

UMSL

**University of Missouri-
Saint Louis**



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Preface

This bulletin includes a description of undergraduate courses and announcements of undergraduate programs for the 1974-75 academic year at the University of Missouri-St. Louis. All statements in this publication concerning regulations, fees, curricula, or other matters are subject to change without notice. They are not to be regarded as offers to contract. For information concerning the University of Missouri-Columbia, the University of Missouri-Rolla, or the University of Missouri-Kansas City, write directly to the Director of Admissions at the campus concerned. Inquiries regarding admission to the University of Missouri-St. Louis should be addressed to the Director of Admissions, University of Missouri-St. Louis, 8001 Natural Bridge Road, St. Louis, Missouri 63121.

UMSL
University of Missouri-Saint Louis

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History

Established at Columbia, Missouri in 1839, the University of Missouri was the first state university to be chartered west of the Mississippi River. After passage by the Federal Government of the Morrill Act in 1862, the university became a land-grant institution with a public service mission in addition to its educational and research functions. The university remained a single campus institution until 1870 when a separate School of Mines and Metallurgy was established at Rolla. Initially a division of the main campus at Columbia, the School of Mines in 1964 became an autonomous campus, the University of Missouri-Rolla.

In 1963, the university underwent a major reorganization. The University of Kansas City, formerly a private institution, was absorbed as a new campus, the University of Missouri-Kansas City. Simultaneously, a new campus was created in the state's largest metropolitan area, the University of Missouri-St. Louis. The four campuses which thus came to comprise the university were established, each with a chancellor and administrative staff operating under the general direction of the president of the university and its Board of Curators. As a result of the reorganization, the university broadened extensively its educational, research, and public service functions. By 1973 university enrollment had grown to more than 48,000 students, with more than 11,000 enrolled in graduate and advanced professional programs. The university thus numbered among the dozen largest and most comprehensive of American institutions of higher education.

The University of Missouri-St. Louis is already the second largest campus of the University of Missouri. Located in a northwest suburb of St. Louis, the 128-acre campus opened in 1963 with more than 600 students.

Established in 1963, UMSL has become the largest university in the St. Louis metropolitan area.

Formerly the site for a golf course and country club, the campus is on a picturesque 128-acre tract in northwest St. Louis County.

single building. Ten years later more than 11,500 students were receiving instruction from a full time faculty of more than 400, and the single structure of 1963 had been joined by nine new buildings.

Instructional and research programs of the university were originally organized within a small number of academic divisions. The first of these divisions was created in 1965 with organization of the College of Arts and Sciences. In the following year two additional divisions were formed, the School of Education and the Evening College. In 1967 the School of Business Administration was established. Within these divisions a variety of undergraduate degree programs are currently offered.

At the graduate level, instruction was first provided in 1965 through a cooperative program in education administered jointly by the Columbia and St. Louis campuses. In 1968 independent graduate programs were established and the Graduate School was organized, assuming responsibility for graduate study offered in the various divisions of the university. By 1973, more than 1200 graduate students were enrolled in 11 programs in arts and sciences, business administration, and education. The number and scope of these graduate programs is steadily being expanded.

As part of a metropolitan area with a population greater than 2,400,000, the university has immediately available the cultural, educational, industrial, and transportation facilities of one of the country's major centers, including public and private libraries with specialized research and archival collections, the second oldest symphony orchestra in the United States, excellent museums, medical centers, theatrical companies, and athletic and



Application

Freshmen

The policies of the University of Missouri-St. Louis comply with the provisions under Title VI of the Civil Rights Act of 1964. No person in the United States shall, on the grounds of race, color, or national origin, be denied the benefits of, or be subjected to discrimination under any program or activity of the university.

Inquiries regarding admission to all divisions of the University of Missouri-St. Louis and completed applications should be addressed to the Director of Admissions, 8001 Natural Bridge Road, St. Louis, Missouri 63121.

The selection of a student for regular admission will be based on a combination of high school class rank and performance on a standardized college aptitude test. A student must also submit a high school transcript and, where appropriate, recommendations by persons knowledgeable of the student's potential for success in university-level education.

Class Rank

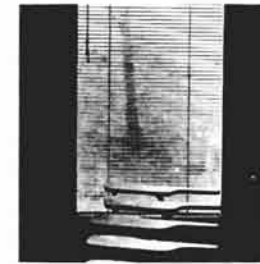
For students applying for admission during their senior year in high school, a class rank as of the end of six semesters should be noted on the student's transcript. For those students in a high school where grades are not given, the principal or counselor should assign an estimated class rank.

Aptitude Test

One college aptitude test score is required of all individuals applying for admission as a new freshman. Any one of the following tests will meet the test score requirement: American College Testing Program (ACT); Scholastic Aptitude Test (SAT); or the Cooperative School and College Ability Test (SCAT) Series II, form IC (College Level). The results of these tests are of benefit to both the student and adviser in planning the student's program and in considering his or her educational and professional objectives. In general, the lower the class rank, the higher the test score must be to meet the admissions requirements and vice versa. Students should request that test scores be forwarded to the admissions office. This is normally done when the student registers for the test but may be requested at a later date on forms supplied by the testing agencies.

If a student has taken two or more of these tests, or has taken one of them on more than one occasion, all resulting test scores should be made available to the admissions

Ninety-eight per cent of UMSL students come from the St. Louis metropolitan area.



student as the admission decision will be based on the highest score.

Entrance examinations should be taken during the senior year at the earliest possible time. All test scores should be on file at the admissions office before June 1.

Transcript

A high school transcript, certified by the proper school official, must be sent directly from the high school attended to the admissions office. The transcript should indicate the class rank at the time of application and all courses satisfactorily completed.

It is recommended that four units in English, two units in mathematics excluding general mathematics, one unit of laboratory science, and one unit of social science be included in the high school curriculum. For students planning to pursue a liberal arts degree, two units in one foreign language is recommended. Any remaining units should be taken from such areas as art, music, economics, a second foreign language, two additional units of the same foreign language, mathematics, and science.

When to Apply

Qualified applicants will be admitted and notified by letter of their admission in the order of receipt of completed applications. The director of admissions will accept applications for admission for the fall semester as of the preceding October 1 on the basis of six or more high school semesters. Completed applications, including high school transcripts and test scores, should be on file by February 1 in order to guarantee that they receive full consideration. This information should be submitted before July 1 for the fall semester, December 1 for the winter semester, and

Acceptance

Upon notification of acceptance to the fall or winter semester, a student will be requested to submit a \$50 nonrefundable advance payment on his or her registration fee. This amount is credited to the student's incidental fee at the time of enrollment in the university. A satisfactory medical history report must be submitted upon acceptance. First time freshmen must take placement exams in English and mathematics. Arrangements will be made with the student through the admissions office after notification of admittance.

Advanced Standing

The University of Missouri-St. Louis grants credit hours to entering freshmen who, on the basis of performance on the College Entrance Examination Board Advanced Placement Tests and faculty administered tests, demonstrates proficiency in certain college level courses such as accounting, biology, chemistry, English, foreign languages, history, mathematics, political science, and physics. Applications to take CEEB examinations and inquiries about the material covered should be addressed to College Board Advanced Placement Examinations, Box 592, Princeton, New Jersey 08540. The score reporting institution code number for the University of Missouri-St. Louis is 6889. Test scores should be sent to the director of admissions. These must be on file before the first day of classes.

Academically talented students who have finished a prescribed amount of secondary school work, less than required for graduation, may enroll in a college course for credit. This credit may be applied as advanced standing after the student has been admitted to the University of Missouri-St. Louis.

Individuals who are over 21 and have no previous college work may earn advanced credit through the College Level Exam Program (CLEP) general examination provided he or she scores at or above the 50th percentile. A maximum of 28 semester hours of credit may be earned through this exam. In addition, CLEP offers subject examinations to students for specific credit in one area. These exams can be completed at any time provided the student has not taken a course in the area of the test. A score at or above the 50th percentile must be earned before credit can be granted. Consultation with an adviser is recommended. The University of Missouri-St. Louis is a test center - CLEP tests are given the third week of every month. Contact the records department of the admissions office for complete information, phone 453-5676.

Credit for Military Service

Credit may be allowed for many of the service training programs conducted by the various branches of the Armed Forces. The recommendations of the American Council on Education as set forth in *A Guide to the Evaluation of Educational Experiences in the Armed Services* will serve, in general, as a basis for granting such credit. In order to be counted toward a degree, the credit granted must be appropriate to the student's curriculum.

Trial Admission

High school graduates who do not meet the standards for regular admission from high school, but want to attend the university may be admitted on a conditional basis in the summer session. Typically, the enrollment is for six hours and if "C" grades or better are earned in these six hours, the student may submit an application after the close of the summer session. If space is available, their application will be reviewed

and the student will be permitted to enroll in the regular fall semester.

High School Nongraduate Applicants

Individuals who have not graduated from high school, but seek admission on the basis of high school equivalency earned from performance on the United States Armed Forces Institute General Educational Development (GED) tests, may be admitted on the basis of an evaluation of the educational merits of the military and other experiences they have accrued since leaving school in combination with their GED test scores and or their performance on other aptitude tests.

Veterans and Mature Adults

Applicants who are veterans of the military service or are over 21 years of age, who have not previously earned college credit and have not been in school for several years, and who do not have a high school diploma or GED or do have a high school diploma, but do not meet the requirements for regular admission from high school, may be admitted on the basis of special preparation or attainment or exceptional aptitude as judged by an evaluation of their military and other experiences, test scores, and other indicators of potential success at the university. Applicants are admitted as special or irregular students although not as candidates for a degree. They can become degree candidates on the basis of their performance in the course work taken.

Project UNITED Applicants

The university seeks to honor fully its educational commitments through experimental programs for limited numbers of educationally disadvantaged students. An applicant to any of these programs must have a reasonable probability of achieving success. For further information contact

Education of the Disadvantaged) on the UMSL campus, 132 Administration Building.

Out-of-State Residents

Out-of-state students must be graduates of an accredited high school. The combination of high school class rank and aptitude test performance for non-Missouri applicants should indicate an appreciably higher probability of success than that applied to graduates of Missouri high schools. Out-of-state applicants may be considered for admission with the completion of six semesters of work provided space is available. The procedure for applying for admission for an out-of-state resident is the same as the procedure for the Missouri applicant except a nonrefundable application evaluation fee of \$10 must accompany the application for admission. Checks or money orders should be made payable to University of Missouri. Upon notification of acceptance the applicant will be requested to submit a \$50 nonrefundable advance payment of the registration fee. This amount will be credited to the student's incidental fee when he or she enrolls in the university. Nonresident students are subject to the nonresident tuition fees.

Transfer Students

Students from other colleges and universities must submit official transcripts of high school and college work, an application for admission, and a satisfactory medical history report. Official transcripts should be sent directly to the Office of Admissions from each institution previously attended. Hand-carried credentials will not be accepted. All credentials submitted for admission become the property of the university.

Out-of-state applicants must submit a \$10 nonrefundable application evaluation fee with their application for admission. Students whose grade point average is 3.0 or higher, based upon the University of Missouri-St. Louis 4-point system, will be admitted at any time. Students whose grade point average is 2.5 or higher will be accepted at any time during the semester prior to that for which entrance is requested. Students whose grade point average is 2.0 or higher may be accepted at any time during the last half of the semester prior to that for which entrance is requested. No student requesting transfer from another college or university whose grade point average is below 2.0 will be admitted. Application forms and credentials for the fall semester should be submitted by July 1; for the winter semester by December 1; and for the semester session by May 1.

Associate Degree Transfers From Junior Colleges

A student admitted to the university and holding an associate degree oriented toward the baccalaureate degree, with a grade point average of "C" or above as validated by an accredited associate degree-granting institution, will be accepted in junior standing. However, this does not exempt the student from meeting the specialized lower division degree requirements and the specialized requirements of departments or

In the first 10 years of its existence, UMSL's student body has grown from 600 to over 11,500 students.



Because the majority of students live in the area, there are no dormitories on campus.

completed in the associate degree program will be evaluated for application to specific degree requirements by means of the same criteria used for transfer students from other colleges and universities, from other campuses of the University of Missouri, and from other divisions of the same university campus.

A student transferring to the university without an associate degree oriented toward a baccalaureate degree will have his or her transcripts evaluated on a course by course basis.

Advanced Standing

Advanced standing in the form of credit hours may be allowed for work satisfactorily completed in another college or university or recognized standing insofar as such work satisfies the requirements of the division of the university in which the student registers. Courses with grades of "D" are not accepted. Advanced standing for the work of the senior year will not be granted. Claims for advanced standing, in order to receive recognition, must be made by the student within one semester after entrance.

Except as indicated below, no junior college student shall receive credit for more than 16 hours in one semester exclusive of the required practical work in physical education. The maximum credit the student may earn in a junior college is 64 semester hours. After a student's credits, wherever earned and counted in the order earned, amount to a total of 64 hours, no additional credits may be allowed for work completed in a junior college. Exceptions to these limitations may be permitted under the following conditions:

1 A student with a superior scholastic record in junior college may be allowed more than 16 hours a semester if the dean has

the following conditions: 17 hours if grade point average is 2.75 or better; 18 hours if grade point average is 3.0 or better; 19 hours if grade point average is 3.5 or better. Grade point average is based upon the following grade point scale: Grade A - 4 points; B - 3 points; C - 2 points; D - 1 point; F (failure) - 0 points. No student will be allowed more than 19 hours for a semester's work.

2 A student who enters junior college with advanced standing granted on the basis of examinations is not subject to the maximum of 64 hours if he or she has been granted such advanced standing on the basis of acceptable placement examinations. Examinations acceptable for advanced placement include those administered by the University of Missouri and certain of the examinations administered by the College Entrance Examination Board and the Educational Testing Service of Princeton, New Jersey. A student who has earned any previous college credit or who has once entered upon college work is not eligible to take part in this program designed particularly for entering freshmen.

3 A junior college student may, before graduation from junior college, complete in any approved senior college the work of one summer session without reducing the amount of credit he or she may be allowed from junior college.

Students from Other Countries

Prospective students living outside the United States and its possessions are advised to write the director of admissions at least one year prior to the date of desired admission. Information and forms concerning admission and approximate expenses will be forwarded. Application papers and official records of previous school work should be furnished the director of admissions. Upon approval of these papers the student will be notified by an official letter. No prospective student should make plans to leave his or her country without first obtaining this permission to enter the university. All students will be required to take the Test of English as a Foreign Language (TOEFL). Applicants should write to: Test of English as a Foreign Language, Educational Testing Service, Princeton, New Jersey 08540.

A foreign student now studying in the United States may be admitted to the university only after the completion of at least 24 semester hours of "C" or better quality work in an accredited school offering a college level program, provided the school's letter of admission was the basis for issuance of the student's visa. To complete the student's credential file, he or she must furnish original and official transcripts from each school attended, both in this country and abroad. No student should consider admittance final until an official letter has been received stating that he or she has been admitted.

Other Applicants

Former Students

Former students not currently enrolled should file a request for permit to reenroll with the director of admissions at least 30 days in advance of the registration period. If fall semester applicants receive an early decision admission, they may preregister during July and August. Preregistration for the winter semester and summer session is limited to students enrolled during the preceding term.

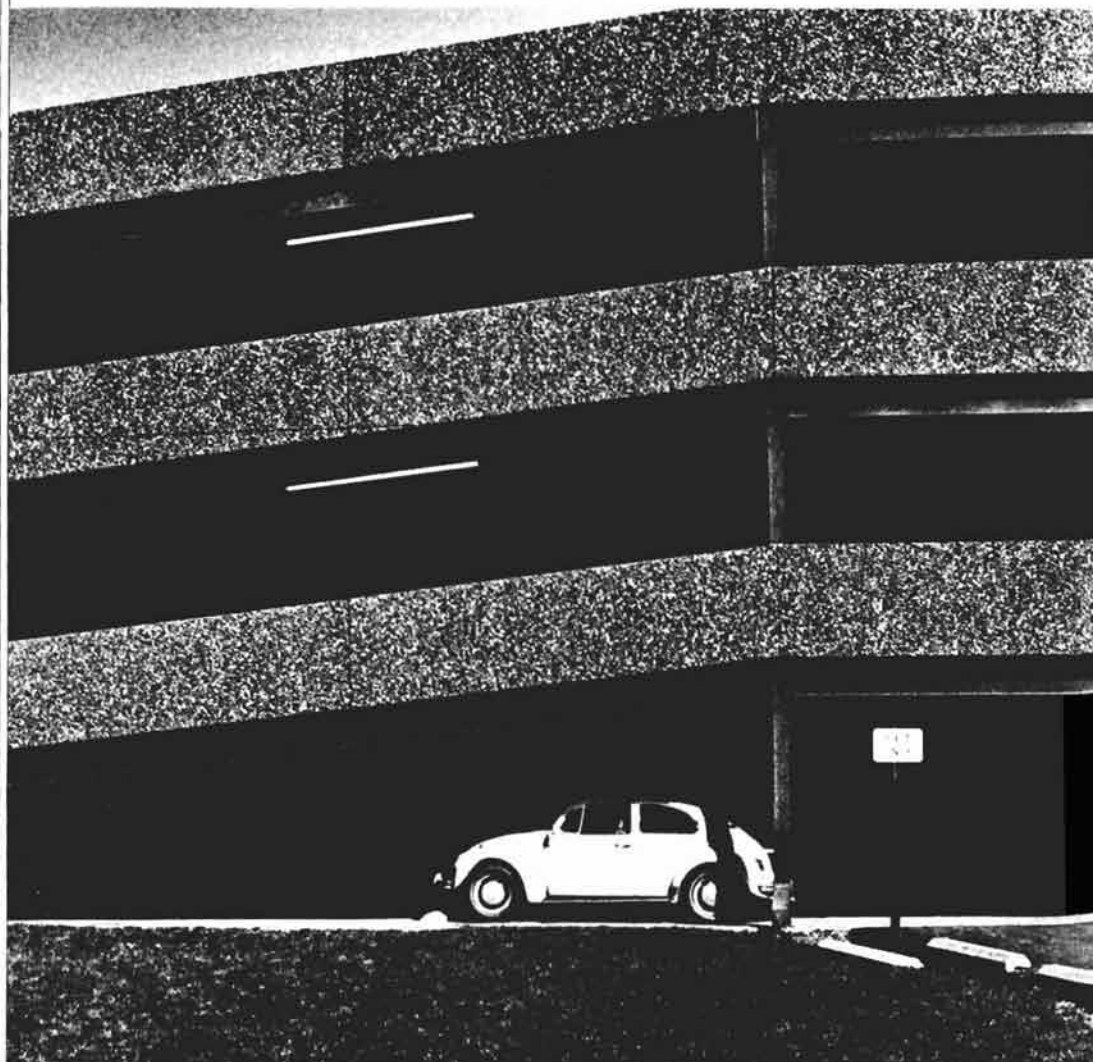
Visiting Students

Students who do not wish to earn a degree from the University of Missouri-St. Louis may be admitted to the summer session by certification as a visiting college student. Admission requires certification by the student's college or university that he or she is in good standing and has permission to enroll in approved course work and transfer the credit back to that institution. Visiting student admission is usually limited to the summer session. Classroom space may not permit the admission of visiting students to the fall and winter terms. Application forms for certification can be obtained from the admissions office. At the close of the session, the student must request to have grades transferred to his or her respective college.

Hearer

A hearer is registered and required to attend at least two-thirds of the session, but is not required to participate in any of the work of the course. He or she receives no academic credit. A student enrolled as a hearer may be dropped from the course when, in the judgment of his or her teacher and dean, the attendance record in the course justifies such action. A student enrolled in a course as a hearer may not change to credit status during the term in which he or she is enrolled.

Most students rely on 'wheels' to commute between home and campus.



