours.

Prerequisites: Agriculture 140 and Biology 148. Application of genetic and statistical principles to breeding and improvement of farm animals; the role of selection in changing populations; effect of different mating systems upon improvement of farm animals.

448G Principles of Animal Nutrition. 3 hours.

Prerequisite: Agriculture 345.

This course deals with the principles of nutrition basic to animal feeding, the chemical and physiological aspects of nutrition, the nutrient requirements for normal body functions, techniques used in nutrition research and reading in current literature.

449G Laboratory Methods and Techniques in Animal Nutrition. 3 hours.

Prerequisites: Agriculture 448, Chemistry 122 or equivalent, or permission of instructor.

Demonstration and Practical experience in laboratory methods for determining major minerals and vitamins in feeds, proximate analysis of feeds, digestion and balance studies with laboratory animals, products of fermentation, feed residues and contamination. Lecture, 1 hour, lab, 4 hours.

450G Soil Chemistry. 3 hours.

Prerequisites: Agriculture 250, Chemistry 107 or 122, or permission of instructor.

Analytical techniques used in soil chemistry and soil fertility studies and nutrient determination; colloidal systems; chemical properties related to plant nutrition.

452G Soil Microbiology. 4 hours.

Prerequisites: Agriculture 250 and Biology 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: Agriculture 250.

Soil origin; methods of soil survey; classification schemes; profile description, mapping and interpretation of soil survey information with primary emphasis on Kentucky soils.

454G Land-Use and Conservation. 3 hours.

Prerequisites: Agriculture 250 or permission of instructor.

Economic utilization of land for agricultural recreation and public purposes based on location and capacity characteristics; interpretation and application of soil conservation, public and industrial use; practice in designing land-use maps.

455G Soil Physics. 3 hours.

Prerequisites: Agriculture 250, Physics 201 and 207, or permission of instructor.

Relation of physical properties of soil to plant growth; particle-size distribution, soil structure, clay minerals, soil moisture, rheological properties and soil temperature.

460G Agricultural Policy. 3 hours.

Prerequisite: Agriculture 260.

This course analyzes the principles underlying agricultural policy; the place of agriculture in the national economy; objectives of agricultural policy and the means of reaching them; appraisal and proposed agricultural programs; legislation for economic action.

461G Advanced Farm Management. 3 hours.

Prerequisite: Agriculture 361 or permission of instructor.

BIOCHEMISTRY

Emphasizes identification, analysis, and solution of problems of farm organization and operation; how to evaluate and incorporate innovations into new or ongoing operations; case studies and field trips to situation farms in South Central Kentucky. Lecture, 2 hours; lab, 2 hours.

463G Agricultural Finance. 3 hours.

Prerequisite: Agriculture 361 or permission of instructor.

This course is a study of farm finance problems, credit institutions, capital requirements, investment decisions, budgeting techniques, operation of lending agencies and alternative means of acquiring capital.

470G Agricultural Materials Handling. 3 hours.

Prerequisite: Agriculture 374 or permission of instructor.

The investigation of principles of operation, the functional analysis of, and the design of agricultural handling systems from harvesting to the utilization of the crop. Includes conveyance, drying, sizing, mixing and sorting machines used for the handling of farm crops and animals.

471G Farm Machinery. 3 hours.

Prerequisite: Agriculture 270 or permission of instructor.

A study of the 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.

A study of the design, principles, operation, selection and management of agricultural tillage and harvesting equipment.

478G Geography of Agriculture. 3 hours.

Prerequisite: Geography 250 or Agriculture 260, or permission of instructor.

A study of the regional patterns of world agricultural production. Ecological and economic factors and cultural preferences are used in explaining the spatial patterns of crops and agricultural types. Present and potential production are evaluated in terms of regional and world needs.

482G Development of Agricultural Resources for Rural Recreation. 3 hours.

Principles in developing physical facilities for various recreational enterprises. Topics to include enterprise selection, program planning, site selection, financing, and construction of facilities.

486G Agriculture Sales and Service. 3 hours.

Exploration, investigation, and application of principles and concepts of sales and service applied to agriculture. A credit and personal improvement course designed for agri-business and educators working with sales and service of agricultural inputs and products.

487G Methods in Teaching Vocational Agriculture.

3 hours.

Course organization, methods, farming programs, employment training, and Future Farmers of America activities. Departments are visited to observe programs and results.

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: Mathematics 100 or permission of instructor.

Basic concepts of statistical models and use of samples, variation, statistical measures, distributions, tests of significance, analysis of variance and elementary design, regression, correlation and chi square as related to interpretation and use of scientific data.

BIOCHEMISTRY

Graduate Faculty

Associate Professors: R. Farina, D. Hartman, M. Houston, F. Toman

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 Intermediate Metabolism. 3 hours.

Prerequisite: Biochemistry 446.

BIOLOGY

An intensive study of the metabolic pathways of carbohydrates, lipids, and proteins. Lecture. (Fall)

563 Enzymology. 3 hours.

Prerequisites: Biochemistry 446 and 447.

An applied study of enzymes including kinetics and mechanisms for reactions of biological significance. Lecture. (On demand)

564 Enzymology Laboratory. 1 hour.

Corequisite or prerequisite: Biochemistry 563. A laboratory study of the techniques of enzyme isolation and purification coupled with kinetic studies. Three hours per week. (On demand)

580 Plant Biochemistry. 3 hours.

Prerequisite: Chemistry 314 or 340.

A study involving the occurrence, properties, function, and metabolism of many organic compounds found in plants; includes a detailed study of enzymes, carbohydrates, plant pigments, photosynthesis, nitrogen metabolism, and plant growth regulators. 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: Chemistry 314 or 340.

A study of biochemical compounds and their role in intermediary metabolism. Special topics include biochemical energetics and coenzyme mechanisms. Lecture. (Fall, spring)

447G Biochemistry Laboratory. 2 hours.

Corequisite or prerequisite: Biochemistry 446.

A basic laboratory study involving selected experiments which illustrate biochemical principles including separation, identification and chemical properties of carbohydrates, lipids, proteins, and enzymes. Six hours per week. (Spring)

462G Bioinorganic Chemistry. 3 hours.

Prerequisite: Chemistry 314 or 340.

A study of the coordinating properties and reactivity of metal ions in living organisms. Metal ion toxicity and detoxification, clinical uses of metal chelates in biological systems, and functions of various metalloenzymes will be discussed. Lecture. (Fall)

467G Biochemistry II. 3 hours.

Prerequisite: Biochemistry 446.

A study of the reactions of living systems and an introduction to the mechanisms and energetics of metabolism. Lecture. (Spring)

DEPARTMENT OF BIOLOGY**Ernest O. Beal, Head****Graduate Faculty**

Professors: D. Bailey, E. Beal, G. Dillard, J. Jenkins, R. Prins, H. Puckett, H. Shadowen

Associate Professors: T. Coohill, L. Elliott, S. Ford, L. Gleason, M. Houston, R. Hoyt, K. Nicely, J. Skean, F. Toman, J. Winstead, A. Yungbluth

Adjunct Professor: L. Lockwood

Graduate Degrees Offered: Master of Science in Biology, Master of Arts in College Teaching, 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.

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 College Teaching (Biology)

This program is designed especially for the preparation of community and junior college teachers. At least 24 of the required 30 hours of coursework must be in biology and must include Biology 516—Investigations in Biology (2 or 3 hours) as an introduction to research. The remaining hours may be selected from the graduate offerings of other departments. The research tool requirement may be met as outlined under the M.S. program. Teaching experience is a required part of the

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program. To meet this requirement the student usually enrolls in Biology 600 (Internship in College Instruction) and instructs, under supervision, a course in general biology.

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 M.A. in Education program. Students following this option must have all biology courses approved by the appropriate advisor in the Department of Biology.

Doctor of Philosophy

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 detailed information about the program from:

Dr. E. O. Beal
Department of Biology
Western Kentucky University
Bowling Green, Ky. 42101
OR

Dr. B. L. Monroe
Department of Biology
University of Louisville
Louisville, Ky. 40208

Adjunct Faculty (University of Louisville)

Professors: A. Hotchkiss, A. Krumholz, L. Monroe,
E. Neff, E. Wiedeman
Associate Professor: J. Karpoff

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. J. Winstead of the Department of Biology for additional information.

Graduate Courses in Biology**501 Biological Perspectives I. 3 hours.**

Prerequisite: Science area major or minor.

A course designed to acquaint in-service teachers with advances in the biological sciences and practical applications of biological principles. Major topics include the chemical and cellular basis of life, metabolism, reproduction, and development (not applicable to MS or MACT programs in biology). Lecture, 2 hours; lab, 2 hours. (Fall semesters and summer term of even-numbered years)

502 Biological Perspectives II. 3 hours.

Prerequisite: Science area major or minor; Biology 501 desirable.

A course designed to acquaint in-service teachers with advances in the biological sciences and practical applications of biological principles. Major topics include the origin and early evolution of life, viruses and monera, the plant kingdom, the animal kingdom, biological evolution, and ecology (not applicable to MS or MACT programs in biology). Lecture, 2 hours; lab, 2 hours. (Spring semesters and summer term of odd-numbered years)

505 Biogeography. 3 hours.

See Department of Geography and Geology.

511 Limnology. 4 hours.

Prerequisite: Permission of instructor.

A study of the 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: Biology 248 and permission of instructor.

A study of ecological concepts and their application to experimental approaches for studying the interaction of plants with their environment. Emphasis will be on population studies involving biochemical, physiological, and phenological approaches. 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.

Involves a research project completed under faculty supervision (not applicable to M.S. Plan A). (Every semester and summer)

527 Advanced Genetics. 4 hours.

Prerequisite: Biology 327 or permission of instructor.

A study of 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)

540 Algal Systematics and Ecology. 4 hours.

Prerequisite: Permission of instructor.