Registration

Graduate Students

Application for admission to the Graduate School should be made to the director of admissions, 108 Administration Building. Only graduates of an accredited college or university whose records indicate an ability to succeed in the graduate program involved may be admitted. Applicants are required to take both the Aptitude and Advanced tests of the Graduate Record Examination, except in the field of business where the Admissions Test for Graduate Study in Business is required.

Copies of transcripts of the applicant's college or university work are to be submitted directly to the admissions office by the registrar of the college or university. All materials for admission must be on file in the admissions office not later than 60 days before the semester in which a student plans to enroll. Inquiries regarding admission should be addressed to the admissions office with an indication of the graduate program in which the applicant is interested.

Evening College Applicants

The procedure for admission to the Evening College is the same as the procedure for admission to the day division. For further information see page 218.

New Students

Upon admission to the university students are advised that registration instructions will be forwarded to them by the registrar's office prior to registration. New students admitted for the fall semester are eligible for participation in advance registration procedures which are conducted during the summer months. New students admitted for the winter and summer terms participate in regular registration.

Former Students

Former students who are not currently enrolled with the university must submit to the Office of Admissions requests for permits to reenroll. Former students who submit requests at least one month prior to the advanced registration for fall will be eligible for preenrollment. Those who are not admitted at an early date will be mailed regular registration instructions. All former students admitted for the summer and winter terms will receive regular registration instructions.

Currently Enrolled Students

Currently enrolled students are eligible for participation in advance registration procedures for the fall, winter, and summer terms. During the mid-portion of the winter semester currently enrolled students are mailed intent to continue enrollment cards; students who return these cards to the registration office during the proper time period may preenroll for the fall semester, summer session, or both. Students who are enrolled during the fall term may preregister for the winter semester shortly prior to the close of the first semester. Currently enrolled students who wish to preenroll for the upcoming semester in a division other than that in which they are presently enrolled must submit to the admissions office a change of division card.

Fees

A student who registers after the regular registration period may, because of closed courses, find difficulty in securing the subjects desired; moreover, a student may not be permitted to carry the full amount of work but must enroll for a proportionately reduced amount of work depending upon the date of enrollment. Ordinarily, no student will receive credit for work in any division of the university after the expiration of one-eighth of the scheduled time. The dates of the regular registration period are publicized in the university calendar.

Registration Cancellation

Students who have enrolled and paid their fees, but do not wish to attend the university, may cancel their registrations at any time prior to the first day of the semester. Cancellation forms may be obtained at the registration office, 9 Administration Building. The registration fee will be refunded in full minus a \$10.00 processing charge. Refunds will be made by mail approximately two weeks after classes begin.

Detailed information regarding fees and expenses is furnished in the University of Missouri-St. Louis *Undergraduate Bulletin*, the *Schedule of Courses*, and a pamphlet, *Tuition and Residence Rules*.

The university reserves the right to change fees and other charges at any time without advance notice.

All university fees must be paid in full at the time of registration as a condition of admission to classes. Students who preregister must pay fees by the announced deadline or the advanced registration will be cancelled and the student will be required to register again and pay fees during the regular registration period as indicated on the university calendar. Registration is not complete until all fees are paid. Partial payment or deferment of fees cannot be honored. Valid credit cards issued by Master Charge or BankAmericard will be accepted for payment of fees.

For the purpose of all rules regarding enrollment fees, courses taken as a hearer and courses taken for reduced credit will be counted at their normal credit value in computing the amount of fees to be paid. Students enrolling in zero credit courses are required to pay fees according to the equivalent credit of the course.

A student who presents a check to the university in payment of student fees, which for any reason is not honored by the bank upon which it is drawn, will be reinstated only upon payment of the amount of the check and a reinstatement fee of \$5. In addition, a fee for handling the returned checks will be charged.

UMSL provides quality education at moderate costs.



Approximately 85 per cent of UMSL graduates live and work in the St. Louis area.

Incidental Fee

All students enrolled in the university are required to pay an incidental fee as follows:

Regular Semester
\$270.00 for nine or more credit hours

Summer Session
\$135.00 for five or more credit hours

For any other sessions not specified above and for partial enrollments the incidental fee shall be calculated at the rate of \$31.00 per credit hour.

Nonresident Tuition Fee

A nonresident tuition fee, in addition to the incidental fee and other required fees, must be paid by any student who at the time of registration has not been a resident of Missouri for a period of at least one year immediately preceding such registration. (Definition of "residency" is outlined in the University of Missouri pamphlet *Tuition and Residence Rules* available in the cashier's office.)

It is the duty of each student to register under the proper residence and pay proper tuition fees, and it is also the student's duty to raise the question if there is a possibility that he or she is subject to such tuition fees.

The tuition fee, in addition to the incidental fee, for undergraduate students who are not residents of Missouri is:

Regular Semester
No fee for one to six credit hours
\$160.00 for seven credit hours
\$320.00 for eight credit hours
\$420.00 for nine credit hours
\$540.00 for ten or more credit hours

Summer Session

No fee for one to three credit hours
\$140.00 for four credit hours
\$270.00 for five or more credit hours

University Center and Student Activities Fee

Each student registered in the university is required to pay a University Center and Activities Fee as follows:

Regular Semester
\$24.50 for ten or more credit hours

Summer Session
\$12.25 for five or more credit hours

For any other sessions not specified above and for partial enrollments the University Center and Activities Fee shall be calculated at the rate of \$2.45 per credit hour or fraction thereof.

This fee is to be used for programs of broad interest within the university community. The fee is distributed as follows:

\$2.50 bond retirement on Multipurpose Building

\$10.00 bond retirement on University Center

\$7.00 Athletics

\$5.00 Student Activities

Music Fee

In addition to the incidental fee there is a fee for applied music as follows: for music majors, a single fee of \$45.00 per semester to cover all required applied music; and for nonmusic majors, a fee of \$45.00 per semester for each area in which the student enrolls for applied music, the defined areas being piano, voice, woodwinds, brass.

Delinquent Indebtedness

A student is required to clear all delinquent indebtedness to the university before a diploma may be released or transcript issued.

Diploma Fee

A fee of \$5.00 is charged for each degree conferred by this campus. A \$2.00 fee is charged for each certificate awarded.

Late Registration Fee

Any student registering after the close of the regular registration period shall pay a late registration fee of \$25.00. A student presenting a check to the university in payment of student fees which is returned unpaid and remains unpaid after the close of the regular registration period, shall be considered a late registrant and shall pay the \$25.00 late registration fee.

Petition Fee

Any student dropping, and/or adding, one or more courses at any one time, shall pay a fee of \$5.00.

Parking Fee

All students desiring to operate a motor vehicle on the campus must register it and pay a fee at the time of registration. Failure to comply with traffic regulations may subject the student to disciplinary action, payment of an additional fee, and the denial of the privilege of operating a motor vehicle on campus. Copies of the *Traffic Regulations for the University of Missouri-St. Louis* may be secured from the UMSL Police Office, room 120 Administration Building.

There will be a parking fee for each motor vehicle used by a student on campus based on \$2.50 per credit hour up to a maximum of \$25.00 per semester. The daily fee charge for students who do not drive regularly is \$.50. Special parking rates are available for car

The fee for motorcycles and motorscooters on the St. Louis campus is fixed at one-half the above fees.

The revenue from parking fees is used to construct and maintain roads, parking garages, and surface parking; to rent parking space off campus when necessary; to pay for the printing of parking stickers and regulations; and to pay for all other related expenses. Detailed information on parking regulations and fee refunds is available from the cashier's office.

Student Insurance

An optional accident and sickness insurance plan is available at low cost to students and their dependents. Information concerning premiums and coverage is available upon request from the cashier's office.

Transcript Fee

A fee of \$1.00 is charged for each official transcript of credits. A fee of \$.50 is charged for all photostatic copies of transcripts.

Refund of Fees

Regular Semester
Students withdrawing during the regular semester will be refunded the registration fee in accordance with the following schedule:

100 per cent refund less \$10.00 for the cost of handling registration if a student withdraws before the day classwork begins.

70 per cent refund if a student withdraws within two calendar weeks from and including the day classwork began.

50 per cent refund if a student withdraws between two and including six calendar weeks from the day classwork began.

No refund if a student withdraws after six calendar weeks from the day classwork began.

Summer Session

100 per cent refund less \$10.00 for the cost of handling registration if a student withdraws before the day classwork begins.

70 per cent refund if a student withdraws within one calendar week from and including the day classwork began.

50 per cent refund if a student withdraws between one and including three calendar weeks from the day classwork began.

No refund if a student withdraws after three calendar weeks from the day classwork began.

Refund of Parking Fees

Students leaving school or canceling parking privileges for which they have paid fees will receive upon return of scraps of their sticker a refund of fees paid in accordance with the following schedule:

Regular Semester

75 per cent refund if a student drops parking between the first and through the fourth week from the day classwork began.

50 per cent refund if a student drops parking between the fifth and through the eighth week from the day classwork began.

25 per cent refund if a student drops parking between the ninth and through the twelfth week from the day classwork began.

No refund if a student drops parking after twelve weeks from the day classwork began.

Summer Session

75 per cent refund if a student drops parking between the first and through the second week from the day classwork began.

50 per cent refund if a student drops parking between the third and through the fourth week from the day classwork began.

25 per cent refund if a student drops parking between the fifth and through the sixth week from the day classwork began.

No refund if a student drops parking after the sixth week from the day classwork began.

Financial Aid

Financial Aid is offered to students enrolled in the University of Missouri-St. Louis in the form of part-time employment, student loans, scholarships, and awards. For detailed information on financial assistance programs and application deadlines, contact the Office of Student Financial Aid, Room 10 Administration Building, 8001 Natural Bridge Road, St. Louis, Missouri 63121.

To assist worthy students who otherwise might not be able to attend the university, the Board of Curators of the University of Missouri has established a system of financial aid. This aid is available to qualified Missouri residents for attendance on the University of Missouri campuses at Columbia, Kansas City, Rolla, or St. Louis. The scholarships and awards are administered under separate quotas. They are not transferable from one campus to another.

Curators Freshman Scholars Program
Curators Freshman Scholars are selected in recognition of their outstanding academic achievement in high school and their potential for superior academic success in college. These scholars are chosen on the basis of high school rank, test scores, and the recommendation of the high school principal or counselor.

Curators Freshman Scholars must rank in the top three per cent of their graduating class and in the top 10 per cent on the college aptitude test. Students who are Missouri residents and who receive the certificate of recognition for showing highest scholastic promise in Missouri graduating classes are offered the designation of Curators Freshman Scholar. For every 100 students or fraction thereof in a high school graduating class, one student is designated as a Scholar. The full amount of the incidental

Freshman Scholar during his or her freshman year at the university.

University Scholars Program

University Scholars are selected in recognition of outstanding achievement while in college. University students classified as sophomores, juniors, or seniors are designated University Scholars provided they have achieved a specified high cumulative collegiate grade point average (limited to approximately the top five per cent of each class) over at least 24 acceptable hours excluding summer session. Students transferring to the university from other institutions of higher education are eligible for the designation of University Scholar provided their cumulative collegiate grade point averages meet the established standards and sufficient funds are available.

University Scholars are designated after the close of each regular academic year. The normal stipend is \$50.00 a semester for the following academic year if the student is a Missouri resident. Additional assistance depends upon the financial need of the individual. University Scholars in need of additional assistance should complete and submit an application for financial aid. A student who is not a resident of Missouri but is otherwise qualified for the designation of University Scholar may be so designated without any waiver of incidental fees.

University Waiver of Fees Program

To the degree possible within budgetary limits, and for the purpose of assisting deserving Missouri students to attend the university, the incidental fee will be waived in whole or in part, in accordance with the degree of need as determined by standard need analysis procedure, for those undergraduate students who meet specified academic standards. The financial need assessment will be made through the student

The majority of students hold either full-time or part-time jobs while attending school.





Entering freshmen must meet these criteria: Missouri residence; graduation from an accredited Missouri high school; rank in top 25 per cent of high school graduating class; rank in top 25 per cent on college aptitude test; and need financial assistance. The applicant is advised to discuss this matter with his or her high school counselor.

Upperclassmen (sophomores through seniors) must have achieved a specified cumulative grade point average over at least 24 acceptable hours excluding summer session. Students transferring from other institutions of higher education will be considered on the same basis as continuing students. An upperclass student's eligibility for a waiver of the incidental fee will be determined annually after the close of the regular academic year. An application showing need for financial aid is required for the waiver-of-fees. Forms are available in the student aid office.

Air Force ROTC College Scholarships
Scholarships are awarded to qualified cadets in the Air Force Reserve Officer Training Corps Program. The scholarships include tuition, fees, and laboratory expenses incurred during the regular session of the school year during which the cadet is enrolled in the AFROTC program. Scholarship recipients also receive \$100.00 per month for the period and reimbursement for cost of books. Applications (by high school seniors) for the four-year scholarship should be submitted to Headquarters AFROTC, Maxwell Air Force Base, Alabama, prior to mid-November. Cadets who do not receive the four-year scholarship may continue to compete annually under the program locally administered by the Aerospace Studies Program, St. Louis University, telephone 652-1022.

Army ROTC Scholarships

In addition to four-year ROTC scholarships awarded to graduating high school students, Army ROTC scholarships are available to qualified second, third, and fourth year students enrolled in Army ROTC. These scholarships pay full tuition, books, and lab fees plus \$100 monthly subsistence allowance for up to ten months of the school year. Selection for the three, two, and one-year scholarships is based upon academic achievement, leadership potential, and demonstrated motivation toward a career as a commissioned officer.

Additional information may be obtained from the Professor of Military Science, Washington University, telephone 863-0100, extension 4662.

Project UNITED

Project UNITED (University Needs in the Education of the Disadvantaged) is a financial and academic assistance program within the university committed to the educational needs particular to students in the metropolitan area. It is designed to provide special services for these students with academic and financial needs. It attempts to ease the student's burden by assuming the university's incidental fee (tuition) and by offering him or her supplementary academic help. During the summer prior to their freshman year, students under consideration for the program participate in a six-week preparatory session conducted by Project UNITED. Students receive academic advisement and aid in selecting courses for the fall semester. During the academic year, counseling, both individual and in group sessions, is carried on and supplementary academic assistance is maintained. Social and cultural activities round out the total program.

Participants in the program are chosen on the basis of a variety of factors: need, former academic preparation and achievement, and sustained interest and motivation. Interested students should inquire when they apply for admission to UMSL. Inquires should be directed to the Project UNITED Office, 132 Administration Building.

Services and Facilities

A university is more than students, faculty, classrooms, and degrees - it is a total experience. Theatre, films, music, student government, organizations, and many other activities at UMSL add to the many social, political, and cultural opportunities provided in the St. Louis metropolitan area.

Most of the student services and programs of the UMSL Student Affairs program are coordinated under the direction of the dean of student affairs. The dean initiates and administers special programs for the benefit of the student body as a whole and for various identifiable groups such as new students, older students, black students, veterans, evening students, and the handicapped.

The Office of the Dean can assist the student with most of the problems he or she might encounter at UMSL and serves as a referral service for questions concerning UMSL policies.

Alumni

As today's students form the present university community, UMSL's alumni help shape the future of UMSL by supporting necessary improvements. The Alumni Association and the Office of Alumni Activities work together to promote UMSL and to establish mutually beneficial relations between the campus and its alumni. Membership in the association is open to graduates and former students.

Projects sponsored by the association and the director of Alumni Activities include a renewable scholarship to a freshman, sophomore, junior, and senior student. Social activities such as Homecoming and Alumni Night provide an opportunity for alumni to meet and view the latest improvements on campus. The annual

of the area with an opportunity to visit UMSL and meet members of the university community.

Athletics
Intramurals

The intramural program is geared toward the interests and demands of the entire university community, including students, faculty, and staff. Competition is offered at the individual and team level, with some exclusive programs for both men and women.

The intramural staff encourages students and other UMSL personnel to take active roles in the creation of new intramural programs. Some of the recreation activities which are offered each school year include: flag football, basketball, volleyball, street and field hockey, swimming, racquetball, handball, golf, tennis, bowling, dance, soccer, and gymnastics.

Intercollegiate

Intercollegiate athletics are available for both men and women at UMSL. While women's athletics are just beginning to form, UMSL's Riverman varsity teams have earned winning tradition and brought national visibility to the university. Women's athletics will be expanded as interest is indicated for new sports. Currently, women compete in intercollegiate basketball, field hockey, volleyball, and tennis.

Of the eight Riverman intercollegiate teams, four have reached national championships in recent years. UMSL's soccer team, a national power, won the 1973 NCAA Division II national title. The university's baseball Rivermen earned consecutive trips to the NCAA Division II world series in 1972 and 1973.



Many activities are scheduled during the noon hour for the convenience of the students.

national finals in 1969 and 1971. Golf is the fourth UMSL team to gain prominence on a national scale, reaching NCAA championship tournaments three of the last four years. Wrestling, swimming, cross country, and tennis complete UMSL's intercollegiate athletic program.

Intramurals and intercollegiate athletics are supported in part by student activity fees. All UMSL students with validated ID's are admitted free to all UMSL home contests.

Black Culture Room

The Black Culture Room houses a tutorial service and is equipped with a study area and lounge. Initiated by the Association of Black Collegians, now called the Minority Student Service Coalition, the room is called Umajaa, an African word meaning "brothers and sisters working together".

Bookstore

The Bookstore is the campus headquarters for the ordering and selling of textbooks and supplementary reading materials including paperback books. Small items such as pens, notebooks, and paper supplies are available in the Bookstore. The Bookstore also sells college jewelry (including class rings), pennants, stickers, sweatshirts, and other insignia items. Commencement announcements, caps, and gowns are ordered through the Bookstore.

Counseling

The Counseling Service is organized to offer free professional assistance to students, faculty, and staff of the university with any concerns they may have of a personal, social, educational, or vocational nature. All contacts with counselors and psychologists on the Counseling Service staff are held in strictest confidence.

and group psychological counseling and consultation, sensitivity training, vocational testing, career choice guidance, and assistance with reading and study skills problems. In addition, a well-stocked library of materials pertaining to career choices and educational opportunities is housed with the service. The Miller Analogies Test, when part of a graduate student entrance requirement, is given upon request.

Special assistance for mature women entering or returning to college is provided through the Extension Division's Programs for Women. Individual consultation is offered regarding educational and vocational plans, time budgeting, financial problems, credit by examination, and other concerns related to the resumption of study after prolonged absence from the classroom.

Cultural Opportunities and Entertainment

The Director of Programming works with the University Program Board, comprised of students, in planning a variety of cultural, social, and extraeducational activities. These programs are subsidized with a portion of the students' activity fee. Program board offerings include:

Concerts

A series of informal concerts are held in the University Center lounge throughout the year. These are scheduled at the noon hour and have no admission charge. In addition to these performances, a number of weekend evening concerts, featuring a variety of musical forms, are held. A nominal admission is charged for these events. Performers who have appeared recently in this series include Cleo Laine & John Dankworth, The New York Pro Musica, and the Romeros.

Many social and special-interest organizations are represented at UMSL.

A variety of professional and amateur art forms are exhibited in Gallery 210.

Lectures

A wide range of lectures are scheduled each year. Some of the personalities who have visited the campus recently include Ralph Nader, Alex Haley, Harrison Salisbury, Sissy Farenthold, Daniel Schorr, Nikki Giovanni, Ramsey Clark, Nicholas Johnson, Raoul Berger, and William Ruckelshaus. There is no charge for admission to these programs.

Theatre

Each year the program board sponsors a number of performances by professional theatre companies. Recent offerings have included The Second City Revue, The Fantasticks, Jacques Brel is Alive & Well & Living in Paris, The Effect of Gamma Rays on Man-In-The-Moon Marigolds, The Night Thoreau Spent in Jail, and Two Gentlemen of Verona.

Films

Two series are scheduled each year. The weekend showings are of contemporary films and are open to the University community at a charge of \$.75. A second series, scheduled during the week, features a wide variety of film classics and is open to the university community at no charge.

Social Events

Several informal dances and one dinner dance are scheduled each year.