A study of the systematics and ecology of fresh-

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- water algae with an 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: Biology 408 or permission of instructor.
A study of the taxonomy and ecology of invertebrates in lakes, ponds, and streams. Lecture, 1 hour; lab, 4 hours. (Summers at Tech Aqua, campus on demand)
- 560 Advanced Parasitology. 4 hours.**
Prerequisite: Biology 460 or permission of instructor.
An intensive study on 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.
- 570 Immunology. 4 hours.**
Prerequisite: Permission of instructor.
An introduction to the biology of the immune response. Deals with the mechanism, manipulation, and effects of this major means by which higher animals maintain their organismic integrity. Lecture, 2 hours; lab, 4 hours. (Spring of even-numbered years)
- 580 Plant Biochemistry. 3 hours.**
Prerequisite: Chemistry 314 or 342.
A study involving the occurrence, properties, function, and metabolism of many organic compounds found in plants; includes a detailed study of enzymes, carbohydrates, plant pigments, photosynthesis, nitrogen metabolism, and plant growth regulators. Lecture. (Summer of odd-numbered years)
- 591 Aquatic Biology. 4 hours.**
Prerequisite: Permission of instructor.
An ecological and systematic study of the plant and animal communities of freshwater lotic and lentic habitats. Lecture, 2 hours; lab, 4 hours. (Fall of odd-numbered years)
- 592 Freshwater Ecology. 4 hours.**
Prerequisite: Permission of instructor.
A study of the principles of ecology employing the aquatic ecosystem as the area of investigation. (Summers on demand)
- 598 Graduate Seminar. 1 hour.**
A study of special topics in Biology with student participation. (Every semester)
- 599 Thesis Research and Writing. 6 hours.**
- 599c Maintaining Matriculation. 1 to 6 hours.**
- 600 Internship in College Instruction. 1 hour (may be repeated).**
A course designed for students in the M.A.C.T. program in Biology, in which the student is directed by a member of the staff in preparation of lectures, giving of lectures, and analyses of presentation and techniques. (Every semester and summer)
- 675 Advanced Topics in Biology. 1 to 3 hours.**
A course of study at the graduate level covering special or 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: Biology 248, 249, and two semesters of Chemistry.
A study of 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.**
A course in the fundamentals of electron microscopy including basic theory, techniques for specimen preparation and photography and operation of the electron microscope. An independent research project is required which necessitates interpretation of data obtained by using the electron microscope. Lecture, 2 hours; lab, 2 hours. (Every semester and summer)
- 407G Virology. 3 hours.**
Prerequisites: Biology 158 and 159, or permission of instructor.
A study of bacterial, animal, and plant viruses with special emphasis on the chemistry and replication of bacterial viruses. (Spring of even-numbered years, summer of odd-numbered years)
- 408G Invertebrate Zoology. 4 hours.**
Prerequisites: Biology 258, 259.
A survey of the phyla of invertebrate animals, including their taxonomy, morphology, physiology, development, and evolution. Lecture, 2 hours; lab, 4 hours. (Spring)
- 411G Cell Biology. 3 hours.**
Prerequisites: Biology 148, 149 and Organic Chemistry.
A lecture series emphasizing the morphological and chemical makeup of cells, the physical and chemical properties of the cell and the modern techniques for investigation of cellular functions. (Every semester and summer)

412G Cell Biology. 1 hour.

Pre/corequisite: 411 G.

A laboratory course correlated with Biology 411G. Two hours per week. (Every semester and summer)

416G Systematic Botany. 4 hours.

Prerequisite: Biology 348 or permission of instructor.

A study of variation, phylogeny, and classification of flowering plants including consideration of the major processes of plant speciation and the application of modern biosystematic procedures for obtaining and utilizing taxonomic data. Lecture, 2 hours; lab, 4 hours. (Summer of even-numbered years)

418G Mycology. 4 hours.

Pre/corequisites: A comparative morphological and physiological study of fungi. Lecture, 2 hours; lab, 4 hours. (Fall of odd-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: Biology 330, 331.

A course involving in-depth studies of selected systems and topics in physiology. Emphasis is placed on the biophysical approach. Lecture. (Spring)

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: Biology 258, 259, and permission of instructor.

A survey of the fishes of the world, their physiology, structure, behavior, and ecology. Special emphasis will be placed upon the collection and identification of freshwater species of Kentucky. Lecture, 2 hours; lab, 4 hours. (Fall of even-numbered years)

458G Fishery Biology. 3 hours.

Prerequisite: Permission of instructor.

A course dealing with various biological aspects of population of freshwater fishes. Emphasis will be directed toward reproduction and development, food and feeding habits, age and growth, population dynamics, pollution effects, culture techniques and fish survey. Lecture, 2 hours; lab, 2 hours. (Spring of odd-numbered years)

459G Mammalogy. 4 hours.

Prerequisites: Biology 258, 259.

A comprehensive study of the taxonomy, life history and ecology of the mammals. The laboratory work will consist of studies in the field as well as the collection and study of specimens in the laboratory. Lecture, 2 hours; lab, 4 hours.

460G Parasitology. 4 hours.

Prerequisites: Biology 258, 259.

A study of the morphology, physiology, life histories, control and economic significance of representative species. Lecture, 2 hours; lab, 4 hours. (Fall)

462G Bioinorganic Chemistry. 3 hours.

See Biochemistry.

464G Endocrinology. 3 hours.

Prerequisites: Biology 148 and either 195 or 258. Biology 330 recommended.

A comprehensive study of the structure and function of the endocrine glands, and their role in physiological communication and regulation. (Spring of even-numbered years)

465G Endocrinology Laboratory. 1 hour.

Corequisite: Biology 464G.

A laboratory course correlated with Biology 464G. Two hours per week (Spring of even-numbered years)

467G Biochemistry II. 3 hours.

See Biochemistry.

470G Pathogenic Microbiology. 4 hours.

Prerequisites: Biology 309, 310, and permission of instructor.

A study of the organisms causing disease with emphasis on bacteria. The course will survey pathogenic bacteria, viruses, rickettsiae, fungi and protozoa. Lecture, 2 hours; lab, 4 hours. (Fall of even-numbered years)

472G Food Microbiology. 4 hours.

Prerequisites: Biology 158 and 159 or 207 and 208. A study of the 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.

Prerequisite: Permission of instructor.

A consideration of special topics to acquaint the advanced students with significant problems and developments of current interest in biology. (Every semester and summer)

477G Morphology of Non-Vascular Plants. 4 hours.

Prerequisites: Biology 158, 159 and 248, 249.

A consideration of the structure, development and phylogenetic relationships of the algae, fungi and bryophytes. Lecture, 2 hours; lab, 4 hours. (Fall)

478G Morphology of Vascular Plants. 4 hours.

Prerequisites: Biology 248 and 249 or 477.

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A consideration of the structure, development and phylogenetic relationships of the primitive vascular plants, gymnosperms and angiosperms. Lecture, 2 hours; lab, 4 hours. (Spring of odd-numbered years)

485G Field Biology. 3 hours.

Prerequisite: Permission of instructor.

An intensive field experience on a specific biological topic, consisting of a two-week camping field trip to a geographical area of biological interest preceded by a four-day introductory session and followed by a one-day evaluation session. (Offered only on a 3 week basis during May or summer sessions).

491G Data Analysis and Interpretation. 3 hours.

See Department of Agriculture.

incoming graduate students in chemistry. These examinations cover the areas of undergraduate instruction in analytical, inorganic, organic, and physical chemistry. Students whose test scores indicate weakness in one or more areas will be required to complete satisfactorily the appropriate undergraduate courses (not for graduate credit).

Requirements for the M.S. degree in chemistry constitute a minimum of 24 hours of coursework other than research, including one course each from four of the five major areas of chemistry: analytical, biochemistry, inorganic, organic, and physical. Students electing biochemistry must take or have taken Chem. 446G and 467G or equivalent to satisfy this requirement. In addition, Chem. 435G is required for all students who have not successfully completed an undergraduate instrumental methods course. All graduate students will take Chem. 598 (seminar) each semester; a minimum of two seminars is required, with one hour of credit being applied toward the degree.

Candidates for this degree are expected to take at least 18 hours of coursework within the Department of Chemistry. At least half of these hours must be in courses open only to graduate students (500 level or above). A student wishing to pursue an interdisciplinary program of study may obtain permission from the Head of the Department of Chemistry to take less than 18 hours in chemistry, provided that the "outside" coursework is in an allied science and that all other departmental requirements are met. Candidates for the M.S. must maintain a grade point average of at least 3.0 in their chemistry courses.

A thesis is required and is based on the results of an experimental laboratory investigation performed 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 another research tool in lieu of the language requirement, it must be approved by his/her research advisor and the Head of the Chemistry Department.

Gordon Wilson, Head

Graduate Faculty

Professors: J. Reasoner, C. Wilkins, G. Wilson

Associate Professors: R. Farina, D. Hartman,

C. Henrickson, N. Holy, N. Hunter, L. Shank

Assistant Professors: E. Pearson, J. Riley

Degrees Offered: Master of Science in Chemistry, Master of Arts in College Teaching 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.

At the beginning of each semester the Department administers a series of entrance examinations to all

Master of Arts in College Teaching in Chemistry

This program is designed especially for the preparation of community college and junior college instructors. Admission requirements and entrance examinations are the same as those for the M.S. degree candidates. Both Plan A (thesis) and Plan B (non-thesis) are available. Under Plan A, at least 18 of the required 24 hours of graduate coursework must be in chemistry. Under Plan B, at least 15 of the required 30 hours of graduate coursework must be in chemistry. Under both plans, at least half of all hours earned in chemistry coursework must be in courses numbered 500 or above. The chemistry courses must include 435G (unless an equivalent course has been satisfactorily completed), 570, and at least one course each from four of the following areas of chemistry: analytical, biochemistry,

inorganic, organic, and physical. Candidates for the M.A.C.T. will also be expected to complete a program of supervised college teaching and must meet the research tool requirement as stipulated by and acceptable to the student's advisor and the Graduate Dean.

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 M.A. in Education student must complete a minimum of 12 hours of course work 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 350 and 352; with prior approval these courses may be counted for credit toward the M.A. 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 (Dr. W. H. Stroube) and by the advisor in Secondary Education.

Doctor of Philosophy

A cooperative graduate program leading to the Ph.D. with specialization in chemistry of free radicals and spectroscopy is administered by the Departments of Chemistry of Western Kentucky University and the University of Louisville.

Graduate Courses in Chemistry

500 Fundamentals of Chemistry. 3 hours.

Prerequisite: Undergraduate minor in chemistry. A study of the fundamental principles, theories, and laws of chemistry. This course does not meet requirements for the M.S. or M.A.C.T. degrees.

502 Fundamentals of Modern Chemical Analysis. 3 hours.

Prerequisite: Undergraduate minor in chemistry. A study of modern methods of chemical analysis including an introduction to instrumental analysis. This course does not meet requirements for the M.S. or M.A.C.T. degrees.

503 Fundamentals of Modern Chemical Analysis Laboratory. 1 hour.

Corequisite: Chemistry 502. This laboratory is to accompany Chemistry 502 and includes experiments using the instruments and techniques discussed in the lecture course.

516 Investigations in Chemistry. 1 to 3 hours.

A critical and comprehensive study of chemical literature dealing with a special topic of interest to the student, including reports and proposals for further research. (Not applicable to the M.S. degree.)

520 Advanced Inorganic Chemistry I. 3 hours.

Prerequisites: Chemistry 352 and 420 or equivalent.

This course will consist of the study of various aspects of coordination chemistry.

521 Advanced Inorganic Chemistry II. 3 hours.

Prerequisite: Chemistry 520 or permission of instructor.

The course content will consist of a study of various current theories of inorganic reaction mechanisms.

530 Instrumental Analysis I. 3 hours.

Prerequisite: Chemistry 435 or permission of instructor.

A study of the theory and applications of modern instrumental methods of analysis.

531 Instrumental Analysis II. 3 hours.

Prerequisite: Chemistry 530.

A continuance of the study of modern instrumental methods of analysis.

540 Organic Reactions. 3 hours.

Prerequisite: Permission of instructor.

A study of modern synthetic methods used in organic chemistry.

541 Theoretical Organic Chemistry. 3 hours.

Prerequisites: Chemistry 352 and 440 or permission of instructor.

A study of modern theories of organic reaction pathways.

550 Chemical Thermodynamics. 3 hours.

Prerequisites: Chemistry 352 and Math 228 or equivalents.

The study of thermodynamics with emphasis on chemical applications.

551 Chemical Kinetics. 3 hours.

Prerequisites: Chemistry 352 and Math 228 or equivalents.

A general consideration of chemical reaction rates and theory of reaction rates.

562 Intermediary Metabolism. 3 hours.

See Biochemistry.

570 Lecture Demonstration Techniques. 3 hours.

Prerequisite: Chemistry 352 or equivalent.

A practical course in the design and operation of meaningful lecture demonstrations in chemistry. Required of all M.A.C.T. candidates; does not meet requirements for the M.S. degree.

598 Graduate Seminar. 1 hour.

Prerequisite: Graduate standing.

ENGINEERING TECHNOLOGY

Reports and discussions of recent research in chemistry. Required of all graduate students each semester but only one credit allowed to count toward the M.S.

599 Thesis Research and Writing. 6 hours.

599c Maintaining Matriculation. 1 to 6 hours.

632 Principles of Analytical Chemistry. 3 hours.

Prerequisite: Chemistry 435 or permission of instructor.

A study of the theory and practice of modern quantitative analysis.

652 Introductory Quantum Mechanics. 3 hours.

Prerequisites: Chemistry 352 and Math 228 or equivalents.

Introduction to quantum mechanics with emphasis on the aspects most related to chemistry.

675 Advanced Topics in Chemistry. 1 to 3 hours.

Prerequisite: Permission of instructor.

Modern topics in the fields of analytical, biological, inorganic and physical chemistry offered on demand. Course may be repeated for credit provided topics differ.

799 Doctoral Research in Chemistry. 1 to 6 hours.

Experimental work in analytical, biological, inorganic, organic, or physical chemistry. May be repeated indefinitely.

799c Maintaining Matriculation. 1 to 6 hours.

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

412G Introduction to Physical Chemistry. 4 hours.

Prerequisites: Chemistry 122-123 and Math 125. A study of the chemical principles involved in thermodynamics, kinetics, equilibrium and other selected topics. Specifically for secondary education majors and those students not qualifying for the Chemistry 350-352 sequence.

413G Introductory Physical Laboratory. 1 hour.

Prerequisites: Chemistry 230, Mathematics 125. Corequisite: Chemistry 412.

420G Inorganic Chemistry. 3 hours.

Prerequisites or corequisites: Chemistry 352-353. A study of such topics as atomic structure, molecular structure, bonding theory, ionic substances, electron deficient compounds, acid-base theory and coordination chemistry.

435G Analytical Chemistry. 4 hours.

Prerequisites: Chemistry 352-353.

A course in modern instrumental methods of analysis including spectro photometric, electro-analytical and chromatographic techniques.

446G Biochemistry. 3 hours.

See Biochemistry.

447G Biochemistry Laboratory. 2 hours.

See Biochemistry.

462G Bioinorganic Chemistry. 3 hours.

See Biochemistry.

467G Biochemistry II. 3 hours.

See Biochemistry.

470G Chemistry for the "Middle School." 4 hours.

Prerequisite: Chemistry 108 or 123 or permission of instructor.

A study of the chemical theories and principles which are involved in the typical middle school science curricula. May be used as an elective, but does not count towards a major or minor in chemistry for the secondary education student.

475G Advanced Topics in Chemistry. 1 to 3 hours.

Prerequisite: Permission of instructor.

Selected topics in the fields of analytical, biological, inorganic, organic, physical and polymer chemistry offered on demand. Course may be repeated for credit provided topics differ.

476G Advanced Laboratory Investigations in Chemistry. 2 hours.

Prerequisite: Permission of instructor.

Assigned laboratory work in the fields of analytical, biological, inorganic, organic or physical chemistry. Course may be repeated for credit provided topics differ. Not acceptable for M.S. degree.

ENGINEERING TECHNOLOGY

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.

Prerequisite: Permission of instructor.

The course content will include sources of air contaminants; effects on people, animals, plants and materials; monitoring air pollutants; the legal aspects of air pollution; and air pollution control. The laboratory portion will deal with sampling and analyses for gases and particulates. Lecture, 2 hours; lab, 2 hours.

406G Water Pollution for Science Teachers. 3 hours.

Prerequisite: Permission of instructor.

The importance of water in the environment will be presented. Topics to be discussed will include water resources, water pollutants; origins, characteristics and effects, water pollution legislation and standards, and water and waste water treatment. The laboratory will deal with measurements of water and water quality parameters. Field trips will be conducted. Lecture 2 hours; lab 2 hours.

410G Water Supply. 3 hours.

Prerequisite: Permission of instructor.

This course includes the planning, operation and design of water supply systems. Specific topics covered include water consumption and supply, water quality standards and criteria, population predictions, hydrological considerations of surface and ground water, as well as the design of collection, purification and water distribution systems. Emphasis in the laboratory is placed on testing procedures for carrying out water quality surveys and water treatment plant operation. Lecture.

415G Water Supply Laboratory. 1 hour.

Corequisite: ET 410G.

A laboratory course correlated with ET 410G. Three hours per week.

420G Waste Water Treatment. 3 hours.

Prerequisite: Permission of instructor.

The theory, design and operation of waste water collection and disposal systems, considered as unit operations and unit processes. Functional design of storm and sanitary sewers, sewage works and appurtenances. Chemical and biological characteristics of waste water. Lecture.

425G Waste Water Treatment Laboratory. 1 hour.

Corequisite: ET 420G.

A laboratory course correlated with ET 420G. Three hours per week.

430G Radiological Health. 3 hours.

Prerequisite: Permission of instructor.

This course includes the fundamentals of atomic, nuclear and radiation physics related to radiological health. Fundamentals of detection of ionizing radiation, including X and gamma radiations, alpha and beta particles and neutrons are covered. Counting techniques, statistics, radiation interaction, biological effects, radiation hazards (maximum permissible concentration and dose) and radioactive waste disposal are integrated into lecture and laboratory exercises. Lecture 2 hours; lab 3 hours.

440G Industrial Hygiene. 3 hours.

Prerequisite: Permission of instructor.

This course presents the fundamental principles of occupational health and the recognition, evaluation and control of occupational health hazards. The course agenda includes lectures, demonstrations and field trips on such topics as

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

470G Industrial Waste Treatment. 3 hours.

Prerequisite: Permission of instructor.

Studies of the characteristics and composition of wastes from industrial processes and their effects on the environment. Methods of sampling and analysis of industrial waste and remedial measures for treatment and disposal are covered. Unit operations and processes are included in remedial measures. Lecture.

475G Selected Topics. 1 to 3 hours.

Prerequisite: Permission of instructor.

Considers current problems and development in engineering technology. Specific topics vary each semester. (Fall, spring)

480G Solid Waste Treatment. 3 hours.

Prerequisite: Permission of instructor.

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

490G Sanitation. 3 hours.

Prerequisite: Permission of instructor.

This course presents the sanitary principles involved in the processing and distribution of milk and milk products, meat, shellfish and other foods. Field trips to local food preparation establishments, to milk and food processing plants, to swimming pools and housing projects such as model cities are integrated with laboratory testing for the isolation and identification of micro-organisms involved in food-borne disease outbreaks. Special emphasis is placed on the state and federal sanitation codes. Lecture, 2 hours; lab 3 hours.

495G Environmental Impact Statements. 3 hours.

Prerequisite: Permission of instructor.

This course provides the student with the necessary information in the preparation of assessments of environmental impacts as outlined by the National Environmental Policy Act (NEPA). Available resource information will be provided.