The program board often works in cooperation with the Performing Arts and Cultural Events Committee (PACE) of the University Senate to present programs complementing the many other cultural opportunities available in St. Louis. The poster collection which is displayed in the public areas of campus buildings is the result of one such cooperative effort.

Professional and amateur art is presented in

Committee. Forms ranging from African sculpture to the Americana of George Caleb Bingham have been subjects of exhibits at the gallery.

Food Service

Extensive snack bar and cafeteria facilities are available in the University Center. The former, a fast food service offering a wide variety of cooked-to-order items, is open fourteen hours a day, five days a week, with seating for nearly 500. For more substantial fare, the cafeteria is open weekdays for lunch. Catered parties are available at reasonable cost.

Health Center

The Student Health Center provides limited out-patient medical care primarily for students, and emergency medical care for all members of the university community.

A St. Louis physician is available on a part-time basis at the center. The physician is assisted by a permanent staff including a full-time registered nurse, part-time registered nurse, licensed practical nurse, and secretarial staff.

Patients are referred to health facilities in the St. Louis area when needed care is beyond the limitations of the center. The UMSL Police assist in the event of medical emergencies.

The Student Health Center, 125 Administration Building, is open to serve both the day and evening student population with hours from 7:30 a.m. to 9:30 p.m. Monday through Thursday, and from 7:30 a.m. to 5:30 p.m. on Friday.

Hotline Phones

An intercampus information service known as the Hotline is available to the UMSL

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Four Riverman teams have competed in national championships in recent years.

Numerous recreational facilities are available for use by the university community.

Twelve Hotline wall phones are conveniently located throughout the campus with at least one phone in every major building.

Information concerning directions and campus services and activities may be obtained by dialing 5865 for the campus film schedule, 5866 for cultural and athletic events, 5867 for a daily calendar of campus events, and 5148 for personal assistance. The Hotline phone numbers may be reached from outside the campus by dialing the university exchange, 453, before each extension.

Housing

There is no university owned or approved housing at UMSL. The Personnel Office maintains listings of rooms, apartments, and houses for rent, and real estate for sale for faculty, staff, and students.

Organizations

Whether a student's interest is on stage, writing for the "Current", checkmating a challenger, or organizing a group against lead poisoning, there is a place for him or her in one of the many student clubs and organizations.

Information concerning any of the recognized department clubs, fine art groups, fraternities and sororities, religious organizations, and special interest groups may be obtained from the director of student activities. The Office of Student Activities advises and assists these organizations in every way possible to facilitate the projects the students themselves carry out.

Other services provided by the student activities office include information on group and individual travel in the United States or abroad. This information includes booklets on hotels, rail passes, student I.D. cards, air

car pool service matches students' class schedules by computer, and notifies student by mail of the names, addresses, and telephone numbers of other students in their areas.

Placement

As an aid to undergraduates, graduating students, and alumni, the Placement Office offers a variety of services and acts as a central registry for full-time and part-time job opportunities off campus.

Those students undecided about career choices should utilize the career planning services which are available by appointment. This decision should be made as early as possible in order that the student might choose appropriate course work compatible with his or her career choice.

Representatives from businesses, government agencies, and school districts conduct on-campus interviews through the university Placement Office each regular semester. Students interested in securing full-time employment following graduation should normally register with the Placement Office at the beginning of their final year.

For those alumni seeking employment, the Placement Office maintains a continual listing of full-time positions, available without cost to the alumni. This listing is a computerized system operated by the Placement Office for those seeking an immediate full-time position. The system gives wide geographic scope to the registrant's job search.

Recreation

The athletic and exercise areas in the Multi-purpose Building and adjacent fields are available for use by the university community. During regular semester hours

on specified evenings.

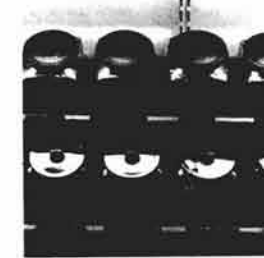
Facilities in the building and the surrounding outdoor areas include five basketball courts, four volleyball courts, four badminton courts, two handball courts, a wrestling room, a conditioning room, an olympic-sized swimming pool, a soccer field, baseball field, three intramural fields, and eight tennis courts. In addition, the building contains locker and shower facilities for all individuals wishing to take part in any intercollegiate, intramural, or recreational program.

Hard-surfaced courts for volleyball and basketball are available for student use behind the Administration Building. Various sports equipment including basketballs, volleyballs, and footballs may be checked out from the Dean of Students Office. The courts are not lighted for play after dark. In addition, there are two tennis courts located adjacent to the Administration Building which are available for student use on a first come, first served basis when the intramural or intercollegiate departments are not using them for practice or competition. The tennis courts are not lighted.

An outdoor, olympic-sized swimming pool located directly behind the Administration Building is open for faculty, staff, and students during the summer. Enrolled students may use the pool free of charge Sunday through Friday, while faculty, staff, and their families may use the pool daily on either a membership or daily fee basis.

The Fun Palace, located near the Administration Building, offers an amusement arcade. A snack bar, open weekends and nights, television lounge, and card room complete the variety of facilities.

Student Court



Council, the student government, makes recommendations to the Dean of Student Affairs concerning traffic violations, and adjudicates matters of grievances between individual students or groups of students.

The court also conducts impeachment proceedings under provisions of the Central Council Constitution.

Student Government

The university's student government is known as the Central Council. This organization works for student participation in all aspects of university life, university affairs and policy making, and carries out the philosophy that all students are encouraged to govern themselves and be responsible for their government and education. In addition, the council works with the faculty and administration toward the objective of coordinating and maintaining an institution of increasing service to the students, alumni, metropolitan community, and state.

Representatives are elected at large from among the day students, evening students, and graduate students on the basis of one representative for every 500 students enrolled in each respective division. In addition, each student organization with full university recognition is allowed to send one representative to the council.

Aware that newly enrolled students have a role to play in student government, the council's constitution provides that no sooner than four weeks and no later than six weeks after the start of the fall semester, students enrolled for the first time (incoming freshmen, transfer students, and newly enrolled graduate students), shall be allowed to elect one representative for each 500 newly enrolled students.

The University Center houses a bookstore, information desk, meeting rooms, lounges, snack bar, and cafeteria.

University Center

The University Center includes facilities designed specifically for the nonacademic activities of the campus community. The revenues generated by food service and sundry counter and Bookstore operations are combined with the student union fee and applied toward operation of the facilities and retirement of construction bonds. Special activities featured on weekends are open to current members of the university community and their individual guests.

The University Center also houses an information and ticket desk and a sundry counter. The university Bookstore, the Central Reservations Office for the campus, and offices of the Director of Programming and the Director of Student Activities are located in this building.

Comfortable meeting rooms and work areas, a Student Activities Center, and an informal lounge space with a seven-channel music system provide a relaxing environment for groups and individuals to work together. The center program is coordinated with that of the Extension Division so that facilities located in the J. C. Penney Building connected to the center will be available for university and community use as space availability and scheduling permit.

University Senate

Twenty-five students serve on the University Senate, which is composed of faculty and staff members as well as students. The Senate is responsible for recommending and implementing educational policy, particularly in the areas of academic and student affairs, reporting its actions to all members of the university faculty and to appropriate officers of the student body.

The Bylaws of the University of Missouri-St.

make recommendations to the Senate and to the appropriate administrative officers. Students, both members of the Senate and nonmembers, serve on such committees as Curriculum and Instruction, Admission and Student Aid, Library, Welfare and Grievances, Student Affairs, Student Publications, Athletics, Fiscal Resources and Long-Range Planning, Urban Affairs, and International Studies.

Veterans' Affairs Office

The Office of Veterans' Affairs, located in room 213 Administration Building, was established to make the transition from military life to student life as easy as possible. The Office of Veterans' Affairs helps to insure that each veteran is knowledgeable of the veteran's benefits, and will provide any other service the veteran should require in attaining his or her chosen goals. The office has available peer counselors, who are black and white, female and male, and are capable of assisting their fellow veterans.

In addition to the on-campus program, the Office of Veterans' Affairs maintains two Outreach Centers, one in the city and one in the county. The city center is specifically designed to provide the veteran with his or her high school equivalency (GED) by assisting in testing, remedial classroom work, and actually administering the GED tests. The county center is designed to be a "one-stop service center". The veteran can come to this center with any problem and will be provided with assistance from the staff or by referral to a community-based organization that can assist him or her. For further information contact the Office of Veterans' Affairs, phone 453-5315.

Women's Center

The Women's Center provides information and programming which will further educational development of women at UMSL. The center was organized by faculty, student, and staff women, and serves to promote a sense of community among these groups. In addition, the center functions as a neighborhood through which other existing and future activities concerned with women can be communicated and coordinated. The center provides a small library of historical and current literature written about women and/or by women; free information of special interest to women; ongoing discussion groups for men and women on topics of current interest; a lecture series with speakers on sexuality, women and psychology, marriage, careers, and positive aspects of feminism; a referral source for on- and off-campus medical and psychological personnel; and listings of educational and employment opportunities for women.

The university offers degree programs through the doctorate and is fully accredited by national and regional agencies.



Degrees

The academic structure of the university consists of the College of Arts and Sciences, the School of Business Administration, the School of Education, the Graduate School and the Evening College.

Information on undergraduate degrees offered by the university can be found on pages indicated:

Bachelor of Arts (A.B.)

Anthropology 162

History 90

Geography 54

Chemistry 62

Economics 70

English 80

French 118

German 118

History 100

Mathematics 110

Physics 90

Philosophy 130

Political science 138

Sociology 148

Psychology 154

Geology 162

Spanish 118

Bachelor of Science (B.S.)

Administration of justice 46

Business administration 182

Chemistry 62

Economics 70

Education 192

Physics 138

Bachelor of Music (B.M.) 90

Graduate degrees offered include the master of arts in economics, English, history, mathematics, political science and sociology. A master of science degree is offered in biology. A master of business administration and a master of education degree are also offered. In most instances master's degree programs can be completed in the evening. The doctor of philosophy degree is awarded in chemistry and psychology.

Detailed information on graduate programs is contained in the *Graduate Bulletin* available at the admissions office.

General Education Requirements

Each student must successfully complete the general requirements of the university, the school, or college to which he or she has been admitted, and the specific requirements of the student's area of specialization. The following are general education requirements for all degrees.

Credit Hours

All candidates for a baccalaureate degree must complete 120 semester hours. At least 45 of the 120 hours must be above the introductory level (courses numbered 100 or above, or comparable courses transferred). Each student must maintain a minimum 2.0 overall grade point average, and a minimum 2.0 grade point average in his or her area of specialization. Two degrees shall not be granted to a student until he or she has completed at least the equivalent of two semesters' work with at least 24 credit hours in addition to the requirements for one of the degrees.

Basic Skills

During the first year, every student shall demonstrate from his or her high school or college transcript, by examination, or by appropriate courses, competency in basic communicative and mathematical skills.

Communicative Skills

1 A satisfactory English score on the placement test and all "A's" and "B's" in high school English.

2 A grade of "C" or better in a college level English composition course.

Mathematics Skills

1 Completing two years of high school mathematics exclusive of general mathematics with grades of "C" or better.

2 Receiving a satisfactory score on the

3 Passing a college level mathematics course

4 Passing Mathematics 02

Breadth of Study

Each student must complete at least 42 hours chosen from the following three areas, with a minimum of at least three courses from each area:

1 Humanities

Literature; music history, literature, theory or appreciation; art history or appreciation (applied art and music courses will not count toward the humanities requirement); philosophy and logic.

2 Natural sciences and mathematics

3 Social sciences
administration of justice, geography, political science, history, economics, sociology, anthropology and psychology.

American History and Government

Each student who expects to complete an undergraduate degree in the University of Missouri must present as a requirement for graduation a course or courses in American history or government taken at the University of Missouri or at other colleges or universities within the state of Missouri.

This requirement will be satisfied by credit in one of the following courses:

History

- 3 American Civilization
- 4 American Civilization
- 5 American Civilization
- 120 Black History in the U.S.
- 301 United States History: Colonial America to 1763
- 302 United States History: Revolution and the New Nation, 1763-1815

303 United States History: Nationalism and Sectionalism, 1815-1860

304 United States History: 1860-1900

305 United States History: 1900-1940

306 United States History: 1940 to the Present

311a Constitutional History of the U.S. to 1865

311b Constitutional History of the U.S. since 1865

314 Growth of the American Economy

315a American Intellectual History

315b American Intellectual History

322a Black History in the U.S.: Slavery and Emancipation

Political Science

117 Government in Modern Society: American Politics

170 State and Local Government

179 Community Politics

235 Political Parties

320 Introduction to American Constitutional Law

The transfer student should inquire at the Office of the Dean of the appropriate division to determine whether he or she has satisfied this requirement.

Area of Specialization

Each student seeking a degree must be accepted into an area of specialization within the College of Arts and Sciences, the School of Business Administration, the School of Education, or into any comparable area in the Evening College. To be accepted, a student must formally petition either a department within the College of Arts and Sciences, the School of Business Administration, the School of Education, or a comparable area in the Evening College, and must meet the entrance requirements specified by the school or department of his or her choice. It is recommended that the



The academic structure of UMSL consists of the College of Arts and Sciences, the School of Business Administration, the School of Education, the Graduate School, the Evening College, and the Extension Division.

process during the sophomore year. To facilitate meeting these requirements the student should consult with the department or school of his or her choice at the earliest possible date following admission into the university.

Academic Residence

Each student must have been in residence for at least 24 of the last 30 hours of graded credit (exclusive of pass-fail grades), except under unusual circumstances to be decided by the dean.

Graduation

Each student is required to file a degree application form in the office of the dean of the school or college from which he or she intends to graduate at least two semesters before the expected graduation date. The office of the dean will conduct a final graduation check to determine if all requirements for graduation have been met.

In addition to campus-wide general education requirements, the individual schools and colleges may set up specified requisites as well. The student should check with the office of the divisional dean or with an adviser to be sure his or her program will fulfill all the requirements of the department and division, as well as the university general requirements.

In order to be assured of graduating at the end of a specific semester, all work for that semester and any delayed grades from previous semesters must be completed with the grades sent to the Office of Admissions and Registrar no later than the official date for submission of final semester grades.

Academic Policy

Course Descriptions

All undergraduate courses offered at the University of Missouri-St. Louis are listed by departments or fields of learning in alphabetical order within the school or college. For a description of graduate courses see the *Graduate Bulletin*. Approximately four weeks prior to the opening of each semester a *Schedule of Courses* is published listing the specific courses to be offered for that semester with the time of meeting, the building, and room number of each course.

This bulletin includes only those courses given on the campus of the University of Missouri-St. Louis. Separate bulletins are issued by the University of Missouri-Columbia, University of Missouri-Rolla, and University of Missouri-Kansas City.

The university reserves the right to cancel without notice any course listed in the *Undergraduate Bulletin*, the *Schedule of Courses*, or the *Graduate Bulletin* for any semester or to withdraw any courses which do not have adequate enrollment at the close of the registration period.

Course Numbering

Each course bears a distinguishing number which identifies it within the department and indicates, broadly, its rank. The numbering system is as follows:

0 to 09 nondegree credit.

1 to 99 courses primarily for freshmen and sophomores.

100 to 199 courses primarily for upperclassmen, no graduate credit.

200 to 299 courses for undergraduates,

graduate students, except those whose graduate major is in the department in which the course is given.

300 to 399 courses for undergraduate, appropriate professional students and for graduate students without restriction as to the student's graduate major.

400 to 499 primarily for graduate students and appropriate professional students in special programs; upperclass students are admitted to courses in this series only with the approval of the dean of the division in which the course is offered (see the *Graduate Bulletin*).

Semester Guide

Each course offered in the College of Arts and Sciences and in the School of Education indicates the semester in which the course is customarily offered or the frequency with which the course is customarily offered.

F fall

W winter

S summer (absence of this letter does not necessarily mean that the course is never offered in summer)

Alt. F alternate fall

Alt. W alternate winter

V variable

Information that a course will be offered in a given semester may mean there are plans to offer it either in day or evening hours. This information is tentative. It is subject to change at any time without prior notification and it does not indicate offers to contract. Descriptions of courses offered in the School of Business Administration and in the Evening College do not indicate semester frequency of offering. The *Announcement and Schedule of Courses* should be consulted.

Credit Hours

The unit of credit at the university is the semester hour, which represents a subject studied one period weekly for one semester or approximately 16 periods or for a total of approximately 16 periods for one term. In general, a course valued at three semester hours meets for three periods weekly for one semester. Thus a course valued at two credit hours will meet two periods per week for a semester; a five-hour course will meet five periods per week for a semester. The lecture period is normally 50 minutes in length and the usual laboratory period one hour and 50 minutes. Following the title of the course, the numbers of hours of credit are given in parentheses; thus Business Law (3). If the credit is variable, to be fixed in consultation with the teacher, that fact is shown by (credit arranged) or by the minimum and maximum credit, as Research

Grading System

A four-point grading system (A = 4, B = 3, C = 2, D = 1, F = 0) is used for all undergraduate students; A, B+, B, C, and F grading system is used for graduate students.

At the close of each semester and summer session the director of admissions shall provide the student with grades and mail transcripts of undergraduate students a copy of the student's grades. Undergraduate students 21 years of age or over may request that grades not be sent to their parents.

The point average is computed by dividing the total quality points (number of credit hours for a course multiplied by value of grade received) by the total number of hours completed.

Withdrawals/Delayed Grades

class meeting times or as designated by the Committee on Curriculum and Instruction. A student whose work is incomplete at the end of any semester and has, in the judgment of the instructor, sufficient reasons for failure to complete work, may, with the approval of the instructor and the department chairman, be assigned a grade of "delayed." Such work must be made up no later than one semester after the delayed grade is given for undergraduate students, and no later than one year for graduate students, or the grade automatically becomes "F." However, the instructor may, in unusual circumstances, extend this time limit.

A summer session cannot be counted as a semester within the meaning of the regulation. Notice of a change in a delayed grade shall be furnished the director of admissions on a special form.

When, in the judgment of the instructor, there is no basis for evaluating the work of a student who does not officially drop a course or officially withdraw from the university, the student shall be assigned a mark of "Y" (unauthorized withdrawal-no basis for evaluation). If no grade is assigned by the instructor the grade of "Y" will be assigned. A "Y" grade may be changed to "Excused" only by petition to the Committee on Admissions.

Pass-Fail Option

Undergraduate students who are in good standing have the option of taking on a pass-fail grading basis up to 24 credit hours during their academic careers.

Under the system students may take elective courses or courses which satisfy the general education requirements. In most cases, courses required for a specific degree may not be taken on the pass-fail basis. Academic departments may designate other

More than 70 per cent of the UMSL faculty hold doctoral degrees, a figure far above the national average.

not be taken under the option. Students register for courses in the normal manner, and may exercise the pass-fail option by notifying the office of the dean of the appropriate division before the end of the first four weeks of the term. Instructors are not informed which students are taking courses on the pass-fail system.

"Pass" grades ("A" through "D") have no numerical value in computing a student's overall academic average, but will satisfy hourly graduation requirements. A grade of "F" received on the pass-fail system will be computed in the overall grade point average as if the student had received a grade of "F" on the regular grading scale.

Repeating Courses

No student who has passed a course shall be given credit for repeating the course except in those courses which require a minimum grade of "C" as a prerequisite for other courses in the same department. In such cases, a student receiving a "D" or "F" grade does not receive double credit hours toward graduation, but the points of the grade assigned him or her and the hours of the repeated course are used in computing his or her grade point average.

Prerequisites

A minimum grade of "C" shall be required to meet the prerequisite requirement of any course except with permission of the department in which the second course is to be taught. An academic standing prerequisite is stated by class, as senior standing (senior class standing). Requirements for class standing are variable; students should ascertain the requirements for their particular division.

Individual restrictions of certain courses are listed in the description of courses. "Consent

means that departmental consent (approval or permission) or consent of the instructor is required for that course.