DEPARTMENT OF GEOGRAPHY AND GEOLOGY

Edmund E. Hegen, Head

Graduate Faculty

Professors, R. Ahsan, W. Cockrill, S. C. Csallany, J. Davis, E. Hegen, J. McGregor, C. Pickard, J. Taylor
Associate Professors: R. Dilamarter, N. Fields, R. Foster, W. Hoffman, M. Lowry, A. Petersen, R. Seeger

Degrees Offered: Master of Science in Geography, Master of Arts in College Teaching 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 wide 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.



Master of Science in Geography

Requirements for the Master of Science in Geography include a minimum of 30 hours of graduate credit, 12 of which must be taken in Geography 500, 502, 504, 491G or 590. With approval from the advisory committee, a student may take a maximum of six hours outside the department. The thesis (required) must be based upon original research performed under the direction of the advisor.

Prior to the comprehensive examination the applicant must meet the research tool requirement by either (1) demonstrating reading proficiency in a foreign language appropriate to the major area, or (2) demonstrating competency in the appropriate research techniques.

Master of Arts in College Teaching in Geography

The M.A.C.T. is designed for students who intend to pursue careers in junior college or college teaching. This program requires the following core courses: Geography 500, 502, 504, and 491G or 590. The thesis is optional. Students in this program have an opportunity for supervised teaching experience.

Master of Arts in Education (Geography major or minor)

This program is designed for those who are interested in public school teaching. Students planning to teach must meet all requirements for standard high school certification. A major in geography requires a minimum of 18 hours in geography (including 500, 502, 504, and 491G or 590), while a minor requires a minimum of 12 hours in geography. The remaining hours are taken in professional education.

Master of Public Service (City and Regional Planning Option)

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

This option is designed to provide academic and practical training in city and regional planning and prepares students for employment with local, state, and federal agencies and for a variety of positions within the private sector of the economy.

All candidates for the Master of Public Service degree (regardless of the option chosen) are required to complete a core area of nine to 12 hours including Public Affairs 540—Public Administration (which is required of all).

The remaining hours of the core may be selected from the following courses:

Economics 550—Government Financial Policy and Administration
Geography 580—Problems in Urban Geography

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- Government 511—Seminar in State and Local Government
Sociology 565—Studies in the Community
Psychology 551—Social Psychology of Organizations

In addition to the core requirement, students selecting the planning option are required to complete a minimum of 21 additional graduate hours. With the consultation of the advisor individual programs are devised to fit the specific needs and talents of the student. The thesis is optional. Required courses are:

- Geog. 484G Planning: Theory and Application
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 skills for geographic research. Skills emphasized include posing of research problems, documentation, organization, and presentation of geographic problems. (Fall)

501 Geography, Science, Civilization. 3 hours.

Prerequisite: Permission of instructor.

A topical seminar which examines current issues and trends of the discipline and related fields, surveys recent research, and introduces the participants to the broad concern of the role of science in society, technology and culture, and other similar topics. (Spring of even-numbered years)

502 Geographic Techniques for Field Investigations. 3 hours.

Prerequisite: Permission of instructor.

Practical applications of geographic field techniques. (Spring or May-term)

504 Historical and Philosophical Bases of Geography. 3 hours.

Prerequisite: Permission of instructor.

A critical survey of the evolution of geography as a distinct discipline through the study of the writings of outstanding scholars from the Greek period to the present time. (Fall)

505 Biogeography. 3 hours.

Prerequisites: Introductory courses in geography and/or biology, and permission of instructor.

A study of the evolutionary, geographical, ecological, pedological, and edaphic factors that have been involved in the naturalization, acclimation, and distribution of plant life with some emphasis on animal life. (Fall of odd-numbered years)

510 Selected Topics in Geography. 3 hours.

Prerequisite: Permission of instructor.

Seminar course whose subtitles will vary from se-

mester to semester depending upon student needs. (On demand)

521 Advanced Studies in Geomorphology. 3 hours.
Prerequisites: Geomorphology 420, or equivalent, and 3 additional hours in related upper-level physical geography or geology.

The first half of the course will consist of a review of topics in advanced geomorphology, selected field and laboratory procedures, and an introduction to research in landform analysis. The second half of the course will be devoted to student research in instructor-approved geomorphic topics. Progress reports and discussion will culminate in the presentation of a student research paper. (Spring of even-numbered years)

522 Advanced Studies in Climatology. 3 hours.

Prerequisites: Geography 422 and permission of instructor.

Development of skills in studying the effects of climatic controls on microclimates and climatic anomalies. Detailed use of environmental characteristics, i.e., rainfall patterns, etc., in distributional studies stress the use of climatology as a research tool. (Spring of even-numbered years)

525 Advanced Political Geography. 3 hours.

Prerequisites: Geography 425 and permission of instructor.

Selected topics or problems in political geography, with examples drawn from local, metropolitan, regional, national, and international levels. (Fall of odd-numbered years)

530 Selected Problems in Cultural Geography. 3 hours.

Prerequisite: Geography 430 or permission of instructor.

A seminar-field experience designed to study cultural origins and dispersals and environmental perception and behavior with resulting consequence upon the geographic landscape. Emphasis will be placed upon examination of the local landscape through individual field projects. (Spring)

532 Studies in Geographic Exploration. 3 hours.

Prerequisite: Permission of instructor.

18th, 19th, and 20th century scientific exploration of the "terrae incognitae" through examination of first hand accounts. Emphasis will be placed upon landscape description and mapping by governmental sponsored scientific "voyages of discovery". Study will involve the processes of human landscape discovery with their cultural, economic, and political ramifications. (Spring of odd-numbered years)

540 Advanced Regional Geography. 3 hours.

Prerequisites: Two courses in regional geography and consent of instructor. The study of the regional method as one of the basic approaches to geographic research through the vehicle of one

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- or more major regional units. The regional emphasis will be announced each time the course is offered. (On demand)
- 541 Seminar in Tropical Geography. 3 hours.**
Prerequisites: Geography 210 or 422 or 430 and permission of instructor. A seminar which analyzes the specific problems of the man-environment relationships of the American, African, and Asian Tropics. (On demand)
- 550 Advanced Studies in Economic Geography. 3 hours.**
Prerequisites: Geography 250, 478 or 479 and permission of instructor. An examination of the major theories in economic geography. Attention will be directed to the relationship of these theories to spatial activities and problems in the various sectors of the economy. (Spring of even-numbered years)
- 560 Settlement Geography. 3 hours.**
Prerequisite: Geography 430 or consent of instructor.
An introduction to sources and philosophies of settlement studies. Investigations of selected settlement patterns with emphasis on rural and rural non-farm settlement: farmstead, hamlet, village and town, and functionally related features, architectural style, and functional rationale. Student research will center on local (or home) settlement phenomena. Field research normally will be included. (Fall of even-numbered years)
- 571 Quality of Life: Environmental Problems and Ecological Solutions. 3 hours.**
Prerequisite: Graduate standing in geography or consent of instructor.
A seminar designed to develop critical ecological sensitivity through analysis of past and present environmental problems, implemented and alternative solutions. Includes a research project directed toward preventive application of ecological solutions to impending environmental problems. (On demand)
- 580 Problems In Urban Geography. 3 hours.**
Prerequisite: Consent of instructor.
Analysis of selected problems in urban geography. (Fall and spring)
- 584 Advanced Planning. 3 hours.**
Prerequisite: Geography 484.
An analysis of advanced topics and results of recent research in city and regional planning. Topics for discussion will include legislative changes in state and federal studies as they apply to planning, land use controls, and various methodologies used in the field. (Spring)
- 585 Advanced Studies in Population Geography. 3 hours.**
Prerequisites: Geography 485 and permission of instructor.
A seminar approach to regional and world prob-
- lems in human population. Selected problem areas identified in Geography 485 are studied in depth, and seminar reports given and discussed. (Fall of odd-numbered years)
- 590 Experimental Design and Data Analysis. 3 hours.**
Prerequisite: Geography 491 or permission of instructor. (Cross-listed with Agriculture 590)
Statistical considerations in design of experiments; covariance, multiple regression, factorial experiments, individual degrees of freedom, incomplete block designs, experiments repeated over space and time; test of reliability, significance and confidence levels. Lecture three hours. (Spring)
- 595 Planning Practicum. 3 to 6 hours.**
Prerequisites: Geography 484, 584, and permission of instructor.
Supervised planning experience in a cooperating government or private agency. (On demand)
- 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: Geography 106 and 108 or Geology 102 or 111 and 113.
Each of the physiographic regions or provinces is studied. Locations and names of chief subdivisions of each region are noted. Orogenies, erosional cycles, and cycle-end surfaces are emphasized. Laboratory involves interpretations of A.M.S. topographic models and of topographic maps. (Spring of even-numbered years)
- 410G Cartography II. 3 hours.**
Prerequisite: Cartography I (215) or Maps and Diagrams (324).
History of cartography, map compilation, lettering and typography and generalization; cartographic design, map reproduction, use of color in maps, map projections, scribing techniques, special maps. (Fall and spring)
- 415G Air Photo Interpretation. 3 hours.**
Prerequisite: Permission of instructor.
Characteristics of aerial photographs; remote sensing techniques; use of air photos for analysis of physical and cultural features on the earth and air photo approach to urban and regional planning. (Spring)
- 416G Remote Sensing: Principles and Applications to Environment and Planning. 3 hours.**
Prerequisite: Permission of instructor.
Analysis and evaluation of remote sensing techniques. Application of remote sensing in the study of man's bio-physical environment with the use of infrared, thermal infrared, radar and space photography. (Alternate springs)

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420G Geomorphology. 4 hours.

Prerequisites: Geography 106 or 106-K and 108 or Geology 102, 111, and 113. Cross-listed with Geology.

The study of the origin, history and characteristics of land-forms produced by fluvial, glacial, wind and wave erosion and masswasting and ground-water or by a combination of these, acting upon the major types of earth materials and structures. Laboratory work includes the interpretation of topographic and geologic maps, air-photos and stereopairs. A field trip may be required. (Fall)

421G Advanced Geomorphology. 3 hours.