Course Load

Fifteen hours is considered a normal full-time work load during the fall and winter semesters. Six hours is a normal load for summer session students. The minimum full-time enrollment is 12 hours, excluding any physical education or military science. Students who have demonstrated ability to carry successfully more than 16 hours may, with the approval of their adviser and dean, enroll for additional hours. Under no circumstances may the student's enrollment exceed 20 hours in a regular semester or 10 hours in a summer session.

Attendance

Students are expected to attend class regularly, and in accordance with the UMSL Bylaws, the faculty may set up penalties for excessive absences. Any student who is absent from class for more than three successive days shall be reported by the instructor to the dean.

Students should report an extended absence to the office of their divisional dean. An absence realized in advance should be reported to the instructors of courses the student will miss. Make up of examinations or work missed is allowed at the discretion of the instructor.

However, any student who is excused from class for valid reasons by the dean of his division shall be allowed, if possible, to make up work missed, provided the instructor is notified in writing by the dean.

Dropping/Adding Courses

To change his or her original enrollment a student must secure the approval of his or



Students may drop/add courses to their daily schedules by use of the petition form which may be obtained at the divisional deans' offices. As many as five courses may be dropped/added on one petition form. For each petition form there is a \$5.00 fee. No student may enter a course after the first two weeks of the semester or the first week of a summer session. A student may withdraw from a course without a grade until the end of the first four weeks of the semester or the first two weeks of the summer session.

After the end of the first four weeks of the semester and until the end of twelve weeks (or from the end of the first two weeks of the summer session and until the end of six weeks), a student may withdraw from a course with a grade of "excused" providing the student is passing the course at the time of his or her withdrawal and receives the signatures of his or her instructor, adviser, and a representative of the dean's office. Otherwise, he or she will receive a grade of "F". Any student who ceases to attend classes but fails to drop officially shall receive a grade of "F" or "Y."

Following the twelfth week of a regular semester and the sixth week of a summer session "Excused" grades are issued only in exceptional instances where instructors' and deans' approvals are given. These grades will be recorded on the students' official records at the close of the semester or session; if a grade of "F" is recorded, it will be counted in the hours attempted in computing the grade point average. No partial credit shall be granted any student who withdraws from a course during any semester, or otherwise fails to complete the work required for full credit in the course.

Section Changing

Students may change sections of courses (changes in class time) in which they are enrolled. Forms for doing this may be obtained, completed and submitted at the departmental office for day courses and at the Evening College office for evening courses. Course cards should be obtained for the sections being added and submitted with the forms. There is no fee for section changing.

Change of Major

To change an academic major, the student should consult with his or her adviser and the office of the dean of the division in which he or she is enrolled.

A student admitted to any division may pursue work in other divisions, but only under conditions laid down by the faculty of the other division. The chairman of the major department in which the student is working toward a degree shall determine which courses from other divisions, or other institutions, shall apply as credit toward the degree.

Withdrawal After Classes Have Begun

After classes begin students may withdraw from the university by completion of the withdrawal form, which may be obtained at the office of the divisional deans. During the first four weeks of a regular semester (fall or winter) and the first two weeks of a summer session students may withdraw from the university without receiving grades. Following this period grades of "F" or "Excused" must be issued in accordance with faculty regulations. If the students are passing, grades of "Excused" are issued; if the students are failing, grades of "F" are issued. Following the twelfth week of a regular semester and the sixth week of a summer session "Excused" grades are issued only in exceptional instances where

These grades will be recorded on the students' official records at the close of the semester or session; if a grade of "F" is recorded, it will be counted as hours attempted in computing the grade point average. No partial credit shall be granted any student who withdraws from school during any semester, or otherwise fails to complete the work required for full credit in the course. Students who cease attending classes without officially withdrawing from the university will be issued a grade of "F" or "Y", which will be counted as hours attempted in computing grade point averages.

Academic Probation, Suspension, and Dismissal

Generally, a beginning student (with less than 12 hours completed) is placed on probation if his or her grade point average is less than 1.5. An advanced student (with 12 or more hours completed) is placed on academic probation if his or her grade point average is less than 1.75.

The dean may place a student on probation for miscellaneous other reasons such as excessive absences or neglect of academic duties. To be removed from probationary status, a student must make a semester average of 2.0 and have a cumulative average of 1.75.

A beginning student will be subject to suspension if the student passes less than half his or her work or his or grade point average drops below 1.0. An advanced student may be suspended if the student passes less than two-thirds of his or her work, the student's semester average is less than 1.5 or his or her cumulative grade point average is below 1.75.

Any student may be suspended if he or she

more semesters, not necessarily consecutive, and again becomes subject to probation. The dean may retain any student on probation rather than suspend him or her if circumstances justify such action.

A student who has been suspended may be dismissed if he or she again becomes subject to suspension. A student placed on probation because of a poor scholastic record in another institution shall be regarded as having been once suspended under these rules.

Normally, a student who has been dismissed shall not be considered for readmission. However, in certain unusual cases, a student may be readmitted on probationary status after one year.

A student admitted on probation to a summer session shall enroll for a minimum of six academic hours. If the student receives any grade below "C", his or her work will be reviewed by the dean of the division or the appropriate committee to determine eligibility to reenroll. Any student enrolled in the summer session whose grade point average is below 1.5, may have his or her work reviewed. A student suspended or dismissed from one division shall not be admitted to any other division until he or she would be eligible for readmission to the original division, without the consent of the divisional dean or appropriate committee. In such an event, the dean or committee shall file a written statement for the student's official record stating the reasons governing the decision.

Academic Dishonesty

Academic dishonesty is considered one of the most serious offenses an UMSL student can commit, for it defies the academic integrity of the university and indicates that

association with the university. Those guilty of dishonesty may be dismissed from the university.

Plagiarism is considered a dishonest act. Plagiarism consists of using other people's names, statements, or approaches without giving these people full credit in a citation. Plagiarism also includes writing a paper made up solely of others' statements and names without any original thought of one's own, even if full citation is given to the original authors.

Degrees

Degrees shall be conferred at commencement with candidates present for awarding of the diploma. Only in unusual circumstances may a degree be conferred *in absentia*.

Honors

At the close of each semester, the College of Arts and Sciences, the School of Business Administration and the School of Education send out letters of commendation. These letters go to those undergraduate students completing at least nine hours of graded courses with a grade point average of 3.0 or above for the semester.

Who's Who Among Students In American Universities and Colleges
Forms are available in the offices of the divisional academic deans, dean of student affairs office and the student activities office for nominating students to *Who's Who Among Students in American Universities and Colleges*.

Eligible students may be nominated by any student (whether for himself or for another student), by any member of the faculty or by any member of the administration. Criteria

scholastic ability (a cumulative grade point average of 2.5 or higher), participation and leadership in academic and extracurricular activities, and service to the school and promise of future usefulness. For further information on eligibility requirements and nomination deadlines, contact one of the offices mentioned above.

Latin Honors

Graduation with Latin honors is determined as follows: cum laude--3.2 to 3.49 grade point average and must have attended UMSL for 48 graded hours; magna cum laude--3.5 to 3.79 grade point average and must have attended UMSL for 48 graded hours; summa cum laude--3.8 to 4.0 grade point average and must have attended UMSL for 72 graded hours. All honors must be recommended by the major department.

Transcripts

The director of admissions will furnish a transcript of credits to the student upon written request and payment of a fee by the student or by his or her parent or guardian without prior approval from the student unless the student is over 21. The fee for an official transcript sent directly from the admissions office to another school or employer is \$1.00. An official copy provided directly to the student is \$.50.

A student transferring to another campus of the University of Missouri may request the UMSL director of admissions to furnish a transcript to the director of admissions of the other campus. There is no cost for this service.

Requests for transcripts from organizations supporting a student or with fee compensation programs will not be honored unless the student has filed a consent form in the Office of Admission and Records.

No transcript is issued to or for any student who has a financial obligation to the university until the obligation has been paid in full.

Transfer Within The University of Missouri System

UMSL will allow the transfer of undergraduate students to another campus of the university with a minimum of difficulty, provided such transfers are not made for the purpose of avoiding disciplinary or academic requirements.

A student within the last 30 hours of graduation may take a limited number of courses at another campus of the university, provided the last 15 hours are taken on this campus, and provided further that the work has been approved previously by both the dean of the division in which the student is enrolled and his or her major department.

Acceptable credits earned on other campuses of the university shall be transferred at the letter earned. All grades shall transfer including the grades "D" and "F" and shall be computed in the grade point average except where the student has earned 12 or more acceptable credit hours at another institution outside the University of Missouri system prior to acceptance at UMSL. In such case, grades from the University of Missouri system will be treated as other transfer credits. Students whose grade point average is less than 2.0 normally will not be allowed to transfer to this campus.

The commitment of the university is to serve as directly as possible the needs of its urban environment.

There is a growing recognition that the four-year college experience is but one part of an extended learning process which is lifelong.



Program

The College of Arts and Sciences consists of over 250 full-time faculty in the following 14 academic departments: administration of justice, biology, chemistry, economics, English, fine arts, history, mathematical sciences, modern foreign languages and literatures, philosophy, physics, political science, psychology, and sociology and anthropology.

The college has a twofold commitment to liberal education. On the one hand it provides through its general education offerings an opportunity for the student to acquire a breadth of knowledge and understanding and a grounding in the basic tools and skills of intellectual inquiry. On the other hand, it provides through its departmental degree programs an opportunity for the student to acquire depth in a specific field of study.

Such an educational experience is also intended to provide a basic preparation for the student's vocational life. The sharp distinction sometimes made between liberal and career education is no longer a useful way to distinguish a college education from that of a trade school. Preparation for careers is one of the primary goals of students at UMSL, and rightly so. The responsibility of the college in this regard is to provide the kind of learning experience which encourages responsible vocational choice, enriches the meaning of vocation with the substance of humane reflection, and provides a setting in which the vocational preparation itself may go on without being narrowly defined in its meaning and scope.

Evening College and Extension

There is a growing recognition that the four-year college experience is but one part of an extended learning process which is

the pressures on the student to complete a degree within four years and has fostered a variety of continuing education opportunities which permit the student to continue learning beyond high school at his or her own pace. This awareness, coupled with the high enrollment of working students at UMSL, has led to increasing cooperation of the College of Arts and Sciences with the Evening College and the Extension Division of the university. Arts and Sciences faculty teach regularly in the Evening College with an increasing number of arts and sciences degree programs being available to students entirely through evening study. The Arts and Sciences Extension extends the talents of the faculty into the larger community through numerous off-campus courses, conferences, and programs. Some undergraduate and postgraduate internships have been created through extension for students in local governmental and social agencies.

All of this is in keeping with the commitment of this university to serve as directly as possible the needs of its urban environment.

Academic Advising

All undergraduate students entering UMSL at the freshman or sophomore level are enrolled in the College of Arts and Sciences and receive academic advising from the Office of the Dean, Lucas Hall, Room 303, until such time as they declare a departmental major. Students are normally expected to declare the major or academic objective no later than the beginning of their junior year. Whenever a student decides on a major he or she should contact the dean's office to be assigned a faculty adviser in the appropriate discipline. Students are encouraged to consult with their academic adviser early in the development of their major program of study.

Preparation for careers is one of the primary goals of students at UMSL.



Students are encouraged to consult with their academic adviser early in the development of their major program of study.

advising assistance for all arts and sciences students with or without a major is readily available in the Office of the Dean. Students with questions or problems of any nature should feel free to contact the advising staff for direct assistance or referral. All of the following matters may be handled in the dean's office: making a change in course schedule, evaluating transfer credit, withdrawing from school, placing a course on a pass-fail, and filing for degree candidacy.

Students transferring into the College of Arts and Sciences from other institutions may request assistance from the dean's office to make the transition as smooth as possible. Arts and sciences advisers will evaluate all transfer credit to determine its applicability to specialized degree requirements of the college. Students transferring from a junior college with associates degrees will have their credits evaluated according to the same criteria applied to all other transfer credit. Requesting the associate degree does not exempt the student from meeting the specialized lower division degree requirements of the university and the specialized requirements of departments or divisions of the university.

Degree Candidacy

Every student in the college should file a degree application with the dean's office at least two full semesters before his or her expected graduation date. This form is available in the dean's office.

Transfer to the School of Education or Business Administration

Students planning to take a degree in the School of Education or the School of Business Administration are enrolled in the College of Arts and Sciences until they have earned 60 college credit hours with a cumulative grade point average of 2.0, and,

Administration, have satisfied the general education requirements specified by that school. These students need not meet graduation requirements of the college, as they are responsible for meeting the requirements set by the school into which they wish to be admitted.

Teacher Certification

Students wishing to obtain teacher certification may choose either of the following alternatives:

- 1 Work toward the A.B. degree in the College of Arts and Sciences by meeting the requirements of a departmental major and taking the necessary courses for teacher certification in the School of Education.
- 2 Transfer to the School of Education (after completion of 60 credit hours of course work) to obtain the B.S. degree in Education with a concentration in an approved area offered within the College of Arts and Sciences.

Requirements

College Requirements

All students enrolled in a degree program within the College of Arts and Sciences must meet the following requirements:

1 The university general education requirements listed on pages 32.

2 The non-Euro-American studies requirement of the college.

3 The requirements of the specific baccalaureate degree program (B.A., B.S., or B.M.) in which the student is enrolled in the college.

4 The departmental requirements set by the department in which the student chooses to major. In some circumstances an interdisciplinary program involving two or more departments may be devised. These requirements are described in the departmental listings which follow.

Non-Euro-American Studies Requirement

In order to expose all students to a culture radically different from their own the college requires that every student take a three-hour course which focuses primarily and substantially upon aspects of culture arising from the natives of that culture and not upon the interactions of the culture with Euro-American cultures.

The college requirement in non-Euro-American studies may be met by taking any one of the following courses:

Anthropology

- 201 Cultures of Middle America
- 203 Cultures of South Asia
- 205 Cultures of Southeast Asia
- 207 Cultures of Native North America

Art
145 Survey of Oriental Art
207 Primitive Art

Music
5 Introduction to Non-Western Music

History
61 Asian Civilization
62 Asian Civilization
71 Latin American Civilization
361 Modern Japan: 1850 to Present
362 Modern China: 1800 to Present

Philosophy
170 Asian Philosophy

Political Science
253 Political Systems of South America
254 Political Systems of Mexico, Central America and the Caribbean
255 Asian Comparative Politics
352 The Politics of Modernization

Degree Requirements

Bachelor of Arts (A.B.) Degree

Every A.B. degree candidate must successfully complete a curriculum which includes either a departmental major or an approved integrated interdisciplinary field. A major must include at least 30 credit hours, no more than 45 hours in the major department. The requirements of the individual departments vary within these areas.

All degree candidates must complete 13 foreign language credit hours or the equivalent in foreign language proficiency in one foreign language.

Satisfactory completion of a foreign language course numbered 100 or 101 meets the requirement. Students entering with no high school foreign language units must enroll in Language 1 and complete the following sequence: 1, 2, 101 (or 100).

For the recent years of the language on the high school level, with above average performance, are necessary for the student to perform satisfactorily in Language 2. If the student's background is deficient, he or she must enroll in Language 1.

Four years of high school language are necessary for a student to enroll in Language 101 (or 100). A student with four high school units in one language is exempt from the language requirement.

Any student who wishes to be exempt and who has excelled in his or her courses or otherwise acquired language proficiency must take a proficiency examination which will be given in January and August. Specific dates, times and places will be announced in the course schedules.) A passing grade will indicate that the student has achieved a level of proficiency equal to Language 101 and has fulfilled the foreign

language requirement. With the exception of native speakers, no student will be permitted to take a course above the 101 level without taking the proficiency examination.

Native speakers may meet the requirement by presenting proof of competence. The department will certify native speakers of those languages taught at the university. Those proficient in other languages must submit certification of competence to the College of Arts and Sciences.

Students in German, Russian, and French may substitute Scientific Languages 100 for Language 101 whenever a course is offered.

Students not majoring in music or art may take a total of 8 credit hours of applied music and/or studio art courses, including credit transferred.

Bachelor of Science (B.S.) Degree

The College offers the B.S. degree in the administration of justice, chemistry, economics, physics, and applied physics (with a concentration in astrophysics possible). In general, the requirements are the same as the A.B. degree except that more credit hours in the major discipline may be counted toward satisfying the 120 hours required for the degree. The college does not require a foreign language proficiency for this degree but individual departments may require a language for their major.

Bachelor of Music (B.M.) Degree

The requirements for the B.M. degree are the same as the A.B. degree with the addition of courses in music and education leading to teacher certification. The college does not require a foreign language proficiency for this degree; however, foreign language study is required for applied voice

Administration of Justice

Program

The Administration of Justice (AOJ) program offers work leading to the bachelor of science degree in administration of justice and master of science degree in political science with an emphasis in administration of justice.

Academic work and participation in various extension and research projects take place within the context of the following broad departmental objectives:

The administration of justice faculty shares in the general education mission of the College of Arts and Sciences.

Education in the justice process is most effective when it takes place in a setting which encourages relationships with operating agencies. This is in keeping with the professional orientation of the department.

Administration of Justice programs should be truly interdisciplinary. Therefore, the education of both the faculty and the students should be broad and systematic.

The administration of justice faculty is representative of a diverse range of interests and backgrounds of academic training. Most of the full-time faculty members have served as criminal justice practitioners, as well as consultants with operating criminal justice agencies. In addition, the AOJ faculty includes many distinguished practitioners who instruct on a part-time basis. The program is also strengthened by the regular appointment of distinguished visiting faculty members.

The phrase, "criminal justice studies" is subject to a variety of definitions and frames of references. The one adopted by the UMSL Administration of Justice program is

the State University of New York (S.U.N.Y.) at Albany.

"Criminal justice studies are integrated, interdisciplinary sequences of scholarly teaching and research in the behavioral and social sciences (including law and public administration) focused on the social problems of crime."

Criminal justice studies are certainly a major focal point of interest for both faculty and students. However, the collective interest of the program is broader than this, and includes, as well, interest in the fields of administrative and social justice. For this and other reasons, many students consider administration of justice to be an appropriate "prelegal" major.

The interdisciplinary character of the program is designed to provide students with methods of approaching and understanding the assumptions, the values, and the processes of the justice enterprise. Within the career orientation of the program, students are given innumerable concrete situations by which to analyze their own values as they relate to particular social problems.

General Education Requirements

The administration of justice major must satisfy the general education requirements of the university listed on page 32, the general education requirements of the College of Arts and Sciences as they apply to the B.S. degree, and the requirements of the administration of justice program.

13 hours of foreign language required for the A.B. degree is optional for the B.S. degree. Students may, and are encouraged to, take a foreign language. For those not wishing to take a foreign language, 13 hours in social sciences above the general education requirements are required. The three-hour Euro-American requirement may be met by taking any approved non-Euro-American course.

The department endorses the general use of the pass-fail option. Nearly all courses may be taken on a pass-fail basis by nonmajors. Majors, on the other hand, may not take any AOJ course on a pass-fail basis, nor may they take either Sociology 30, Interpretation of Sociological Data, or Sociology 130, Research Methods, on a pass-fail basis.

Degree Requirements

Core Curriculum

Majors in administration of justice must complete both the requirements of the core curriculum and one of the four separate career options. The core curriculum consists of the following courses:

Sociology

- 10 Introduction to Sociology
- 30 Interpretation of Sociological Data
- 214 Juvenile Delinquency & Youth Crimes
- 326 Criminology

AOJ

- 40 Introduction to Administration of Justice
- 70 Criminal Law & Procedure
- 99 The City
- 200 American System of Justice-Institutional
- 201 The Criminal Justice System: Conflicting Perspectives I
- 202 The Criminal Justice System: Conflicting Perspectives II
- 380 Seminar in Administration of Justice
- 399 Independent Study & Research

Completion of the core curriculum is designed to provide all AOJ majors with a common educational foundation, irrespective of career goals or options. Completion of the core curriculum should assure a grounding and familiarization with the following substantive areas: survey of selected social and urban problems; introduction to the analysis of social data and statistical methods; introduction to criminal law and procedure; introduction to and survey analysis of criminal justice process; introduction to theories of crime and delinquency causation and control, and application of selected social research methods to particular administration of justice problems.

As many as 18 units of administration of

Most of the full-time administration of justice faculty have served as criminal justice practitioners, as well as consultants with operating criminal justice agencies.



transferred, as part of the major, from Missouri junior colleges. Students transferring from other institutions are encouraged to check with the Admissions Office relative to transfer of credit for specific courses.

Career Options

In addition to the core curriculum, students must complete the requirements of one of the career options. Broadly speaking, these options are designed to increase the student's familiarization and to provide educative skills in one of the following career fields: policing, rehabilitation and treatment of adult and juvenile offenders, juvenile delinquency or crime prevention, or criminal justice planning.

The requirements of the four separate options are as follows:

American Policing System

Economics
51 Principles of Microeconomics

AOJ

71 Evidence
250 Police Administration
260 Police-Community Relations
325 Criminal Law in Action

Political Science

140 Public Administration

Plus nine (9) additional units, above the introductory level, of courses selected from the social sciences or philosophy.

Treatment of Offenders

Psychology
3 General Psychology
145 Abnormal Psychology
155 Community Psychology

Sociology
130 Research Methods

AOJ

310 Community Approaches to Prevention and Control of Crime and Delinquency
340 Probation and Parole

and six (6) units from the following:

Psychology

171 Adolescent Psychology
225 Behavior Modification
246 Introduction to Clinical Psychology
248 Psychological Research and Theory in Juvenile Delinquency
265 Psychological Tests and Measurements

and six (6) units from the following:

AOJ

205 The Juvenile Justice System
225 The Juvenile and the Law
227 Urban Law: Poverty and the Justice System
325 Criminal Law in Action
330 Correctional Institutions

Etiology & Prevention

Psychology
3 General Psychology

and three (3) units selected from:

Psychology

145 Abnormal Psychology
170 Child Psychology
171 Adolescent Psychology

Sociology

130 Research Methods

AOJ

205 The Juvenile Justice System
225 The Juvenile and the Law, or
227 Urban Law: Poverty and the Justice

Justice processes are not only representative of the aims, values, and fears of the populace; as they change, so does the criminal justice process.

Community Approaches to Prevention and Control of Crime and Delinquency
Correctional Institutions
Probation and Parole

Criminal Justice Planning

Business
Fundamentals of Digital Computer Programming

Mathematics

Pre-Calculus Mathematics
Survey Calculus

Business

Introduction to Systems Programming
Operations Research

Economics

The Urban Environment and Planning

and six (6) units from the following:

The Juvenile Justice System
The Juvenile and the Law
Urban Law: Poverty and the Justice System
Community Approaches to Prevention and Control of Crime and Delinquency

In addition to these specific educational development patterns, the Administration of Justice Department permits selected students to work out special curricular options to meet special needs. With the approval of a departmental adviser, students may merge two or more options; in addition, it is possible to work out a special major in cooperation with another instructional department.

Students have an opportunity to engage in the extracurricular and professional activities of the AOJ Students Association.

Administration of Justice Faculty

Gordon E. Misner, D. Crim.
University of California director, professor

Isaac Gurman, M.A.
associate professor

Richard B. Hoffman, MBA
University of California at Los Angeles visiting
associate professor, administration of justice and
quantitative management science

Thomas A. Johnson, D. Crim.
University of California visiting associate professor
and associate professor, University of Arizona

Richard H. Ward, D. Crim.
University of California visiting associate professor
and Dean of Students, associate professor, John Jay
College of Criminal Justice (CUNY)

Henry Burns, Jr., Ph.D.
SIU, Carbondale visiting assistant professor and
assistant professor, Pennsylvania State University

Richard D. Baron, J.D.
University of Michigan assistant professor

Stanley E. Goldstein, J.D.
Washington University assistant professor

Hon. Theodore McMillian, J.D.
St. Louis University assistant professor

David L. Smith, J.D.
University of Minnesota assistant professor and
statewide extension coordinator

Alphonso Jackson, J.D.
Washington University assistant professor

Ben Brashears, M.A.
instructor

J. Noel Criscuola, M.A., M. Crim.
instructor

P.T. Raffaele Scalia, M.A.
instructor

David P. Duff, M.S.
instructor

David O. Fischer, LL.B.
instructor

Charles Mann, M.S.
instructor

Herman M. Wood, M.S.

Harry Mellman, Ph.D.
University of Illinois lecturer

Eugene P. Schwartz, M.S.W.
lecturer and program coordinator, AOJ Extension

Administration of Justice Description of Courses

Prerequisites may be waived by consent of instructor.

Introduction to Administration of Justice (3)

Survey of the problem areas in the administration of
the justice system delineated by recent national
commission studies. Formerly AOJ 100.

Criminal Law and Procedure (3) (F&W)

Analysis of substantive criminal law and its
procedural aspects. Formerly AOJ 220.

Evidence (3) (F)

Elemental questions of evidence and theory of
proof including hearsay, documentary proof,
circumstantial evidence, relevance, and presumptions.
Formerly AOJ 221.

Crime and Punishment (3) (V)

Prerequisites: Psychology 75, Sociology 75, and
Economics 75) An interdisciplinary course. An
introduction to sociological and psychological
causes of crime and punishment. An
analysis of private and governmental responses to
the causes of crime and delinquent behavior.

Freshman Seminar (3) (F&W)

Prerequisite: Freshman standing and consent of
instructor. Topics to be announced. Weekly seminars
presented by individual conferences. Limited to 20
students.

Inner City (3) (F&W)

Prerequisites: History 99, Political Science 99, Psychology
99, and Economics 99)
Prerequisite: 12 hours of college credit. An
interdisciplinary course. Consideration of economic
and social conditions in urban institutions, historical developments in
urbanization, problems of the inner city, suburbia and
the metropolitan area, ethnic groups, stratification and
sociological implications of urban living.

American System of Justice--Institutional (3)

Prerequisite: Junior standing or consent of instructor.
Institutions through which the criminal law is
administered: police, courts, correctional institutions;
methods (prevention of crime, punishment,
rehabilitation, etc.) of the institutions, organization of
the processes through which each function;
the impact of law making (to arrest or not, sentencing,
parole, paroling).

The Criminal Justice System: Conflicting Perspectives I (3) (F)

Prerequisite: AOJ 200. An examination of the
conflicting and converging needs and skills of three
roles necessary for a sound criminal justice

activities, and skills of the citizen, criminal justice
professional, and social scientist will be identified and
analyzed.

202 The Criminal Justice System: Conflicting Perspectives II (3) (W)

Prerequisite: AOJ 201 or consent of instructor. An
examination of competing social interests served by
the criminal justice system, past and present.
Attention will focus on the need for and the nature of
a criminal law that serves the public interest and not
private interests.

203 Regional Organization of Criminal Justice Resources (3)

Prerequisite: AOJ 40 and 70. Crime and criminal
justice resources in relation to the development of
metropolitan regions. Congruent and incongruent
patterns of criminal and delinquent activity and
criminal justice organization. Policy and planning
considerations.

205 The Juvenile Justice System (3) (F&W)

Prerequisite: AOJ 40 or consent of instructor.
Intensive analysis of the social administration of
juvenile justice within the U.S. Particular emphasis will
be placed on the decision-making process of police,
court and probation officials regarding apprehension
and processing of juveniles. Recent Supreme Court
decisions and citizen efforts to revise the Juvenile
Code will also be examined.

215 Criminal Justice Data (3)

An analysis of data needs in criminal justice agencies.
Emphasis will be placed upon data as it relates to
administrative, policy planning, and program
evaluation requirements, as well as the ethical
criteria for its release.

225 The Juvenile and the Law (3) (F&W)

Prerequisite: Junior standing. A study of the
relationship of the civil and administrative law as an
instrument for the control and protection of juveniles.
Subject matter will be discussed in relationship to the
legally protected rights of juveniles.

227 Urban Law: Poverty and the Justice System (3) (F&W)

Prerequisite: AOJ 70 or equivalent, or consent of the
instructor. Examination of administrative regulations
and the civil law process as it affects the life of the
urban and the rural and the poor.

250 Police Administration (3) (F)

Prerequisite: AOJ 40 or consent of instructor.
Organization and administration of police systems;
peculiar characteristics of police organizations and
police personnel, relation of police departments to

police departments. In general, the application of generalizations from public administration to police systems.

251 Special Administrative Problems in the Administration of Justice (1-6) (V)

Prerequisite: Consent of instructor. Selected topics, approved by the faculty, to fill special agency educational needs offered only in special seminars, workshops, conferences, and institutions in cooperation with the Extension Division.

260 Police-Community Relations (3) (W)

Prerequisite: AOJ 40 or consent of instructor. An analysis of current Police-Community Relations in large central cities, and a study of the development of Police-Community Relations units. An analysis of the internal and external problems involved in a successful program development.

290 Special Readings (1-6) (V)

Prerequisite: Consent of instructor. Individualized study, under regular faculty supervision, designed to meet particular educational needs of selected students.

295 Field Placement (3) (F&W)

Prerequisite: Soc. 120, AOJ 40 and 200, or consent of instructor. Field placement under faculty supervision, in administration of justice agencies. It may be substituted for AOJ 399. (may be repeated once for credit.)

310 Community Approaches to Prevention and Control of Crime and Delinquency (3) (F&W)

Prerequisite: AOJ 40 and 200 and Senior standing, or consent of instructor. An analysis of the rationale and the principles of community organizations as they seek to address the problems of crime and delinquency. Programs in the St. Louis Metropolitan Area will be used as case studies.

325 Criminal Law in Action (3) (F&W)

Prerequisite: AOJ 70 or equivalent, and Senior standing or consent of instructor. An examination of the legal and social objectives of the criminal law and the diverse limitations on the exercise of police power.

330 Correctional Institutions (3) (F)

Prerequisite: AOJ 40 and 200 and Senior standing, or consent of instructor. The Correctional setting as an aspect of the criminal justice system. An analysis of the administrative involvement and a study of the modes of organization and management which seem applicable to these types of settings.

340 Probation and Parole (3) (W)

consent of instructor. The historical development of the rehabilitative ideal of probation and parole. An analysis of the principles of probation and parole, both juvenile and adult.

360 Comparative Justice System (3) (V)

Prerequisite AOJ 70 and 200 and Senior standing. Analysis of the criminal justice systems of selected nations in an attempt to identify similarities and dissimilarities with American practice. Particular attention will be focused upon the police and corrections systems.

380 Seminar in Administration of Justice (3) (F&W)

Prerequisite: Soc. 120, AOJ 70 and 200, Senior standing, or consent of instructor. Study of selected special problems in the administration of justice. (May be repeated once for credit.)

399 Independent Study and Research (3) (F&W)

Prerequisite: Soc. 120, AOJ 70 and 200, Senior standing, or consent of instructor. Directed research and reading. May involve the performance of a research task in cooperation with an operating criminal justice agency. (May be repeated once for credit.)

*General education
is an opportunity
to acquire a breadth
of knowledge as well
as depth in a specific
area of study.*



Biology

Program

The biology department offers work at the undergraduate level leading to the bachelor of arts in biology, bachelor of arts in biology with teacher certification in cooperation with the School of Education, and bachelor of science in education with a major in Biology in cooperation with the School of Education. The department also offers the master of science degree.

In general, the program for biology majors is designed to prepare the student for further graduate training in research, as well as further professional training in areas such as medicine, dentistry, veterinary medicine, and optometry. Biology majors also enter a wide variety of related fields such as medical technology, public health, bioengineering, and high school biology teaching.

Biology staff members are currently engaged in teaching and research in areas ranging from bacteriology to behavior, biochemistry, immunobiology, and population studies. Because knowledge of these areas is fundamental to many aspects of modern biology, majors have the opportunity of taking courses which can help them to develop both theoretical and experimental backgrounds necessary for further work in some of the most rapidly expanding fields of biological science. The department also offers undergraduate majors the opportunity for indepth studies in specific areas of interest through advanced courses, seminars, and individualized research programs. Majors are also encouraged to attend a summer session, ordinarily between the junior and senior year, at a field biology station. Many biological stations offer financial support in the form of summer fellowships.

The biology department presently occupies approximately one-half of Stadler Hall, and contains research laboratories, teaching

laboratories, environmental chambers, greenhouse, animal care rooms, and a large array of supporting equipment such as an ultracentrifuge, electron microscope, amino acid analyzer, etc. Also available to the department are wildlife facilities at Weldon Springs and Tyson Valley.

General Education Requirements

A biology major must satisfy the general education requirements of the University listed on page 32, and the general education requirements of the College of Arts and Sciences listed on page 44. Courses in biology may be used to meet the university's science and mathematics area requirement. Because many graduate schools require proficiency in French, German, or Russian, it is recommended that students satisfy the university's foreign language requirement with one of these languages. Biology majors who wish to substitute other languages for those listed may do so in consultation with their advisor.

In accordance with the policy of the College of Arts and Sciences, biology majors may take a minimum of 24 credit hours of course work on a pass-fail basis. However, the pass-fail option may not be used by biology majors for biology courses other than Biology 289, Seminar, Biology 290, Research, nor for required courses that must be taken in the chemistry, mathematics, and physics departments.

Degree Requirements

The minimum course requirements for biology majors total 33 credit hours in biology, of which 13 hours must include:

- 10 Introductory Biology
- 224 Genetics
- 276 Biological Chemistry
- 289 Senior Seminar

Considerable flexibility is available to the student in choosing the remaining 20 hours of biology courses, but a minimum of one course is to be taken from each of the following three major biological areas:

Cellular and Molecular Area

- 216 Microbiology
- 235 Development
- 310 Cellular Biology
- 314 Virology
- 317 Immunobiology
- 334 Plant Physiology and Development

Organismal Area

- 213 General Physiology
- 235 Development
- 250 Plant Form and Function
- 280 Animal Behavior
- 334 Plant Physiology and Development
- 381 Biosystematics

Population and Ecology Area

- 220 General Ecology
- 242 Population Biology
- 246 Evolution
- 280 Animal Behavior
- 342 Population and Community Ecology
- 381 Biosystematics
- 395 Field Biology
- 396 Marine Biology

Courses taken to fulfill a requirement in one of the above areas may not be counted for that purpose in another area. Biology majors must also choose and complete three biology

The biology program is designed to prepare students for graduate training in research, as well as further training in areas such as medicine, dentistry, veterinary medicine, and optometry.

electives in biology at the 200 level or above which are in addition to those used to fulfill the other requirements.

Related Area Requirements

Each biology major must complete the following related area requirements:

Chemistry

15 hours of chemistry including:

- 11 Introductory Chemistry I
- 12 Introductory Chemistry II
- 261 Structural Organic Chemistry
- 263 Techniques of Organic Chemistry

Many dental and medical schools require an additional semester of organic chemistry. The student should inquire whether this additional requirement can be filled by the biochemistry course.

Mathematics

Mathematics 101, Survey Calculus, or its equivalent.

Physics

One year's course work in introductory physics, Physics 11 and 12, Basic Physics I and II.

Additional work in chemistry, mathematics, and physics is recommended.

A tentative schedule assigning courses to specific semesters and specific calendar years is available in the biology department.

Biology Faculty

Frederic D. Friedman, Ph.D.
University of Wisconsin chairman, associate professor

Robert S. Bader, Ph.D.
University of Chicago dean, College of Arts and Sciences, professor

Frank H. Moyer, Ph.D.
Johns Hopkins University professor

George W. Strickberger, Ph.D.
Columbia University professor

Thomas J. Delente, Ph.D.
University of Caen visiting associate professor

Frederic P. Friedman, Ph.D.
University of Kansas associate professor

Robert T. Heberlein, Ph.D.
Northwestern University associate professor

Robert Martin Sage, Ph.D.
University of Texas-Austin associate professor

Robert E. Averett, Ph.D.
University of Texas-Austin assistant professor

Robert Derby, Ph.D.
University of New York assistant professor

Frederic H. Fleming, Ph.D.
University of Michigan assistant professor

Charles R. Granger, Ph.D.
University of Iowa assistant professor

Frederic E. Grogan, Ph.D.
University of Missouri-Columbia assistant professor

Robert E. Ridgway, Ph.D.
University of Texas-Austin assistant professor

Robert A. Wilke, M.S.
Instructor

Frederic J. Jud, A.B.
Assistant instructor

Biology Description of Courses

Prerequisites may be waived by consent of department or instructor.

1 General Biology (3)

Emphasis on fundamental principles of biology. Biology 1 can be applied toward fulfillment of the general education requirement in science. Biology 1 does not satisfy the prerequisite requirements of other courses in biology at the 200 level or above. Students who plan to pursue a career in medicine or one of the medical oriented professions should enroll in Biology 10 rather than Biology 1. Three hours lecture per week.

3 General Biology Laboratory (2)

Prerequisite: Biology 1 (May be taken concurrently). Laboratory course to accompany Biology 1. Biology 3 can be used to fulfill the general education requirements in a laboratory science. Biology 3 does not meet the prerequisite requirements for other courses in biology. Three and one-half hours of laboratory per week.

10 Introductory Biology (5)

Prerequisite: Chemistry 11 (May be taken concurrently). A one semester prerequisite for students intending to major in biology or take biology courses at the 200 level or above. This course offers an introduction to some of the biological properties and relationships of organisms, both plant and animal. The laboratory work emphasizes an experimental approach to biological processes. Three hours lecture and three and one-half hours laboratory per week.

90 Freshman Seminar (3) (F&W)

Prerequisite: Freshman standing and high school biology. Topics to be announced for each section. Weekly seminars and individual conferences. Sections limited to 12-15 students.

110 The Biology of Man (3)

Prerequisite: Biology 10 and Chemistry 11. The basic lectures and assigned readings concerning man's characteristics as a primate and his changing relationship to the environment. Discussions of aggression, sexuality, modern medicine, human evolution, environmental exploitation, and other topics of current interest. Three hours lecture per week.

115 Human Heredity and Evolution (3)

Prerequisite: Biology I. The study of heredity and evolution with special reference to human populations. Three hours lecture per week.

116 Microbiology and Man (3)

Prerequisite: Biology 1 or its equivalent. A survey of microbial structure, genetics, and physiology, with special emphasis on their interaction with

discussed in relation to maintenance of health. Three hours lecture per week.

118 Microbiology and Man Laboratory (2)
Prerequisite: Must be taken concurrently with Biology 116. Standard techniques for identification, growth and control of microorganisms. Three and one-half hours laboratory per week.

120 Environmental Biology (3)
Prerequisite: Biology I. An examination of the biological basis of current and environmental problems, with emphasis upon landscapes and populations. Three hours lecture per week.

213 General Physiology (3)
Prerequisite: Biology 10 and Chemistry 11. The basic functional aspects of organ systems in relation to the physicochemical properties of protoplasm. Three hours lecture per week.

215 General Physiology Laboratory (2)
Prerequisite: Biology 213 (May be taken concurrently). Instrumental and experimental studies in Physiology. Three and one-half hours laboratory per week.

216 Microbiology (3)
Prerequisite: Biology 10. A study of microorganisms, their metabolism, genetics, and their interaction with other forms of life. Three hours lecture per week.

218 Microbiology Laboratory (2)
Prerequisite: Biology 216 (May be taken concurrently). Experimental studies and procedures of microbiological techniques. Three and one-half hours laboratory per week.

220 General Ecology (3)
Prerequisite: Biology 10. An examination of the relationships between living organisms and their environment. Three hours lecture per week.

222 General Ecology Laboratory (2)
Prerequisite: Biology 220 (May be taken concurrently). An analysis of factors influencing the abundance and distribution of living organisms. Three and one-half hours laboratory per week.