Prerequisite: Geography 420. (Cross-listed with Geology)

Course emphasis is on landform development under processes associated with running water. Principal topics are: climate and geomorphic processes; weathering; the drainage basin as a geomorphic unit; water and sediment in channels; channel form; hillslope characteristics; drainage pattern evolution; channel changes with time; and evolution of hillslopes. (Spring of odd-numbered years)

422G Climatology. 4 hours.

Prerequisite: Geography 100, 105, or 121.

This course analyzes one of the most important constituents of our environment. Presents the elements of climate and their world distribution with emphasis on the climatic controls; surveys the influences of climates on environment; introduces climatic classification systems and climatological regions of the world. (Fall of even-numbered years)

423G Transportation. 3 hours.

Prerequisite: Permission of instructor.

A critical examination of the problems of interaction, diffusion and information transfer as they appear in a spatial context. Current research and planning needs are analyzed. (Fall)

424G Weather Analysis and Forecasting. 3 hours.

Prerequisite: Geography 100, 105, 121, or permission of instructor.

Analysis of air masses; principles of weather forecasting; the drawing and interpretation of the daily weather map; and the making of weather forecasts. (Spring)

425G Political Geography. 3 hours.

Prerequisite: Geography 101 or permission of instructor.

A study of the political system as a spatial phenomenon from pre-literate forms of sociopolitical integration to the nation-state and other modern forms of political unification. Examples from local, metropolitan-regional, national and international levels. (Fall)

430G Cultural Geography. 3 hours.

This course will emphasize the concept of culture

and how various cultures perceive their environments and interact to them. Man's role as the most active agent in altering the earth's surface is examined. (Fall and spring)

452G Field Studies in Geography. 1 to 3 hours.

Prerequisite: Geography 106 or permission of instructor.

Field methods are emphasized in problems which are assigned. (Spring)

453G Geography of the Soviet Union. 3 hours.

Prerequisite: Geography 101 or permission of instructor.

A geographic analysis of the Soviet Union. (Spring)

454G Geography of Middle America. 3 hours.

Prerequisite: Geography 101 or permission of instructor.

A regional analysis of Mexico, Central America and the West Indies. (Fall)

455G Geography of Australia and Islands of the Western Pacific. 3 hours.

Prerequisite: Geography 101 or permission of instructor.

A survey of geographic patterns in Australia, Micronesia, Melanesia and Polynesia. (Fall of even-numbered years)

462G Geography of South America. 3 hours.

Prerequisite: Geography 101 or permission of instructor.

Analysis of the physical and cultural bases of South America's geographic patterns with emphasis on problems of resource development. (Spring)

464G Geography of Europe. 3 hours.

Prerequisite: Geography 101 or permission of instructor.

A geographic analysis of Europe. (Spring)

465G Geography of Asia. 3 hours.

Prerequisite: Geography 101 or permission of instructor.

A study of regional differences with particular attention to the distribution and activities of the peoples in relation to the natural and economic setting and to problems of development. Excludes the Soviet Union. (Fall)

466G Geography of Africa. 3 hours.

Prerequisite: Geography 101 or permission of instructor.

A geographic survey, assessing the relationships of the physical and cultural patterns to actual and potential economic development. (Fall, spring)

467G Geography of the Bible Lands. 3 hours.

Prerequisite: Permission of instructor.

This course deals with the various aspects of the sequester occupancy of Southwestern Asia and surrounding regions mentioned in the Bible. Emphasized are the physical setting, the historical

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religious geography of the region, and the contemporary scene. (On demand)

470G Geography of Cities. 3 hours.

Prerequisite: Permission of instructor.

This course covers the origin and evolutionary development of cities, patterns of world urbanism at the present time, and provides a detailed examination of cities in the United States. (Fall)

471G Conservation of Natural Resources. 3 hours.

Prerequisite: Geography 101 or permission of instructor.

Natural resources of the United States are studied and recommendations for their more efficient utilization are presented. (Fall, spring, summer)

478G Geography of Agriculture. 3 hours.

Prerequisite: Geography 250, Agriculture 260, or permission of instructor. A study of the regional patterns of world agricultural production. Ecological and economic factors and cultural preferences are used in explaining the spatial patterns of crops and agricultural types. Present and potential production are evaluated in terms of regional and world needs. (Fall)

479G Industrial and Commercial Geography. 3 hours.

Prerequisite: Geography 250 or permission of instructor.

Course deals with manufacturing and with the commercial activities and facilities related to assembling of raw materials and distribution of products. Distribution of each of the principal types of manufacturing is studied. Processes, if geographically significant, are presented and locational reasons for each type are noted. (Spring)

480G Urban Geography. 3 hours.

Prerequisite: Permission of instructor.

Geographic principles related to basic elements of distribution, structure, functional relationships and regional setting of urban centers. (Fall, spring)

484G Planning: Theory and Application. 3 hours.

Prerequisite: Permission of instructor.

An overview of planning theory, practice, and organizational structure. History of planning and planning thought. Traditional and emerging responsibilities of planning; the concept of comprehensive planning. (Fall)

485G Population and Resources. 3 hours.

Prerequisite: Permission of instructor.

The distribution of population and population characteristics are viewed against the background of the resources and cultures of the world. Problem regions are identified. Examples of such areas are studied in their regional setting and world-wide patterns are outlined. The background and causes of the problems are studied and possible attacks on them are developed and considered. (Spring)

491G Data Analysis and Interpretation. 3 hours.

Prerequisite: Mathematics 100 or permission of instructor.

Basic concepts of statistical models and use of samples; variation, statistical measures, distributions, tests of significance, analysis of variance and elementary experimental design, regression, correlation and chi-square as related to interpretation and use of scientific data. (Fall, spring)

The following graduate course, specially designed for teachers of natural and earth science, is offered in Geology

511 The Dynamic Earth. 3 hours.

Prerequisites: Geology 102 and 112, or one year of earth sciences teaching at secondary school level.

The course will contain the following topics: plate tectonics, the surface features of Earth, physical properties of Earth and its interior, geological processes and the geological time scale, the nature of the crust-mantle boundary, the structure, petrology and composition of Earth's crust and mantle, magma generation, geoglyncines and orogeny, continental drift, paleomagnetism, polar wandering and sea-floor spreading. (Summer)

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

405G Paleontology. 4 hours.

Prerequisites: Geology 112 and Biology 148-9 or permission of instructor. (Cross-listed with Biology)

A basic course in paleobiology including the 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. The phylogenetic relationships and geologic history of major invertebrate taxa with a significant fossil record are also studied. Laboratory work includes the examination, description and classification of fossil specimens. (Fall)

411G Special Topics in Geology. 3 hours.

Prerequisite: Permission of instructor.

A lecture-discussion course in which advanced or special topics in geology are considered in detail. (Fall)

415G Environmental Geology. 3 hours.

Prerequisite: Geology 111-113 or 106-108 or permission of instructor.

Assessment of geologic factors with respect to site selection, energy production, land use, waste disposal, planning, water resources, engineering practices, and the recognition and control of geologic hazards. Laboratory exercises stress application of geologic knowledge to specific environmental situations.

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420G Geomorphology. 3 hours.

(Cross-listed with Geography)

Prerequisites: Geography 106 or Geology 102 or 111 and 113. The study of the origin, history and characteristics of landforms produced by fluvial, glacial, wind and wave erosion, and mass-wasting and ground-water or by a combination of these, acting upon the major types of earth materials and structures. Laboratory work includes the interpretation of topographic and geologic maps, air-photos and stereopairs. A field trip may be required. (Fall)

421G Advanced Geomorphology. 3 hours.

(Cross-listed with Geography)

Prerequisite: (Geology/Geography) 420G. Course emphasis is on landform development under processes associated with running water. Principal topics are: climate and geomorphic processes; weathering; the drainage basin as a geomorphic unit; water and sediment in channels; channel form; hillslope characteristics; drainage pattern evolution; channel changes with time; and evolution of hillslopes. (Spring of odd-numbered years)

424G Field Geology. 7 hours.

Prerequisites: Geology 111, 112, 113, 114, 308, and 330. A six-weeks summer field course in geology. (On demand)

440G Hydrogeology. 3 hours.

Origin, occurrence and movement of ground water; water wells and aquifer evaluations; exploratory investigations; quality of ground water supplies; legal aspects.

450G Stratigraphy-Sedimentology. 3 hours.

Prerequisite: Geology 350, Geology 405.

The origin, characteristics, occurrence and classification of sedimentary rocks, the processes of sedimentation and the characteristics and relationships of sedimentary strata including stratigraphic principles and practice. Representative rock specimens are studied. (Spring)

465G Geophysics. 3 hours.

Prerequisites: Geology 111 and one year of college physics or instructor permission.

The basic fundamentals of general and exploration geophysics. The initial topics discussed include the origin of the earth and solar system, the earth's interior, geochronology, gravity and isostasy, seismology, the earth's heat, geomagnetism, upper atmosphere, continents and ocean basins, ridges and island arcs and plate tectonics. The theory and applications of exploration geophysics are also covered, especially gravity magnetic and seismic methods. (On demand)

467G Exploration Geophysics. 3 hours.

Introduction to the basic fundamentals of general geophysics. Instruction and practical experi-

ence in the major methods of exploration geophysics, such as gravity, magnetic, seismic, and electrical methods. (Fall)

470G Tectonics. 3 hours.

Prerequisite: Geology 308.

Plate Tectonics is the unifying theory of modern earth sciences. It explains the origin and evolution of Earth's surface features. The theory is studied in detail and its historical development outlined, stressing the contribution of previous hypotheses and research (i.e. continental drift, sea-floor spreading, paleomagnetics, magnetic reversals, geosynclines, etc.) (Fall)

475G General Oceanography. 3 hours.

Prerequisite: Geology 325 or 350 or permission of instructor.