224 Genetics (3)
Prerequisite: Biology 10. The fundamental principles of inheritance, including classical genetic theory as well as recent advances in the molecular basis of heredity. Three hours lecture per week.

226 Genetics Laboratory (2)
Prerequisite: Biology 224 (May be taken concurrently). Laboratory to accompany Biology 224. Three and

235 Development (3)
Prerequisite: Biology 10. (Biology 224 recommended, but not required). Basic principles of development from the point of view of growth, morphogenesis and differentiation. Three hours lecture per week.

237 Development Laboratory (2)
Prerequisite: Biology 235 (May be taken concurrently). Laboratory to accompany Biology 235. Three and one-half hours laboratory per week.

242 Population Biology (3)
Prerequisite: Biology 224. The structure, operation and evolution of populations. Three hours lecture per week.

244 Population Biology Laboratory (2)
Prerequisite: Biology 242 (May be taken concurrently). Laboratory to accompany Biology 242. Three and one-half hours laboratory per week, and/or field studies to be arranged.

246 Evolution (3)
Prerequisite: Biology 224. The course and mechanisms of organic evolution. Three hours lecture per week.

250 Plant Form and Function (3)
Prerequisite: Biology 10. A general survey of the plant groups from algae through angiosperms. Morphology, reproduction, and central physiological concepts unique to the plant kingdom will be discussed. Three hours lecture per week.

252 Plant Form and Function Laboratory (2)
Prerequisite: Biology 250 (May be taken concurrently). Examination of representatives of the plant kingdom and experimentation in plant physiology. Three and one-half hours laboratory per week.

276 Biological Chemistry (3)
Prerequisite: Chemistry 261, 263 and Biology 10. The chemistry and function of the living cell and its constituents, and the interactions and conversions of intracellular substances. Three hours lecture per week.

278 Biological Chemistry Laboratory (2)
Prerequisite: Biology 276 (May be taken concurrently). Experiments designed to illustrate biochemical principles and modern biochemical procedures. Three and one-half hours laboratory per week.

280 Animal Behavior (3)
Prerequisite: Biology 10, or consent of instructor. The study of invertebrate and vertebrate behavior, including developmental, genetic and ecological aspects of behavior; behavior interactions within and

Animal Behavior Laboratory (2)
Prerequisite: Biology 280 (May be taken concurrently). Observational and experimental studies of animal behavior in the field and laboratory. Three and one-half hours laboratory per week.

Methods of Teaching Biology in Secondary Schools (3)
Prerequisite: Education 285
Prerequisite: Education 163 and a near-major in Education. A study of the scope and sequence of the life science courses in the school curriculum, with emphasis on the selection and organization of materials and methods of instruction and evaluation. Taken concurrently with student teaching.

Seminar (2)
Prerequisite: None. Required of all biology majors during a semester of their senior year. Presentation of research papers by students.

Research (credit arranged).

Morphology of Nonvascular Plants (3)
Prerequisite: Biology 250, or consent of instructor. An intensive study of algae through the mosses and ferns, stressing relationships between the groups. Field studies and phytoecology stressed. Three hours lecture per week.

Morphology of Vascular Plants (3)
Prerequisite: Biology 250, or permission of instructor. An intensive study of ferns through angiosperms, stressing relationships between the groups. Field studies and phytoecology stressed. Three hours lecture per week.

Nonvascular Plant Laboratory (2)
Prerequisite: Biology 305 (May be taken concurrently). Laboratory to accompany Biology 305. Three and one-half hours laboratory per week.

Vascular Plant Laboratory (2)
Prerequisite: Biology 306 (May be taken concurrently). Laboratory to accompany Biology 306. Three and one-half hours laboratory per week.

Cellular Biology (3)
Prerequisite: Biology 224 and 276. (Biology 276 may be taken concurrently). Chemistry, structure, and function of cells. Three hours lecture per week.

Microbiology (3)
Prerequisite: Biology 216. A comparative study of the structure, function, and chemical structures, reproduction, and evolution of animal and bacterial viruses, including their interactions with host cells. Three hours

316 Virology Laboratory (2)
Prerequisite: Biology 218 or equivalent and Biology 314 (May be taken concurrently). Laboratory to accompany Biology 314. Three and one-half hours laboratory per week.

317 Immunobiology (3)
Prerequisite: Biology 276, Chemistry 261. The fundamental principles and concepts of immunology and immunochemistry. Emphasis on the relation of immunological phenomena to biological phenomena and biological problems. Three hours lecture per week.

319 Immunobiology Laboratory (2)
Prerequisite: Biology 317 (May be taken concurrently). Basic experimental procedures in immunology. Introduction to experimental evidence underlying concepts of immunology. Three and one-half hours laboratory per week.

321 Advanced Genetics (3)
Prerequisite: Biology 224. Selected topics in genetic theory. May be taken more than once for credit. Three hours lecture per week.

323 Advanced Genetics Laboratory (2)
Prerequisite: Biology 321 (May be taken concurrently). Instrumentation and experimental studies in genetic analysis. Three and one-half hours laboratory per week.

326 Microbial Genetics (3)
Prerequisites: Biology 216 and 224 or equivalent. An analysis of the mechanisms of variation in bacteria and viruses including: mutation adaptation, sexual recombination, transduction, and transformation.

328 Microbial Genetics Laboratory (2)
Prerequisites: Biology 218 or equivalent and Biology 326 (May be taken concurrently). Laboratory to accompany Biology 326. Three and one-half hours laboratory per week.

330 Advanced Development (3)
Prerequisite: Biology 235. A discussion of experimental approaches as applied to the analysis of development. Three hours lecture per week.

332 Advanced Development Laboratory (2)
Prerequisite: Biology 330 (May be taken concurrently). Instruction and practice in the application of experimental techniques to the study of development. Three and one-half hours laboratory per week to be arranged.

334 Plant Physiology and Development (3)
Prerequisite: Biology 250, 276 or Chemistry 261 or

physiological processes associated with plant growth and development. Three hours lecture per week.

336 Plant Physiology and Development Laboratory (2)

Prerequisite: Biology 334 (May be taken concurrently). Laboratory to accompany Biology 334. Three and one-half hours laboratory per week.

342 Population and Community Ecology (3)

Prerequisite: Biology 242. Studies of the structure and organization of natural communities stressing the abundance and distribution of species, the regulation of species and the evolution of demographic parameters in populations. Three hours lecture per week.

344 Population and Community Ecology Laboratory (2)

Prerequisite: Biology 342 (May be taken concurrently). Laboratory and field studies of the organization of communities. Three and one-half hours laboratory per week.

360 Techniques in Electron Microscopy (2)

Prerequisite: Biology 10 and Junior standing or consent of instructor. A general consideration of the application of electron microscopy to biological research. Discussion of transmission and scanning electron microscopy and associated techniques of specimen preparation. Designed for the professional biologists. Two lecture hours per week.

362 Electron Microscopy Laboratory (3)

Prerequisite: Must be taken concurrently with Biology 360. (Permission of instructor required). Students will develop skill in techniques associated with transmission and scanning electron microscopy and learn instrument operation and minor servicing. Individual research problems. Seven hours laboratory per week.

376 Advanced Biological Chemistry (3)

Prerequisite: Biology 276. Topics include control of cellular metabolism, membrane transport mechanisms of action of enzymes and hormones, and enzyme kinetics. Three lecture hours per week.

378 Advanced Biological Chemistry Laboratory (2)

Prerequisites: Biology 278 or consent of instructor. Independent projects related to analytical and synthetic procedures. Three and one-half hours laboratory per week.

380 Advanced Animal Behavior (3)

Prerequisite: Biology 280. Selected topics in animal

381 Biosystematics (3)

Prerequisites: Biology 10 and junior standing, or consent of instructor. Biosynthetic relationships of secondary compounds and their implications to taxonomy, phylogeny, and population biology. Three hours lecture per week.

382 Advanced Animal Behavior Laboratory (2)

Prerequisite: Biology 380 (May be taken concurrently). Advanced observational and experimental studies of animal behavior in the field and laboratory.

383 Biosystematics Laboratory (2)

Prerequisite: Biology 381 (Must be taken concurrently). Techniques and instrumentation necessary for the isolation and identification of various types of secondary compounds considered. Three and one-half hours laboratory per week.

384 Behavioral Genetics (3)

Prerequisites: Biology 224 and 280 or equivalent. The genetic analysis of behavioral characteristics. Three hours lecture per week.

392 Selected Topics (Arranged hours)

Prerequisite: Junior standing and consent of instructor. Selected topics in Biology. The topics will vary each semester. Topics offered for the following semester will be available in the departmental office. Credit arranged. May be taken more than once for credit.

395 Field Biology (5)

Prerequisite: Three courses in Biology and consent of the instructor. Intensive study of the flora and fauna of selected areas of the North American continent including a ten day field trip during Spring recess and associated laboratory work. The area studied will be announced in the schedule of courses. Note: There is a specific fee charged for this course.

396 Marine Biology (3)

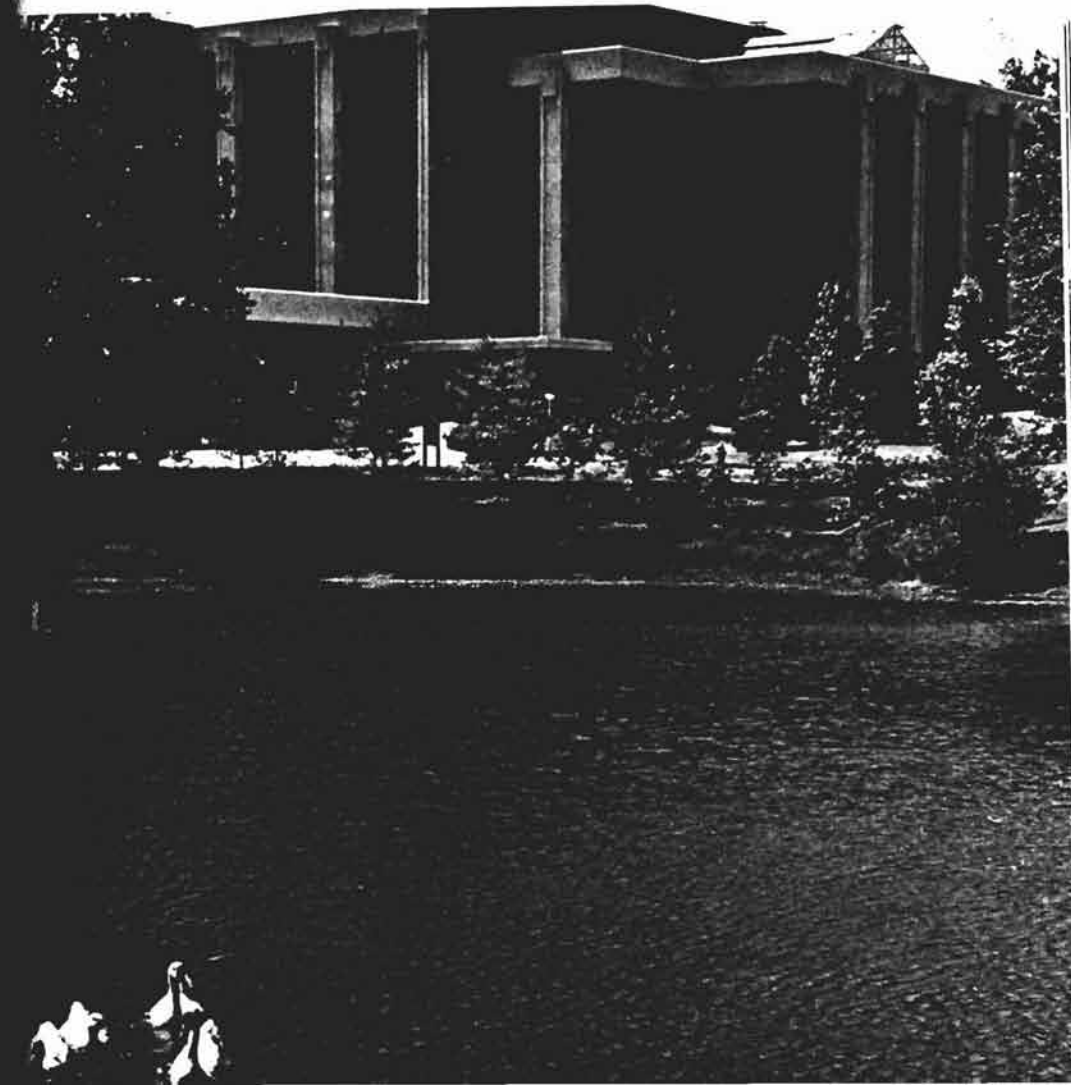
Prerequisites: Eight hours of Biology and consent of instructor. A survey of the major groups of marine plants and animals and their interactions in the various North American marine communities. Three hours lecture per week.

398 Marine Biology Laboratory (2)

Prerequisite: Biology 396. Intensive laboratory and field study of selected North American marine communities. Consult the instructor for the area to be visited. Students must pay their own travel and living expenses.

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Biology facilities include research and teaching laboratories, environmental chambers, greenhouse, animal care rooms, and a large array of supporting equipment.



Chemistry

Program

The Department of Chemistry offers courses for five undergraduate degree programs as well as a Ph.D. program. Information on the Ph.D. program is available in the UMSL *Graduate Bulletin*. The undergraduate degree programs offered are the bachelor of arts in chemistry, the bachelor of science in chemistry, the bachelor of science in education with an emphasis in chemistry in cooperation with School of Education, the bachelor of arts in chemistry with teacher certification in cooperation with School of Education and the bachelor of arts in chemistry with a business option.

A major in chemistry provides excellent pre-professional education for those interested in the health sciences (medicine, dentistry, etc.), and a double major in chemistry and biology is often chosen by premedical and premedical students, as well as those interested in graduate work in biochemistry and biology.

The Department of Chemistry has been accredited by the American Chemical Society. Students who complete the requirements for the bachelor of science degree (B.S.) in chemistry are certified to the American Chemical Society and prepared for graduate study in chemistry.

The chemistry faculty is currently engaged in research in organic, inorganic, and physical chemistry.

General Education Requirements

Each chemistry major must satisfy the general education requirements of the university listed on page 32 and the general education requirements of the College of Arts and Sciences listed on page 44. Courses in chemistry may be used to meet the university's science and mathematics area requirement. For A.B. degree candidates, fulfilling the foreign language requirement of the College of Arts and Sciences meets the foreign language requirement of the chemistry department. For B.S. degree candidates, the foreign language requirement should be met in German or Russian. Chemistry majors will normally include Language 100 in their foreign language sequence.

No chemistry major may take a required chemistry, mathematics, or physics course on the pass-fail option. The candidate for the B.S. degree may not take the six elective hours in science on the pass-fail option. The chemistry major may take language courses on the pass-fail option. Chemistry 11, Introductory Chemistry I, and Chemistry 12, Introductory Chemistry II, may not be taken on pass-fail basis by any freshman student.

Degree Requirements

Bachelor of Arts in Chemistry
The degree is intended primarily for professional students in the health sciences and related areas, as well as prelaw students interested in patent law. The candidate for the A.B. degree with a major in chemistry must complete 32 hours of chemistry including:

Introductory Chemistry I
Introductory Chemistry II
Quantitative Analysis
Introduction to Chemical Literature
Physical Chemistry I
Physical Chemistry II
Laboratory in Physical Chemistry I
Structural Organic Chemistry
Organic Reactions
Techniques of Organic Chemistry
Seminar

A minimum of 32 credit hours and a maximum of 45 credit hours of chemistry may be applied toward the A.B. degree in chemistry. Each chemistry major must attend a seminar and pass a comprehensive examination during his or her senior year.

Bachelor of Science in Chemistry
This is the first professional degree in chemistry. It may be taken as a terminal degree by students intending to become professional chemists. It also provides excellent preparation for students planning graduate work in chemistry or biochemistry. The candidate for the B.S. in chemistry degree must complete the 32 hours of chemistry required for the A.B. and additional 12 hours in chemistry including:

Laboratory in Physical Chemistry II
Synthetic and Analytical Methods of Organic Chemistry
Instrumental Analysis
Inorganic Chemistry I

A double major in chemistry and biology is often chosen by premedical and premedical students as well as those interested in graduate work in biochemistry and biology.

The B.S. candidate must also select six hours from the fields of astronomy, biology, chemistry, mathematics, or physics; at least three of these hours must be in chemistry at the 200 level or higher. These six additional hours may be taken in Chemistry 290, Chemical Research. Students are encouraged to elect this option.

A minimum of 47 and a maximum of 50 credit hours of chemistry may be applied toward the B.S. degree in chemistry. B.S. degree candidates must present a seminar and pass a comprehensive examination during the senior year.

Related Area Requirements

Candidates for the A.B. or B.S. degree with a major in chemistry must complete 15 hours of mathematics including:

Mathematics
80 Analytic Geometry and Calculus I
175 Analytic Geometry and Calculus II
201 Analytic Geometry and Calculus III

Physics

111 Physics: Mechanics and Heat
112 Physics: Electricity, Magnetism, and Optics
one physics laboratory course, preferably 201, Elementary Electronics I

Bachelor of Science in Secondary Education with an Emphasis in Chemistry

The general requirements for the B.S. degree in secondary education are given on page 206. Candidates for this degree with an emphasis in chemistry must complete 32 hours of credit in chemistry following the same program as the A.B. degree in chemistry with the following exceptions:

Physics
1 Foundations of Modern Physical



- 111 Physics: Mechanics and Heat
 112 Physics: Electricity, Magnetism, and Optics
 One physics laboratory course

Chemistry 280, Methods of Teaching Chemistry in Secondary Schools, is required instead of Chemistry 202, Introduction to Chemical Literature, and Chemistry 289, Seminar.

Bachelor of Arts in Chemistry with Teacher Certification

Candidates in this program must complete all of the requirements for the bachelor of arts in chemistry. In addition the following courses must be taken:

Education

- 101 The School in Contemporary Society
 163 Techniques of Secondary School Teaching
 271 Secondary School Student Teaching
 302 The Psychology of Teaching & Learning

Chemistry

- 280 Methods of Teaching Chemistry in Secondary Schools

Psychology

- 3 General Psychology
 171 Adolescent Psychology

Bachelor of Arts in Chemistry with a Business Option

The following suggested program has been prepared in cooperation with the School of Business for those students who contemplate a career in chemical sales, market research, etc. Candidates in this program must complete all of the requirements for the bachelor of arts in chemistry. The following core program is suggested:



Economics

- 51 Principles of Microeconomics

Business Administration

- 31 Elementary Statistics
 140 Fundamentals of Financial Accounting

Following completion of this course curriculum the student may wish to choose from one of the following further options:

Quantitative Management

- Business Administration
 109 COBOL/Business Systems
 202 Fundamentals of Production
 308 Production and Operations Management
 375 Operations Research

Marketing Management

- Business Administration
 106 Basic Marketing
 275 Marketing Intelligence, and/or
 301 Buyer Behavior

Financial Management

- Business Administration
 204 Financial Management
 334 Investments
 350 Financial Policies

Accounting

- Business Administration
 145 Fundamentals of Managerial Accounting
 340 Intermediate Accounting Theory, and/or
 345 Cost Accounting

Chemistry Faculty

James W. Armbruster, Ph.D.
 Washington University chairman, associate professor

Robert F. Berndt, Ph.D.
 California Institute of Technology professor

Thomas Jones, Ph.D.
 Washington University professor

Robert W. Murray, Ph.D.
 Washington University professor

Frederic C. Barton, Ph.D.
 University of Liverpool associate professor

Robert Block, Ph.D.
 Harvard University associate professor

John R. Corey, Ph.D.
 University of Wisconsin associate professor

John Y. Corey, Ph.D.
 University of Wisconsin associate professor

Joseph P. Feder, Ph.D.
 California Institute of Technology visiting associate professor

William L. Garin, Ph.D.
 State University associate professor

Robert W. Larsen, Ph.D.
 Northwestern University associate professor

Robert I. Stearns, Ph.D.
 The University visiting associate professor

Joseph E. K. Winter, Ph.D.
 Johns Hopkins University associate professor

Robert W. Barnett, Ph.D.
 University of Wisconsin assistant professor

Robert S. Chickos, Ph.D.
 Ball University assistant professor

Robert L. Gutweiler, Ph.D.
 St. Louis University visiting assistant professor

Richard H. Harris, Ph.D.
 Michigan State University assistant professor

Robert L. Kalman, Ph.D.
 St. Louis University visiting assistant professor

Robert A. Miller, Ph.D.
 The University assistant professor

Robert E. Penn, Ph.D.

John I. Reynolds, Ph.D.
 University of Washington visiting assistant professor

Robert A. Rouse, Ph.D.
 Northwestern University assistant professor

Luis Echegoyen, Ph.D.
 University of Puerto Rico research associate

David P. Higley, Ph.D.
 University of Texas-Austin research associate

George Semeniuk, Ph.D.
 Duke University research associate

Frank E. Stary, Ph.D.
 University of Cincinnati research associate

Staff

Robert Cabaniss
 glassblower

Jack L. Coombs, B.A.
 laboratory stores manager

William Garrison
 electronics technician

Norman Windsor
 electronics technician

Chemistry Description of Courses

Prerequisites may be waived by consent of department.

1 General Chemistry (3) (F&W)

Presents a broad introductory survey of chemical principles. Chemistry 1 may be applied toward the fulfillment of the general education requirements in science. However, it does not satisfy the prerequisites of any course except Chemistry 3. No student may take both Chemistry 1 and Chemistry 10 for credit. Chemistry majors may not include both Chemistry 1 and Chemistry 11 in the 120 hours required for graduation. 3 hours lecture per week.

3 General Chemistry Laboratory (2) (F&W)

Prerequisite: Chemistry 1 or 10 (either may be taken concurrently). Experiments to acquaint students with chemistry in the laboratory. These will include topics such as the role of chemistry in pollution detection, pollution control, industry, and forensic science, and with emphasis on the local area.

5 Problems in Chemistry (0) (F&W)

Prerequisite: None. Enrollment determined by score on the placement exam given in Chemistry 11. Application of mathematical principles to chemistry problems. Course meets one hour weekly. No credit toward a degree.

10 Chemistry in Society (3) (F&W)

Prerequisite: None. A survey of chemistry and its relevance to contemporary problems, including an introduction to important chemical principles as applied to air and water pollution, the chemistry of living systems, population, energy production, and other topics. Chemistry 10 may be applied toward fulfillment of the general education requirement in science but it does not satisfy the prerequisites of any course except Chemistry 3. No student may take both Chemistry 1 and Chemistry 10 for credit. Chemistry majors may not include both Chemistry 10 and Chemistry 11 in the 120 hours required for graduation.

11 Introductory Chemistry I (5) (F&W)

Prerequisite: Mathematics through college algebra and trigonometry (may be taken concurrently). Presents an introduction to the fundamental laws and theories of chemistry. Laboratory experiments are designed to demonstrate some aspects of qualitative and quantitative analysis and to develop skills in laboratory procedures. Chemistry majors may not include both Chemistry I and II, nor both Chemistry 10 and 11, in the 120 hours required for graduation. Three hours lecture and 1 hour discussion per week; three and one-half hours lab per week.

12 Introductory Chemistry II (5) (F&W)

Prerequisite: Chemistry 11 or advanced placement.

Chemistry 11. Three hours lecture and one hour discussion per week; three and one-half hours laboratory weekly.

13 Special Topics in Introductory Chemistry (Credit Arranged)

Prerequisite: Consent of instructor. A lecture or laboratory course to assist transfer students in meeting the requirements of Chemistry 11 and 12.

122 Quantitative Analysis (3) (F&W)

Prerequisite: Chemistry 12. Principles and practice of elementary quantitative analytical chemistry. Laboratory work will emphasize instrumental techniques, electrochemistry and some spectrophotometry. One one and one half hour lecture and four and one half hours laboratory weekly.

202 Introduction to Chemical Literature (1) (W)

Prerequisite: Chemistry 262 (may be taken concurrently). The course will familiarize the student with the literature of chemistry and its use. One hour lecture per week.

231 Physical Chemistry I (3) (F&W)

Prerequisite: Chemistry 122 and Mathematics 201 (may be taken concurrently), and Physics 111 (or equivalent). Principles of Physical chemistry including thermodynamics, theory of gases, phase equilibria, kinetics, crystal structure, spectroscopy and quantum mechanics. Three hours lecture per week.

232 Physical Chemistry II (3) (F&W)

Prerequisite: Chemistry 231. Continuation of Chemistry 231. Three hours lecture per week.

233 Laboratory in Physical Chemistry I (2) (F&W)

Prerequisite: Chemistry 231 (may be taken concurrently). Experiments designed to illustrate principles introduced in Chemistry 231. One hour lecture and four and one-half hours laboratory per week.

234 Laboratory in Physical Chemistry II (2) (F&W)

Prerequisite: Chemistry 232 (may be taken concurrently), Chemistry 233. Experiments designed to illustrate principles introduced in Chemistry 232. One hour lecture and four and one-half hours laboratory per week.

261 Structural Organic Chemistry (3) (F&W)

Prerequisite: Chemistry 12. An introduction to the structure, properties, synthesis and reactions of aliphatic and aromatic carbon compounds. Three hours lecture per week.

262 Organic Reactions (3) (F&W)

Prerequisite: Chemistry 261. A systematic study of organic reactions and their mechanisms; organic

Techniques of Organic Chemistry (2) (F&W)

Prerequisite: Chemistry 261 (may be taken concurrently). An introduction to laboratory techniques and procedures of synthetic organic chemistry. One hour lecture and four and one-half hours laboratory per week.

Synthetic and Analytical Methods of Organic Chemistry (2) (F&W)

Prerequisite: Chemistry 262 (may be taken concurrently), Chemistry 263. Advanced techniques; synthesis, separation and identification of organic compounds by classical and instrumental techniques. One hour lecture and four and one half hours laboratory per week.

Methods of Teaching Chemistry in Secondary Schools (3) (F&W)

Prerequisite: Education 163 (may be taken concurrently), Chemistry 263. Prerequisite: Education 163 (may be taken concurrently). A study of the content and sequence of the science courses in the secondary school curriculum, with emphasis on the selection and organization of materials and methods of instruction and evaluation. To be taken concurrently with student teaching.

Seminar (1) (F&W)

Prerequisite: Chemistry 202 (may be taken concurrently). Presentation of papers by students, faculty and invited speakers. All majors must enroll for this seminar during both semesters of their senior year.

Chemical Research (Credit arranged) (F&W)

Prerequisite: Consent of instructor. Independent laboratory and library study, in conjunction with a faculty member, of fundamental problems in chemistry.

History of Chemistry (3) (V)

Prerequisite: Chemistry 12 or consent of instructor. The development of chemistry, including early theories of matter, alchemy, iatrochemistry, the period of Lavoisier and selected topics from the 19th and 20th centuries. Three hours lecture per week.

Instrumental Analysis (3) (F&W)

Prerequisite: Chemistry 234. Modern instrumental methods, including nuclear magnetic resonance, electron spin resonance, mass spectrometry, spectrophotometry, X-ray diffraction and others. Two hours lecture and three and one-half hours laboratory per week.

Qualitative Organic Analysis (3) (V)

Prerequisite: Chemistry 264. Laboratory and instrumental methods for the systematic identification of organic compounds. One hour lecture and seven

333 Thermodynamics (3) (F)

Prerequisite: Chemistry 232. Selected advanced topics including solid-state, non-equilibrium and statistical thermodynamics. Three hours lecture per week.

336 Introduction to Quantum Chemistry (3) (W)

Prerequisite: Chemistry 231 or consent of instructor. A brief but quantitative introduction to the application of quantum mechanics to problems in chemistry; covering the uncertainty principle, operators, solution of Schrodinger's equation for simple systems, perturbation theory, variation method, interaction of radiation with matter, atomic and molecular structure, and theory of collisions. Three hours lecture per week.

341 Inorganic Chemistry I (3) (W)

Prerequisite: Chemistry 232 and 262 (may be taken concurrently). A systematic study of the structure and properties of the elements and their compounds, with emphasis on the correlation of chemical properties with theoretical concepts. Three hours lecture per week.

342 Inorganic Chemistry II (3) (F)

Prerequisite: Chemistry 341. Continuation of Chemistry 341 with emphasis on such topics as metals, non-aqueous solvents, chemical dynamics, organometallic chemistry, chemistry of the less common elements and certain frontier areas. Three hours lecture per week.

343 Inorganic Reactions (2) (F)

Prerequisites: Chemistry 341 (may be taken concurrently). The more sophisticated techniques of physical and analytical chemistry will be used to study inorganic compounds and their reactions. One hour lecture and four and one-half hours laboratory per week.

352 Nuclear Chemistry (3) (V)

Prerequisite: Chemistry 232. Properties of radioactive nuclei, nature of radioactivity, nuclear reactions and applications of nucleonics to chemistry. Three hours lecture per week.

361 Advanced Organic Chemistry (3) (W)

Prerequisite: Chemistry 262. Contemporary developments in the study of the structure of carbon compounds and the mechanism of their reactions. Selected topics such as natural products, heterocyclic compounds, stereochemistry, aromaticity, reaction intermediates and photochemistry will be included. Three hours lecture per week.

363 Advanced Organic Synthesis (2) (V)

Prerequisite: Chemistry 264. Advanced synthetic methods of organic chemistry. One hour lecture and

366 Physical Organic Chemistry (3) (F)

Prerequisite: Chemistry 262 and Chemistry 232 (may be taken concurrently). Advanced topics in the theory of organic chemistry, including conformational analysis, reaction kinetics and mechanisms, and transition state theory. Three hours lecture per week.

371 Biochemistry (3) (F)

Prerequisite: Chemistry 263. The isolation, chemical characterization and function of the structural and catalytic components of living cells and subcellular particles. Three hours lecture per week.

372 Advanced Biochemistry (3) (W)

Prerequisite: Chemistry 371. Selected advanced topics in the chemistry of life processes. Three hours lecture per week.

373 Biochemical Techniques (2) (F)

Prerequisite: Chemistry 371 (may be taken concurrently). Laboratory study of biochemical processes in cellular and subcellular systems with emphasis on the isolation and purification of proteins (enzymes) and the characterization of catalytic properties. One hour lecture and three and one-half hours laboratory per week.

374 Advanced Biochemistry Laboratory (2) (W)

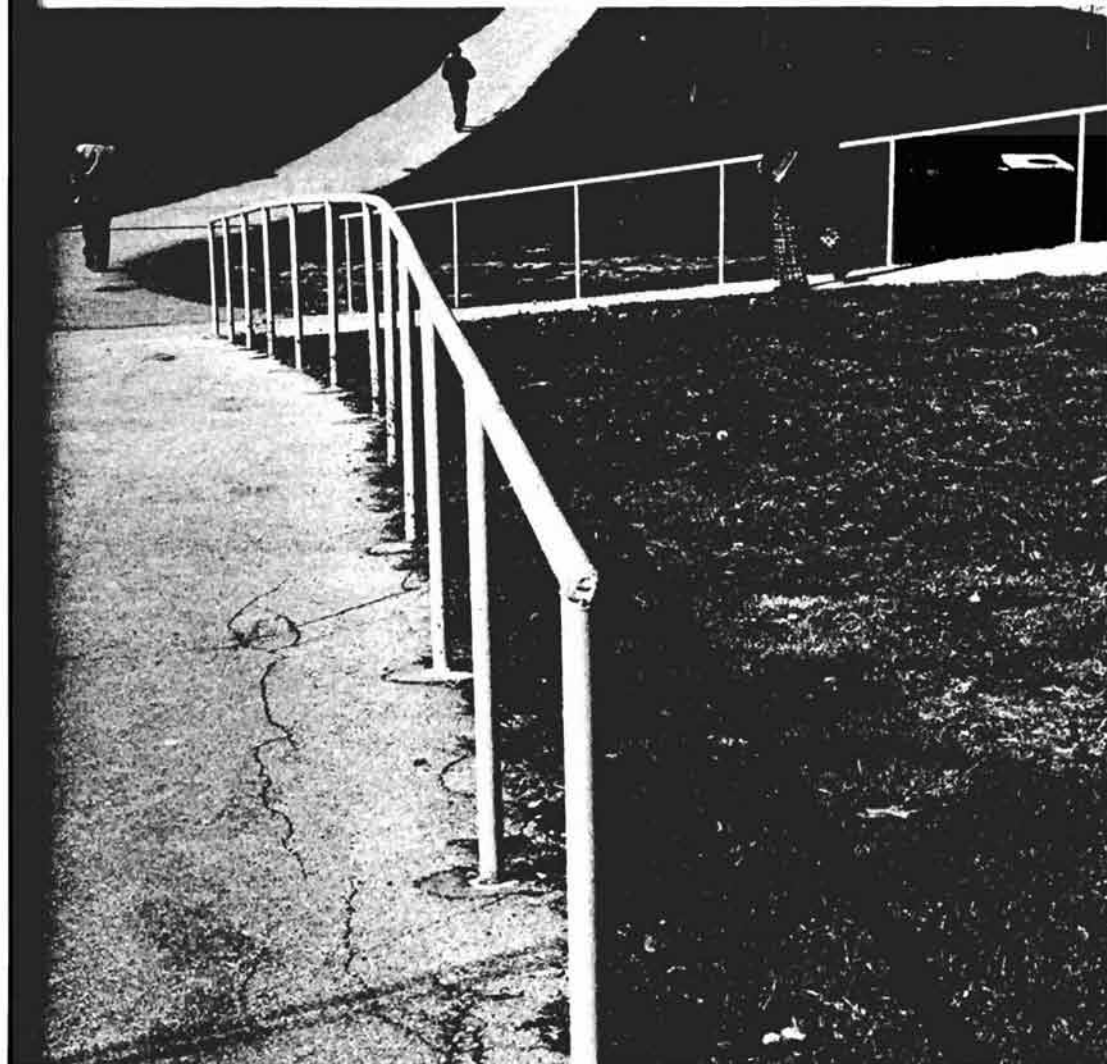
Prerequisite: Chemistry 372 and 373 (latter may be taken concurrently). Continuation of Chemistry 373. Laboratory to accompany Chemistry 372. One hour lecture and three and one-half hours laboratory per week.

380 The Teaching of Chemistry in Colleges & Universities (1) (V)

Prerequisite: Consent of instructor. A study of the history of the teaching of chemistry and the methods of instruction and evaluation used in the discipline.

381 Special Topics (1-5) (F&W)

Prerequisite: Consent of instructor. A reading and seminar course in selected advanced topics. Three hours lecture per week.



Economics

Program

The economics department offers courses in applied and theoretical economics for students in any program who wish to fulfill their social science general education requirements by obtaining an understanding of the background and causes of economic problems today and in the future, and to learn and evaluate alternative policy strategies to attack these questions. This background is particularly important for students whose career goals are business or government. Students in either prelaw or premedicine programs will also find this area of social science important background.

These economics courses are combined into several alternative degree programs. The bachelor of arts with a major in economics is perhaps the most flexible of the degrees offered. With this degree, the faculty hope to provide for those students with a career goal in general business or government a flexible and useful undergraduate education with more liberal arts breadth than might be obtained in special business degree work. However, the requirements are so established that if a student wishes to prepare for graduate professional training as an economist, he or she may do so by incorporating mathematics and other specialized courses.

The department also offers the bachelor of science with a major in economics. This program places more emphasis on the statistical and quantitative aspects of economics in order to prepare a student for employment upon graduation in a wide variety of business research and forecasting roles. However, the student is cautioned that these opportunities may be limited with only an undergraduate preparation.

and planning, or junior college teaching, the department offers the master of arts degree in economics. Work toward this degree may also be a start toward a doctoral degree which is essential if the student has college teaching as a career goal. The master's degree is an entree to applied economic work and really should not be considered sufficient training for anyone desiring to become a professional economist either at the college teaching or government level.

For those students interested in high school teaching of social studies, the School of Education offers a bachelor of science degree with an emphasis in social studies (see School of Education for details). The Economics Department offers courses in economics for the student wishing to be able to interpret the economic aspects of social questions to high school students.

The faculty in economics considers research an integral part of good teaching. To undertake research, however, requires useful feedback from students and colleagues. Therefore, the department has decided not to try to staff every potential field in economics, but to concentrate in two particular areas to increase faculty interaction. Since the university is located in a major urban complex, one of the fields of special interest to the faculty is urban affairs. Members of the staff have undertaken, and are undertaking, research in housing, transportation, employment, taxation, and zoning. Nearly half the staff have a research interest in some aspect of urban economics. Furthermore, several staff members hold joint appointments in the Center for Community and Metropolitan Studies. The center association enables economists to obtain ideas and feedback from faculty and

A background in economics is particularly important for careers in business or government.

The other area in which the staff has a major research interest is international economics and comparative economic systems. Research on Latin America, the Soviet Union, and international trade flows are all being undertaken by staff at this time. Furthermore, two members of the faculty are associated with the Center for International Studies. This enables economists to obtain ideas and feedback on international issues with faculty from the other social science disciplines. The thrust of this research, as can be seen from the above description, is an emphasis in understanding policy. The department has an emphasis in applied, rather than theoretical, research which strengthens undergraduate instruction and allows undergraduates to help in that research.

Geography

The department also offers courses in geography. There are two purposes in this academic work. The introductory course is offered for students needing a distribution requirement in geography for teaching certification. Upper division work in urban and human geography is offered to complement the course work offered by economics, sociology, and political science students with an interest in urban affairs.

General Education Requirements

Each candidate for either the bachelor of arts in economics or the bachelor of science in economics must satisfy the general education requirements of the university listed on page 32, and the general education requirements of the College of Arts and Sciences listed on page 44. The candidate for the B.S. degree, however, is not required to fulfill the foreign language requirement of the college. Courses in economics may be used to meet the university's social science area requirements. The college's foreign language requirement may be met in any language; the non-Euro-American requirement may be met by taking any non-Euro-American course.

Students not majoring in economics may take any economics course on a pass-fail basis. Candidates for the A.B. or the B.S. degree may take any course outside the major field as well as Economics 50, Principles of Macroeconomics, and Economics 51, Principles of Microeconomics, on a pass-fail basis.

Research in urban and international economics is an integral part of the economics program.

Members of the economics staff have undertaken, and are undertaking, research in housing, transportation, employment, taxation, and zoning.

Degree Programs

Bachelor of Arts in Economics

Candidates for the A.B. degree in economics are required to take at least 30 hours in economics. No more than 45 hours in economics may be accepted toward the degree. The department encourages students to complete the minimum of 30 hours in economics and then develop as much breadth as possible in related areas.

The department requires the candidate to take four courses which are considered essential to an understanding of economic issues and problems. These are as follows:

- 50 Principles of Macroeconomics
- 51 Principles of Microeconomics
- 250 Intermediate Macroeconomic Theory
- 251 Intermediate Microeconomic Theory

No matter what aspect of economics the student finds most interesting, he or she will always be using the tools of these four courses.

In addition to requiring these four core courses, the department requires each major to learn quantitative skills which are used in conjunction with the theory. Since much of the data used by economists is generated through business records, it is important for the student of economics to understand accounting. Therefore, each major must take Business 140, Fundamentals of Financial Accounting. Cost of living indexes, consumption information, prices, and income are available to the student of economics in large collections of data. Therefore, the department also requires each student to acquire some ability in statistical analysis. To obtain this skill, the student must complete either Mathematics 31, Elementary Statistics, or Business 131, Elementary Statistics.

Business 131 requires the student to take Mathematics 102, Finite Mathematics, as a

course should be completed before the end of the sophomore year so the skills may be applied in upper division economics courses.