A course in basic fundamentals pertaining to the geological, chemical, physical and biological aspects of the marine environment. Primary topics for discussion include the topography, structure and history of the ocean basins and their margins, ocean waters and oceanic circulation, tides and waves, marine geochemistry, ocean sediments and sedimentation, near-shore geologic processes and the ocean as a bio-geochemical system. The resources of the ocean and the influences of man are also considered. (Spring of odd-numbered years)



DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE

Robert C. Bueker, Head

Graduate Faculty

Professors: R. Bueker, C. Davis, B. Detwiler, M. Watson

Associate Professors: J. Barksdale, R. Crawford,

W. Feibes, W. Jones, J. Stokes, K. Wallace, C. Wells,
R. York

Assistant Professor: J. Crenshaw

Degrees Offered: Master of Science in Mathematics,
Master of Arts in College Teaching 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 mathematics. Admission requirements include a background equivalent to an undergraduate liberal arts major in mathematics. The prospective student is expected to have satisfactorily completed, at a minimum, courses in real analysis or advanced calculus, abstract algebra, and linear algebra.

Both Plan A (thesis) and Plan B (non-thesis) are available. The research tool requirement may be fulfilled with a foreign language, a mathematics reading course, or computer science. Each student's program must satisfy the following requirements:

- (1) Analysis: Six hours from Math 431G, 432G, 532, 450G, 550. Either 532 or 550 must be included.
- (2) Topology-Geometry: Six hours from Math 423G, 523, 439G, 539.
- (3) Applied Mathematics: Six hours from Math 405G, 406G, 435G, 470G, 529, 530, 570.
- (4) Algebra: Math 517.

Courses in each area and electives are selected by the student, in consultation with the advisor.

Master of Arts in College Teaching in Mathematics

This program is designed for students who intend to pursue careers in community college or junior college teaching. The course and admission requirements are as outlined under the Master of Science in Mathematics except that a three hour internship course, consisting

of experience in college teaching, must be included. The thesis is optional.

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.

Graduate Courses in Mathematics and Computer Science

500 Readings in Mathematics. 1-3 hours.

Prerequisite: Undergraduate major in mathematics.

Students read and present papers that have appeared (or have been accepted by) mathematical journals. Topics covered are determined by areas of interest of the respective students. Satisfactory completion of three hours in Mathematics 500 may be utilized to satisfy the research tool requirement for a Master of Science in Mathematics degree.

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: Math 423 or 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.

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- 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.**
Prerequisite: Math 450 and 432.
Analytic continuation; conformal mapping; Riemann surfaces; univalent functions.
- 560 Functional Analysis. 3 hours.**
Prerequisite: Math 432.
Abstract approach to linear problems; general theorems on linear operators; spectral analysis.
- 570 Advanced Topics in Operations Research. 3 hours.**
Prerequisite: Math 432, 470 or consent of instructor.
In depth study of one or two areas of operations research, emphasizing mathematical aspects. Topics include: theory of Markov chains; dynamic programming; forecasting and prediction of discrete time series; linear programming; stochastic processes; game theory and Leontief models.
- 590 Special Topics in Mathematics. 3 hours.**
Prerequisite: Mathematics 432.
- 599 Thesis Research and Writing. 6 hours.**
- 599c Maintaining Matriculation. 1 to 6 hours.**
- 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.**
Prerequisite: Permission of instructor.
This course examines some of the more important topics usually discussed in the elementary calculus sequence, thus helping to prepare the student to teach such material in the secondary school system. Introductory material including logic, set theory, and functions is provided. Calculus topics covered will include sequences, series, limits, continuity, the derivative, and the Riemann integral.
- 504 Computer Applications to Problems in Mathematics. 3 hours.**
Computer techniques and solutions of problems from diverse areas of mathematics including calculus, applied statistics, simulation, linear programming, game theory and linear algebra.

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

405G Numerical Analysis I. 3 hours.

Prerequisites: C.S. 240, Math 237 or 410.
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. (Fall)

406G Numerical Analysis II. 3 hours.

Prerequisites: Math 405 and 327 or 431.
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. (Spring)

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. This course is for elementary education majors only. (Alternate years)

417G Algebraic Systems. 3 hours.

Prerequisite: Math 317. Theory of groups. (Fall)

Additional 500-level courses acceptable for the Master

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423G Geometry II. 3 hours.

Prerequisite: Math 323.

An axiomatic development of plane hyperbolic geometry which presupposes a development of absolute geometry. (Spring)

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. (Spring)

431G Intermediate Analysis I. 3 hours.

Prerequisite: Math 317.

Introductory set theory; sequences; series; limits; continuity. (Fall)

432G Intermediate Analysis II. 3 hours.

Prerequisite: Math 431.

Elementary topological concepts; Riemann integral; differentiation; sequences and series of functions. (Spring)

435G Partial Differential Equations. 3 hours.

Prerequisite: Math 331.

Equations of first and second order; elliptic, hyperbolic and parabolic equations; Sturm-Liouville theory; applications to equations of mathematical physics using separation of variables and Fourier series. (Spring)

439G Topology. 3 hours.

Prerequisite: Math 431 or permission of instructor. Orderings; topological spaces; mappings; separation axioms; compactness; connectedness; arcwise connectedness; metric spaces. (Spring)

440G Computer Organization. 3 hours.

Prerequisite: C.S. 242 and C.S. 348.

An introduction to the concepts involved in the logical design of computers and computer systems. Basic digital circuits, Boolean algebra, switching circuits, data representation and transfer, digital arithmetic, control functions, input-output facilities, system organization and reliability, simulation techniques. Recent advances. (Spring)

442G Information Structures. 3 hours.

Prerequisite: C.S. 348.

Theory and methods for dealing with structured data. Topics include: arrays, trees, strings, linear lists, storage and file structures, consideration of data structures in various programming languages including PL/I, searching and sorting techniques. (Fall)

444G Programming Languages. 3 hours.

Prerequisite: C.S. 241.

A survey of procedure-oriented programming languages such as ALGOL and FORTRAN and special-purpose languages such as LISP and SIMSCRIPT. Emphasis is placed on the syntactic and semantic structures present in these languages. (Fall)

445G Organization of Programming Systems. 3 hours.

Prerequisites: C.S. 440 and 442.

Structure of multiprogramming systems on multi-processor hardware configurations. Details on information representation and transfer, memory utilization and management, control functions, input/output facilities, systems accounting, reliability, features needed for batch processing and real-time systems. (Spring)

447G System Simulation. 3 hours.

Prerequisite: C.S. 241 and Math 329.

A general introduction to computer simulation of theoretical systems and realtime processes. Abstract properties of simulations are examined and basic algorithms for lists, list structures and stochastic processes are introduced. General purpose simulation languages including GPSS and SIMSCRIPT are introduced. Each student is required to complete a term project simulation program. (Spring of even-numbered years.)

450G Complex Variables. 3 hours.

Prerequisite: Math 431 or 327.

Complex number plane; analytic functions of a complex variable; integration; power series; calculus of residues; conformal representation; applications of analytic function theory. (Fall)

470G Introduction to Operations Research. 3 hours.

Prerequisite: Math 329 or 237 or consent of instructor.

Principles and techniques of operations research, including linear programming, queuing theory, inventory models, deterioration and replacement theory, sensitivity analysis and dynamic programming. (Spring)

475G Selected Topics in Computer Science. 1-3 hours.

Prerequisite: Permission of instructor.

A consideration of special topics which will acquaint the advanced student with significant problems and developments of current interest in computer science. (Every semester)



DEPARTMENT OF PHYSICS AND ASTRONOMY

PHYSICS AND ASTRONOMY

Thesis topics are available in the following areas: atomic collisions, biophysics, optical astronomy, electron physics, radio astronomy, radiation dosimetry, astrophysics, theoretical physics.

N. Frank Six, Head

Graduate Faculty

Professors: W. Buckman, D. Humphrey, G. Moore, M. Russell, F. Six

Associate Professors: T. Coohill, E. Dorman, M. Longmire, J. Parks

Assistant Professors: A. Fennelly, K. Hackney, R. Hackney, C. Wolff

Degrees Offered: Master of Science in Physics, Master of Science in Engineering Physics, Master of Arts in Education (Physics minor).

The Department of Physics and Astronomy requires that applicants to departmental programs 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.

The graduate programs in the Department of Physics and Astronomy are flexible to the extent that a student can select up to nine 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.

Master of Science in Physics

This degree program is designed to prepare students to continue graduate work at the Ph.D. level in physics or some closely related discipline. The 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 M.S. in Physics Degree include a thesis, at least 18 hours (12 hours plus thesis) in courses numbered 500 and above, at least 15 hours of coursework in the student's major field of study, and the completion of two courses selected from Physics 540 (Electromagnetic Theory), 550 (Classical Mechanics), and 580 (Quantum Theory). The research tool 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 examination (oral and/or written) includes defense of the thesis and may include other topics.

Master of Science in Engineering Physics

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. Normally, 15 to 18 of the 30 hours required for the degree are taken in physics, and six to nine hours are taken in a minor.

The student's thesis advisor will be assigned when 15 hours of coursework have been completed and the thesis topic has been selected. The final examination (oral and/or written) includes defense of the thesis and may include other topics.

Master of Arts in Education

The Department offers four 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, a math-science major of 18-21 hours, and a science area minor of 12-15 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 required 30 hours will be taken in professional education.

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: Physics 480.

A study of the structure of atomic and molecular spectra including quantum mechanical energy states, wave mechanical rules for combining momenta and magnetic moments, the Stark effect, and the Zeeman effect.

530 Statistical Mechanics. 3 hours.

Prerequisites: Physics 450, 480.

An introduction to statistical theories of many body systems and their thermodynamic consequences. Topics include the Boltzmann equation, Liouville's theorem phase space, ensemble theory, entropy and probability, partition functions, equations of state, and quantum statistics.

PHYSICS AND ASTRONOMY

540 Electromagnetic Theory. 3 hours.

Prerequisite: Physics 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: Physics 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: Physics 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.

Discussions 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.

610 Methods of Mathematical Physics II. 3 hours.

Prerequisite: Physics 510.

Selected topics from the mathematical methods of quantum physics.

660 Theory of Solids. 3 hours.

Prerequisite: Physics 480.

A study of 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: Physics 480.

Static properties of nuclei, descriptive aspects of radioactivity and nuclear reactions, systematics of nuclear energies, nuclear models, nuclear decay, nuclear reactions, and nuclear forces.

675 Advanced Topics in Physics. 1 to 3 hours.

Prerequisites: Graduate standing and permission of the instructor.

Each topic is a course in directed study under the supervision of a faculty member. Available for full credit in subsequent sessions with change of content.

Courses which may be taken for graduate credit toward the Physics minor, Science Area major or minor, and Math-Science major under the M.A. in Education

501 Classical Developments in Physics. 3 hours.

A general review of classical physics for the junior high and high school teacher, covering the discovery of physical laws, the origin of forces,

motion, energy, momentum, conservation principles, wave phenomena, and electromagnetics. The goal is comprehension of the basis and nature of physical law, and the ability to convey this insight to others.

502 Modern Developments in Physics. 3 hours.

A general review of quantum physics for the junior high and high school teachers covering atomic structure, the nucleus, elementary particles, probability and uncertainty, and special relativity. The impact of twentieth century discoveries on the foundations of physical law will be emphasized. The goal is awareness of the vitality and influence of physics and the ability to convey this to others.

503 Physics Demonstrations and Laboratory

Exercises. 3 hours.

Designed to acquaint the junior high and high school teacher with laboratory equipment and demonstrations designed for use in secondary education. A laboratory library containing approximately sixty experiments, in place, will enable the teacher to become experienced with equipment. The purpose of the course is to develop confidence in the teacher and instill the desire to enhance lectures and laboratory instruction through the use of new techniques and apparatuses.

505 Investigations in Physics. 3 hours.

A literature search and study relating to a special topic of interest to the student with potential benefit to the teaching of physics.

401G-402G Physical Science I and II. 3 hours.

Prerequisite: Permission of the instructor.

Systematic study of the primary physical properties of matter and forms of energy. Emphasis on measurement process, symbolism, graphical analysis algebraic calculations, dimensional analysis and coherent systems of units. For teachers and prospective teachers.

405G Astronomy for Teachers. 3 hours.

Selected topics in astronomy for elementary and secondary teachers. Does not count toward physics major credit.

410G Physics for Elementary Teachers. 3 hours.

Prerequisite: Permission of the instructor.

A broad study, including laboratory experiences, of the areas of physics relevant to the teaching of science in the elementary school. This is a course for elementary teachers with a minimal science background.

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 are discussed at such a level that the prospective teacher will have a good understanding of modern concepts in physics and will be able to explain them to students. This course includes demonstrations and experiments,

field trips, seminars, and occasional guest lectures.

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

404G Experimental Physics 4. Optics. 1 hour.

Corequisite: Physics 441G.

Provides a physical feeling for the conclusions and concepts of Optics, and teaches some of the techniques of experimental Optics.

406G Experimental Physics 5. Solid State 1 hour.

Corequisite: Physics 460G. Solid State Physics. The objectives are to teach solid state experimental techniques and to demonstrate the lecture material.

407G Experimental Physics 6. Nuclear. 1 hour.

Prerequisite: Physics 302.

Provides experience with modern nuclear detection equipment, examines some of the nuclear properties via experimental methods, and demonstrates the usefulness of nuclear radiation as an analytical research tool.

409G Experimental Physics 7. Research Techniques.

2 hours.

Prerequisite: Two years of college physics.

The practice of laboratory techniques most frequently required in experimental research. Includes drawing and fabrication of apparatus, glassblowing, design and operation of vacuum systems, technical photography, and statistical treatment of data.

414G Introductory Astrophysics. 4 hours.

Prerequisites: Two years of college physics and permission of the instructor. A broad survey of topics in solar system and stellar astrophysics. This course treats radiation theory, solar phenomena; planetary physics and the origin of the solar system, the interplanetary medium; stellar evolution, interiors and atmosphere; the fundamentals of radio astronomy, pulsars, quasars and cosmic X-ray sources.

431G Radiation Biophysics. 4 hours. (Also, Biology 431)

Prerequisites: Physics 201-202 or Physics 231-232. A treatment of the properties of the various forms of radiation and their interactions with, and effects on, living matter. The laboratory offers training in the monitoring of ionizing radiations and in the techniques of radioactive isotopes as applied in biological and clinical work.

436G Biophysics Seminar. 1 hour. (Also, Biology 436)

Seminar exercises designed for junior and senior students majoring in physics or biology. Devoted to the discussion of selected topics of biophysical research.

440G Electricity and Magnetism. 3 hours.

Prerequisites: Physics 350 and Math 331.

The study of classical electricity and magnetism

PHYSICS AND ASTRONOMY

with emphasis on fields, potentials, conductors, dielectrics, steady currents, radiation, and Maxwell's equations.

441G Optics. 3 hours.

Corequisite: Physics 404G. Prerequisites: One year of college physics and one year of calculus. A study of geometrical and physical optics including wave propagation, refraction, dispersion, defraction, and polarization.

450G Theoretical Mechanics. 3 hours.

Prerequisites: Physics 350, Math 331.

A study of rigid body motion, moving coordinate systems, continuous media, and Lagrange's equations.

460G Solid State Physics. 3 hours.

Prerequisite: Physics 320. Corequisite: Physics 406.

An introductory course in the theory of solids including such topics as 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 Geology 465)

Prerequisites: Geology III and one year of college physics or permission of the instructor.

The basic fundamentals of general and exploration geophysics. The initial topics discussed include the origin of the earth and the solar system, the earth's interior, geochronology, gravity and isostacy, seismology, the earth's heat, geomagnetism, upper atmosphere, continents and ocean basins, ridges and island arcs, and continental drift. The theory and application of exploration geophysics are also covered, especially gravity, magnetism, and seismic methods.

470G Nuclear Physics. 3 hours.

Corequisite: Physics 407G. Prerequisite: Physics 320.

The properties of the nucleus including nuclear forces, alpha emission, radioactivity, fundamental particles, and particle accelerators.

475G Selected Topics in Physics. 1 to 3 hours.

Prerequisites: Senior standing and permission of the instructor.

Each topic is a course in directed study under the supervision of a faculty member. The following topics are contemplated: plasma physics, wave motion, physical electronics, and radio astronomy. Available for full credit in subsequent sessions with change of content.

480G Quantum Mechanics. 3 hours.

Prerequisites: Physics 320, 350, 450.

A study of the fundamental principles of quantum mechanics including the hydrogen and helium atoms, the harmonic oscillator, and the Schrödinger wave equation.

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Gustave Kiewra Ed.D., Ball State University	Assistant Professor of Counselor Education	Raymond Mendel Ph.D., Iowa State University	Assistant Professor of Psychology
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Joy Kirchner H.S.D., Indiana University	Professor of Health and Safety	Georgia Miller Ed.D., University of Kentucky	Assistant Professor of Business Education and Office Administration
Walter B. Kleeman, Jr. Ph.D., Union Graduate School	Associate Professor of Home Economics and Family Living	Jim Wayne Miller Ph.D., Vanderbilt University	Professor of Foreign Languages
James Koper Ed.D., University of Missouri	Associate Professor of Education	John F. Miller, Jr. Ph.D., Southern Illinois University	Assistant Professor of Sociology and Anthropology
Carl W. Kreisler Ed.D., Indiana University	Professor of Education	Richard L. Miller Ph.D., University of Houston	Assistant Professor of Psychology
Joan L. Krenzin Ph.D., University of Wisconsin	Assistant Professor of Sociology and Anthropology	Roy W. Miller Ph.D., University of South Carolina	Professor of English
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Albert W. Laird Ph.D., University of Oklahoma	Professor of Psychology	DeWayne Mitchell Ph.D., University of Kentucky	Professor of Education
Archie Laman Ed.D., University of Arkansas	Professor of Education	E. G. Monroe Ph.D., University of Ottawa	Professor of Art
William L. Lane Th.D., Harvard University	Professor of Philosophy and Religion		
Shirley Laney Ph.D., University of Texas	Assistant Professor of Physical Education		

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George C. Moore Ph.D., Northwestern University	Professor of Physics	S. V. Rama Rao M.F.A., University of Cincinnati	Assistant Professor of Art
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James A. Pearse Ph.D., University of Arizona	Assistant Professor of Speech and Theatre	John A. Scarborough Ed.D., Columbia University	Professor of Education
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Darl Neill Peterie Ed.D., University of Missouri	Professor of Art	Stephen B. Schnacke Ed.D., Ball State University	Associate Professor of Education
Albert J. Petersen, Jr. Ph.D., Louisiana State University	Associate Professor of Geography	Robert M. Schneider Ed.D., Michigan State University	Associate Professor of Agriculture
John H. Petersen Ph.D., University of Pittsburgh	Associate Professor of Government	Jack M. Schock Ph.D., State University of New York	Assistant Professor of Sociology and Anthropology
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D. Hugh Puckett Ph.D., University of Virginia	Professor of Biology	Vernon L. Sheeley Ph.D., University of Wyoming	Associate Professor of Education

David Shiek Assistant Professor of Psychology
Ph.D., Indiana State University

Herbert N. Simmons Associate Professor of Education
Ed.D., University of Kansas

Imogene Simpson Associate Professor of Library Science
Ed.S., George Peabody College

Robert E. Simpson Associate Professor of Psychology
Ph.D., University of Alabama

N. Frank Six Professor of Physics
Ph.D., University of Florida

James D. Skean Associate Professor of Biology
Ph.D., University of Tennessee

Robert L. Sleamaker Professor of Education
Ed.D., George Peabody College

Julius J. Sloan Associate Professor of Government
Ph.D., Vanderbilt University

Robert C. Smith Assistant Professor of Library Science
Ph.D., Louisiana State University

James D. Spiceland Assistant Professor of Philosophy and Religion
Ph.D., University of Exeter (England)

Frank Steele Associate Professor of English
Ed.D., University of Tennessee

Robert L. Stevenson Associate Professor of Education
Ph.D., Southern Illinois University

Joseph R. Stokes Associate Professor of Mathematics
Ph.D., George Peabody College

Walter Stomps Associate Professor of Art
M.F.A., School of the Art Institute of Chicago

Richard G. Stone Assistant Professor of History
Ph.D., University of Tennessee

William H. Stroube Professor of Agriculture
Ph.D., Louisiana State University

Joseph W. Survant Assistant Professor of English
Ph.D., University of Delaware

James W. Taylor Professor of Geography
Ph.D., Indiana University

Keith H. Taylor Associate Professor of Education
Ed.D., Indiana University

Sara D. Taylor Assistant Professor of Education
Ed.S., George Peabody College

Jack W. Thacker, Jr. Professor of History
Ph.D., University of South Carolina

Hugh M. Thomason Professor of Government
Ph.D., Emory University

Francis H. Thompson Associate Professor of History
Ph.D., Texas Technological University

Frank R. Toman Associate Professor of Biology
Ph.D., Kansas State University

Polly Toups Associate Professor of Sociology and Anthropology
Ph.D., Tulane University

Richard Troutman Professor of History
Ph.D., University of Kentucky

Donald R. Tuck Associate Professor of Philosophy and Religion
Ph.D., University of Iowa

Thomas Updike Associate Professor of Education
Ed.D., Auburn University

Kenneth Utley Associate Professor of Business Education and Office Administration
Ph.D., Ohio State University

Joseph Uveges, Jr. Professor, Public Service Institute
Ph.D., University of Florida

Charles VanEaton Associate Professor of Economics
Ph.D., Tulane University

Ronald Veenker Associate Professor of Religion
Ph.D., Hebrew Union College

John F. Vokurka Assistant Professor of Education
Ed.D., Indiana University

Arvin Vos Assistant Professor of Philosophy
Ph.D., University of Toronto

Kyle Wallace Associate Professor of Mathematics
Ph.D., Vanderbilt University

Lybeth Wallace M.F.A., Cranbrook Academy of Art

William R. Walls Ph.D., Cornell University

Robert Ward Ph.D., State University of Iowa

Earl Wassom Ed.D., Oklahoma State University

John C. Wassom Ph.D., Indiana University

Martha F. Watson Ph.D., University of Kentucky

Thomas Watson D.M.E., University of Oklahoma

David Watts Ed.D., University of Kentucky

William C. Weaver M.A., Ohio State University

Carroll G. Wells Ph.D., Vanderbilt University

Donald D. Wendt Ed.D., University of Missouri

James Wesolowski Ph.D., University of Wisconsin

Jerry R. Wilder Ed.D., George Peabody College

Curtis C. Wilkins Ph.D., Michigan State University

Fred D. Williams Ed.D., Indiana State University

Gordon Wilson, Jr. Ph.D., Purdue University

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James S. Wittman, Jr. Ph.D., Cornell University

Clarence Wolff M.A., Western Kentucky University

Willson Wood Ph.D., George Peabody College

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Raytha Lloyd Yokley Ph.D., Indiana University

Randy York Ph.D., University of Wyoming

Alan T. Yungbluth Ph.D., University of Minnesota

Elmer Gray, Ph.D. Dean of the Graduate College

Faye Robinson, Ed.D. Assistant Dean of the Graduate College

Chris Jenkins, B.S. Staff Assistant to the Dean

Joan McCauley, B.A. Staff Assistant to the Dean

Bill Weaver, M.A. Staff Assistant to the Dean

Bettie Johnson, B.S. Secretary

Sandra Close Secretary

Doris Tyree Secretary

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GRADUATE COLLEGE STAFF

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APPLICATION FOR ADMISSION

Western Kentucky University
Graduate College

(Form A)

1. Full Legal Name	(Last)	(First)	(Middle)	(Maiden)	2. (Soc. Sec. No.)
3. Address: Present	(Street Address)		(City)	(State)	(Zip Code)
Home	(Street Address)		(City)	(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 Nos.: Home	Office	
8. Ethnic Group:	() Black () White () Hispanic () Foreign () Other	9. Citizenship	(Country)		
10. Location of Employment	(City)	(State)	11. Are you a veteran? () Yes () No		
12. Current Occupation: (Please be specific)					
13. If Certification is held; specify type and area, below:					
() Provisional Elementary; () Standard Elementary;	() Provisional Secondary; () Standard Secondary;	() Provisional Guidance; () Standard Guidance;	() School Administration and Supervision Specify: _____		
Which (if any) of the following do you intend to pursue?					
() Fifth Year Non-Degree () Rank I Teacher () Rank I School Administration () Rank I Guidance	() Other: Specify _____				
14. Undergraduate Degree-Granting Institution	(Institution)	(Degree)	(Year)		
15. Previous Graduate Study (if any)	(Institution)	(Degree or Hours)	(Year)		
16. Have you taken the Graduate Record Examination? () Yes () No	17. Are you a resident of Kentucky? (see reverse side) () Yes () No				
18. If previously enrolled at Western, give earliest date: _____ and most recent date: _____					
19. Where do you plan to enroll? () On Campus () Extended Campus	When? () Fall () Spring () Summer				
20. For what admission category are you applying? (See instructions, reverse side)					
() Degree-seeking Student () Non-degree Student Seeking Certification	() Transient (visiting) Student	() Special Student			
21. If you plan to pursue a degree from Western Kentucky University, check the desired program below:					
Master of Arts in Education <input type="checkbox"/> Elementary: <input type="checkbox"/> Early Childhood <input type="checkbox"/> Reading <input type="checkbox"/> Special Ed. <input type="checkbox"/> Librarian <input type="checkbox"/> Junior High _____ (Areas of Specialization) <input type="checkbox"/> Secondary _____ (Major) <input type="checkbox"/> (Minor) <input type="checkbox"/> Secondary: <input type="checkbox"/> Reading <input type="checkbox"/> Special Ed. <input type="checkbox"/> School Counselor <input type="checkbox"/> Student Personnel Services in Higher Education <input type="checkbox"/> School Business Administrator <input type="checkbox"/> General: Area of Concentration _____		Master of Arts <input type="checkbox"/> Child Dev. and Family Living <input type="checkbox"/> Economics <input type="checkbox"/> English <input type="checkbox"/> Folk Studies <input type="checkbox"/> Government <input type="checkbox"/> History <input type="checkbox"/> Humanities <input type="checkbox"/> Psychology <input type="checkbox"/> Sociology <input type="checkbox"/> Spanish <input type="checkbox"/> Speech		Master of Science <input type="checkbox"/> Agriculture <input type="checkbox"/> Biology <input type="checkbox"/> Chemistry <input type="checkbox"/> Engineering Physics <input type="checkbox"/> Geography <input type="checkbox"/> Health <input type="checkbox"/> Library Science <input type="checkbox"/> Mathematics <input type="checkbox"/> Physical Education <input type="checkbox"/> Physics <input type="checkbox"/> Recreation <input type="checkbox"/> Textiles and Clothing	
Master of: <input type="checkbox"/> Business Administration <input type="checkbox"/> Music <input type="checkbox"/> Public Service (option in): <input type="checkbox"/> Agriculture <input type="checkbox"/> Child Development and Family Living <input type="checkbox"/> Counseling <input type="checkbox"/> Recreation and Park Administration <input type="checkbox"/> Regional Development <input type="checkbox"/> Administration <input type="checkbox"/> City and Regional Planning		Master of Arts in College Teaching in: <input type="checkbox"/> Biology <input type="checkbox"/> Chemistry <input type="checkbox"/> Geography <input type="checkbox"/> Spanish <input type="checkbox"/> Mathematics <input type="checkbox"/> History		Specialist Degree in Education <input type="checkbox"/> Elementary <input type="checkbox"/> Counselor Education <input type="checkbox"/> Secondary <input type="checkbox"/> Public School <input type="checkbox"/> School Admin. <input type="checkbox"/> Public Service <input type="checkbox"/> Student Pers. Services in Higher Education	
		Cooperative-Doctoral <input type="checkbox"/> University of Kentucky <input type="checkbox"/> University of Louisville		Specialist Degree in College Teaching <input type="checkbox"/> English <input type="checkbox"/> History	

Mail to: Graduate College
Western Kentucky University
Bowling Green, Kentucky 42101

(Signature)

(Date)

(over)

(Date received in Graduate College)

APPLICATION INSTRUCTIONS

NOTE: The admission file of a student who does not enroll is destroyed after one year unless the student notifies the Graduate College of the delay in enrollment.

Degree-seeking Students must have forwarded to the Graduate College two **official transcripts** 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 Seeking Certification (e.g., students entering non-degree "Rank" teacher programs or school administrator 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 "home" institution.

Special Students (not seeking a degree or certification) 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)

TITLE IX EDUCATION AMENDMENTS OF 1972

Prohibiting Sex Discrimination in Education

Title IX of the Education Amendments of 1972 requires that Western Kentucky University not discriminate on the basis of sex in its educational programs, admissions, employment practices, and activities which it operates. It is the policy of Western Kentucky University to comply with this requirement.

Any person having inquiries concerning Western Kentucky University's compliance with Title IX may contact the following persons who have been designated by the University President to coordinate Western's efforts to comply with Title IX:

Dr. John D. Minton
Vice President for Administrative Affairs
Wetherby Administration Building, 207E
Western Kentucky University
Telephone 745-2434

Dr. Faye Robinson
Assistant Dean, Graduate College
Cravens Graduate Center
Western Kentucky University
Telephone 745-2446

Inquiries about Title IX may also be made to the Director, Office for Civil Rights, U.S. Department of Health, Education, and Welfare, Washington, D.C. 20201.