Since many of the theories in economics make use of calculus, it is recommended that the student take Mathematics 80, Analytic Geometry and Calculus I. However, this is not required of the average student in the economics program since calculus is not used in teaching the undergraduate courses.

The bachelor of arts degree is meant to be a very flexible program. The minimum 30 hour economics requirement is designed to allow the student to add electives in related fields, depending upon career goals. A student interested in general business or investment might select courses in business administration, especially finance. Those students interested in some aspect of public administration should choose courses from such related fields as history, philosophy, and political science.

A student interested in training to become a professional economist should review the requirements for entrance in the graduate schools that he or she would like to attend. The choice of the A.B. degree or the B.S. degree is not relevant except if the graduate school being considered requires a foreign language. It would then be necessary to take the A.B. route. Almost all graduate schools, however, would want students to take the following mathematics courses:

- 80 Analytic Geometry and Calculus I
- 175 Analytic Geometry and Calculus II
- 201 Analytic Geometry and Calculus III
- 245 Matrix Algebra
- 320 Mathematical Statistics

Much of the course work in graduate school economics requires some facility at calculus



student considering graduate study to acquire these skills at the undergraduate level. Any student wanting to become a professional economist should not concentrate heavily in economics as an undergraduate.

Bachelor of Science in Economics

This degree is intended for those students more interested in quantitative aspects of economics and who have career goals in some aspect of business research or statistical analysis. Candidates for the B.S. degree in economics, therefore, are required to take at least 36, but no more than 45, hours in economics. The candidate must take the four core courses:

- 50 Principles of Macroeconomics
- 51 Principles of Microeconomics
- 250 Intermediate Macroeconomic Theory
- 251 Intermediate Microeconomic Theory

In addition to these core courses, the candidate for the B.S. degree must also complete the following two courses which will strengthen his or her quantitative and statistical skills:

- 101 Mathematical Economics
- 365 Economic Statistics and Econometrics

For the same reason that A.B. students must develop skills in accounting and statistics, candidates for the B.S. degree are required to complete Business 140, Fundamentals of Financial Accounting, and either Mathematics 31, Elementary Statistics, or Business 131, Elementary Statistics. These two related area courses should be completed before the end of the sophomore year in order that the skills learned may be used in the upper division courses.

To develop facility in mathematics and

B.S. degree are also required to take the following quantitative courses:

1 Either Mathematics 80, Analytic Geometry and Calculus I, or Mathematics 101, Survey Calculus (It is preferable for the student to take Mathematics 80 since it leads into later courses in mathematical methods).

2 Either Business 104, Fundamentals of Digital Computer Programming, or Mathematics 122, Computers and Programming.

3 Two of the following courses:
Mathematics
102 Finite Mathematics

Economics
304 Survey Research Practicum
366 Econometrics

Business
231 Intermediate Statistics
375 Operations Research

or any mathematics course numbered 175 or higher (note that to take these mathematics courses, the student must take Mathematics 80).

The department suggestions for electives for the B.S. degree are the same as for those in the A.B. program.

Geography Courses

Courses in geography do not carry credit toward the major for the A.B. or B.S. in economics. They may, however, be used to satisfy the university's social science area requirement. Each of these courses also satisfies the state certification requirements for elementary school teachers and for secondary school social studies teachers. Geography courses may be taken on a pass-fail basis.



Economics Faculty

Hugh O. Nourse, Ph.D.
University of Chicago chairman, professor

Robert Loring Allen, Ph.D.
Harvard University professor

Joseph P. McKenna, Ph.D.
Harvard University professor

Elizabeth M. Clayton, Ph.D.
University of Washington associate professor

Thomas R. Ireland, Ph.D.
University of Virginia associate professor

William E. Mitchell, Ph.D.
Duke University associate professor

Donald Phares, Ph.D.
Syracuse University associate professor

Herbert D. Werner, Ph.D.
University of California, Berkeley associate professor

John Clark Archer, Ph.D.
University of Iowa assistant professor

Peter J. Grandstaff, Ph.D.
Duke University assistant professor

Sharon Levin, Ph.D.
University of Michigan assistant professor

Emilio Pagoulatos, Ph.D.
Iowa State University assistant professor

Robert L. Sorensen, Ph.D.
Virginia Polytechnic Institute assistant professor

James F. Veatch, Ph.D.
University of Illinois assistant professor

Katherine Walker, Ph.D.
University of California - Davis assistant professor

Economics Description of Courses

Prerequisites may be waived by consent of department

40 Introduction to the American Economy (3) (V)
No credit for students majoring in Economics or Business. Introduction to economic analysis and problems through an examination of the development and operations of the American economy; study of its evolution, institutions and principal problems.

50 Principles of Macroeconomics (3) (F&W)
Introduction to the subject of economics with emphasis on the operation of the national economy, money and banking, and international economic relations.

51 Principles of Microeconomics (3) (F&W)
Introduction to the subject of economics with emphasis on the theory of the firm, price determination and resource allocation.

90 Freshman Seminar (3) (V)
Prerequisite: Freshman standing and consent of instructor. Topics to be announced. Weekly seminars supplemented by individual conferences. Limited to 12 students.

99 The City (3) (F&W)
(Same as Administration of Justice 99, History 99, Political Science 99, Psychology 99 and Sociology 99) Prerequisite: 12 hours of college credit. An interdisciplinary course. Consideration of economic factors, urban institutions, historical developments in urbanization, problems of the inner city, suburbia and the metropolitan area, ethnic groups, stratification and psychological implications of urban living. Does not count toward a major in economics.

160 The Measurement of Economic Activity (3) (V)
Prerequisite: Mathematics 40 or Mathematics 15 or one and one-half high school units in algebra. The kinds and purposes of economic measurements, sources of data, and techniques of arrangement. Emphasis on enterprise and social accounting, index numbers, input-output, flow-of-funds and cost-benefit studies.

200 Macroeconomics for the School Curriculum (3) (V)
Prerequisite: Upperclass or graduate standing in School of Education. Analysis of forces affecting the national economy, with emphasis on income determination, employment, money and banking, and international trade and finance. Special reference to

Microeconomics for the School Curriculum (V)
Prerequisite: Upperclass or graduate standing in School of Education. Analysis of market forces, with emphasis on business firms, households, and multi-factor markets, price determination and resource allocation. Special reference to topics included in elementary and secondary school social science curricula.

Public Finance: Federal (3) (F)
Prerequisite: Economics 40 or 50. The nature and scope of public finance. Analysis of expenditure, revenue and financial administration of the Federal Government, with emphasis on current problems.

Social Choice in Political-Economic Systems (V)
Prerequisite: Two courses in Economics, Political Science or Sociology. A study of the mechanisms of social choice from the standpoint of individual and social party maximization of personal objectives. The area draws on work done by sociologists, political scientists and economists.

Money and Banking (3) (F&W)
Prerequisite: Economics 40, 50 or 51. Factors influencing bank reserves and the money supply. Policy of the Federal Reserve System and the monetary theory to control these factors. Introduction to monetary theory: integration of monetary phenomena with national income theory. Analysis of current monetary issues.

International Economic Analysis (3) (W)
Prerequisite: Economics 40, 50 or 51. Elementary trade payments analysis; balance of payments, international economic problems; concentration on fundamentals of analysis and problems.

Comparative Economic Systems (3) (W)
Prerequisite: Economics 40, 50 or 51. Comparative study of economic organization, growth and welfare in different national economies such as the United States, the Soviet Union and France.

The Soviet Economy (3) (V)
Prerequisite: Economics 40, 50 or 51. Intensive analysis of the Soviet economy as a case study in central planning. Growth and development of the Soviet economy in historical perspective, and prospects for future evolution and structural change.

Economic Development (3) (V)
Prerequisite: Economics 40, 50 or 51. Survey of economic growth as applied to underdeveloped areas. Analysis of development policies with

241 American Economic Development (3) (V)
Prerequisite: Economics 40 or 50 or consent of instructor. Economic analysis and interpretation of the evolution of the principal developments, institutions and structural characteristics of the economic system of the United States.

242 European Economic Development (3) (V)
Prerequisite: Economics 40 or 50 or consent of instructor. Economic analysis and interpretation of the evolution of the principal developments, institutions and structural characteristics of the economic systems of Europe.

243 Latin American Economic Development (3) (V)
Prerequisite: Economics 40 or 50 or consent of instructor. Economic analysis and interpretation of the evolution of the principal developments, institutions and structural characteristics of the economic systems of Latin America.

250 Intermediate Economic Theory: Macroeconomics (3) (F)
Prerequisite: Economics 50 and Economics 51. Study of national income, expenditure and the forces determining the level of economic activity. Special emphasis on the theory of income determination and its application to public policy.

251 Intermediate Economic Theory: Microeconomics (3) (W)
Prerequisite: Economics 50 and Economics 51. Analysis of prices in terms of equilibrium of the business firm and consumer demand in markets of varying degrees of competition.

253 Managerial Economics (3) (V)
(Same as Business Administration 253) Prerequisite: Economics 51 and either Mathematics 80 or Mathematics 101. Application of microeconomic theory to the decision-making process in the business firm. Discussion of cost behavior, price and output determination under various competitive conditions, as well as factors affecting wages, interest and profits.

260 Labor Economics (3) (F)
Prerequisite: Economics 40, 50 or 51. Forms of labor organization, state and federal labor legislation and policies of labor unions. Emphasis on an application of economic theory to the relations of labor and business.

270 Urban and Regional Economics (3) (F)
Prerequisite: Economics 40, 50 or 51. A survey of factors affecting the location of economic activity, industrial diversity, determinants of urban growth, the role of urban public economy, and the management

301 The Urban Environment and Planning (3) (V)

Prerequisite: Junior standing or 12 hours in social science. A survey of the development of urban America and the associated crises and of the origins and early practice of planning, role of the profession in modern society. Federal and State programs that affect urban development through the planning profession, and current changes in the practice of planning.

302 Systems Analysis for Urban Planning Problems (3) (F)

Prerequisite: Junior standing and Economics 50 and 51 or consent of instructor. Applications of systems analysis to the planning program. Emphasis upon Planning Programming and Budgeting (PPB), costing, cost-benefit, cost effectiveness studies and information systems for urban planning and decision-making; covers review and evaluation techniques.

317 Public Finance: State and Local (3) (W)

Prerequisite: Economics 50 and Economics 51. A study of expenditure, taxation and financial administration of state and local governments, with emphasis on problems of current interest. Special attention given to research methods, as well as financial relations between various levels of government.

321 Money (3) (W)

Prerequisite: Economics 220. Demand for money; determination of interest rates, prices and income; decision-making under conditions of uncertainty; term structure and interest rates. Other topics of mutual interest.

331 International Economic Analysis (3) (F)

Prerequisite: Economics 50 and 51. Theory of international trade and payments, foreign exchange and balance of payments analysis; integration of commercial policy, international monetary and liquidity analysis.

345 Population Economics (3) (V)

Prerequisite: Economics 40 or 50. A systematic study of the forces influencing the attributes, character, distribution and growth of population; emphasis on economic considerations.

350 Special Readings (Credit arranged) (F&W)

Prerequisite: Consent of instructor. Unscheduled, independently directed readings on topics mutually acceptable to student and instructor.

351 Mathematical Economics (3) (F)

Prerequisite: Economics 251 and Mathematics 101. Introduction to the development and use of

game theory. Selected topics in mathematical economics.

355 Business and Government (3) (F)

(Same as Political Science 345) Prerequisite: Economics 51. Relations between business firms and government at all levels. Questions of regulation, public ownership, guidelines and competition considered.

356 Industrial Organization (3) (W)

Prerequisite: Economics 51. Analysis of the economic factors influencing industrial structure and the conduct and performance associated with various market structures.

364 Manpower Policies (3) (W)

Prerequisite: Economics 51. Analysis of the allocation of human resources with emphasis on the economic theory of labor markets in both the short and the long run. Discussion of the operation of the labor market in specific occupations.

365 Economic Statistics and Econometrics (3) (W)

Prerequisite: Economics 50 and 51 and either Mathematics 31 or Business 131. Mathematics 80 or 101 recommended. Application of statistical techniques to economic research problems.

366 Econometrics (3) (F)

Prerequisite: Economics 365. Continuation of Economics 365.

368 Analysis of Business Conditions (3)

(Same as Business 368) Prerequisite: Economics 220. Discussion of factors affecting economic conditions, short-term fluctuations in business activity and plans and policies for economic stabilization. Emphasis on problems and techniques of forecasting aggregate and industry demand.

371 Issues in Urban Economics (3) (V)

Prerequisite: Economics 50. Problems of public policy in the city as they relate to education, housing, transportation, recreation and their financing. Recent government policies concerning the city and its surrounding areas will be emphasized.

380 History of Economic Thought (3) (F)

Prerequisite: Economics 50 and Economics 51. The evolution of economic thought from the ancients through post-Keynesian theory.

Geography**101 Introduction to Geography (3) (F)**

Introductory survey of the physical, social, cultural and economic attributes of place, and the interrelationships among these factors which define

World Regions (3) (V)

Prerequisite: None (Geography 101 is recommended). Survey of the major regions of the world. Designed to give the student an awareness of the character of each of these major regions through the study of the relationships of the various attributes of place.

Urban Geography (3) (V)

Prerequisite: Sophomore standing. An in-depth examination of urban growth, the location and basis of cities, and the internal spatial structure of cities. The main topics of consideration. In addition to the study of temporary urban problems including zoning, urban sprawl, blight, the journey to work and shop, pollution, etc. are discussed with a spatial emphasis. Consideration is confined almost exclusively to North American cities.

Social Geography (3) (V)

Prerequisite: Sophomore standing. Topics presented within a spatial (geographic) framework include the study of innovations, population (distribution, problems, and solutions), settlement patterns, migration, poverty, and urban-social problems (e.g., slums and residential choice).

English

Program

The Department of English offers an undergraduate degree program in English and course work in speech communication. For information on the master of arts in English, see the *Graduate Bulletin*.

An undergraduate English major has three degree options available: bachelor of arts, bachelor of arts with certification for secondary teaching, and bachelor of science in secondary education with a major in English. Electing either of the last two options will qualify the English major for a career in the teaching of literature and the English language at the secondary level.

Conscious of its responsibilities in the training of prospective secondary school teachers, the English department is no less sensitive to the needs of its other majors who have chosen to pursue the A.B. in English preparatory to entering graduate school in English, law, or other professional schools, or a career in publishing, journalism, commercial writing, or the many areas of business in which literary and linguistic knowledge and skills are assets for professional achievement. Students seeking specific information about the variety of career opportunities for English majors may obtain from the department the publication *English: The Pre-Professional Major*, prepared by the Modern Language Association of America.

The faculty of the English department approach the study and teaching of their intellectual discipline from a variety of academic viewpoints, thus insuring a diverse exposure for the major to the artistic, ethical, and factual issues raised in any literature or language course.

General Education Requirements

Each English major must satisfy the general education requirements of the university listed on page 32, and the general education requirements of the school or college from which he or she expects to receive a degree. Courses in English, except English 9, 10, 65, 115, 160, and 262, may be used to meet the university's humanities area requirement. The college's foreign language requirement may be met in any language. The non-Euro-American area requirement may be met by any non-Euro-American course. Any English course except English 9, 10, 65, 160, and 262 may be taken on pass-fail. The university communicative skills requirement is a prerequisite for all English courses numbered 130 or above.

Degree Requirements

Bachelor of Arts in English

Each English major must complete a minimum of 36 hours but no more than 45 hours in English exclusive of English 9, 10, and 65. These courses must include:

- Any two courses from the sequence:
- 31 English Literature I
 - 32 English Literature II
 - 33 Introduction to Poetry
 - 34 Introduction to Drama
 - 35 Introduction to Fiction

English 160 Advanced Expository Writing. For English majors this course is a prerequisite or corequisite for 300-level courses in English.

One of the following American literature courses:

- 71 American Literature I
- 72 American Literature II
- 70 Afro-American Literature
- 73 The American Renaissance
- 74 American Realism and Naturalism
- 75 American Fiction to World War I
- 76 Modern American Fiction

Four courses, one each from any four of the following areas in English literature:

- Medieval
- 24 Chaucer
 - 25 Medieval English Literature
 - 26 The Medieval Drama

- 16th Century
- 32 Tudor Poetry
 - 37 Shakespeare: Tragedies and Romances
 - 38 Shakespeare: Comedies and Histories
 - 39 Tudor and Stuart Drama*
 - 41 English Renaissance Prose*

- 17th Century
- 39 Tudor and Stuart Drama*

The variety of academic viewpoints of the faculty provide a diverse exposure to the artistic, ethical, and factual issues raised in any literature and language course.

- 342 Early Seventeenth-Century Poetry
- 345 Milton
- 346 Restoration and Eighteenth Century Drama**

- 18th Century
- 346 Restoration and Eighteenth Century Drama**
 - 352 Age of Dryden and Pope
 - 353 Age of Johnson
 - 364 The Eighteenth-Century English Novel

- 19th Century
- 365 The Nineteenth-Century Novel
 - 368 Early Romantic Poetry and Prose
 - 369 Later Romantic Poetry and Prose
 - 371 Prose and Poetry of the Victorian Period
 - 372 The Later Nineteenth Century

- 20th Century
- 383 Modern British Fiction
 - 384 Modern Poetry
 - 385 Modern Drama
 - 386 Poetry Since World War II

*Will satisfy the requirement in either 16th or 17th century, but not both.

**Will satisfy the requirement in either 17th or 18th century, but not both.

No more than six hours of English taken on a pass-fail basis may be counted toward the 36 hour minimum requirement for a major in English. A student majoring in English must complete a minimum of 18 graded (i.e., not pass-fail) hours in English courses at the 200 level or above with an average of 2.0 or better in these courses. Transfer students majoring in English must complete at UMSL a minimum of 12 graded hours in English courses at the 200 level or above with an average of 2.0 or better in these courses.

An English major's work in courses at the 100 level will provide a background in literary history and forms and the means for

Requirements for English majors in upper-level courses are designed to provide contact with important literature from a number of historical periods.



orally. The department recommends that the student complete the requirement in the 131-135 sequence by the end of the sophomore year.

Advanced courses at the 200 and 300 level offer the possibility for some intensive work in specific portions of the general areas defined by the 100-level courses.

Requirements for the major in these upper-level courses are designed to provide for contact with important literature from a number of historical periods. The question of which alternative upper-level courses most satisfactorily fulfill an individual major's needs and interests can usually best be resolved by consultation with a faculty adviser in the English department.

Bachelor of Arts in English with Certification for Secondary Teaching

In addition to the requirements for the bachelor of arts in English, a student must complete the following to qualify for secondary certification:

1 An additional course in American literature from the group listed under 3, above.

2 English 262, The Curriculum and Methods of Teaching English, (taken concurrently with student teaching).

3 A minimum of 12 hours in composition, rhetoric, grammar, and linguistics. English 10, Composition; English 65, Honors Exposition; and English 160, Advanced Expository Writing, may count toward this total. These 12 hours must include a course in advanced composition, English 160. Of these 12 hours, six hours must be taken from the following courses in the English language:

220 Development of the English Language
221 Introduction to Modern Linguistics
322 Modern English Grammar

Courses in professional education listed as requirements under the Department of Administration, Philosophy, and Secondary Education are also required for secondary certification.

Bachelor of Science in Secondary Education with a major in English

The required courses in English and professional education are the same as those indicated for the A.B. with certification for secondary teaching. However, the student fulfills the general education requirements of the School of Education for the B.S. degree rather than those of the College of Arts and Sciences for the A.B. degree.

Speech Communication

The Department of English offers course work in speech communication. These courses provide opportunities for study in theatre, public address, small group, interpersonal, and mass communication. The course offerings create a framework for viewing communication from the perspectives of theory, performance, and research, and they examine communication as a process influenced by elements and characteristics of the situation, the channel or medium, the individual participants, and the message.

English Faculty

Gene Williamson, Ph.D.
Wyn Mawr College chairman, associate professor

Bernard Cohen, Ph.D.
Indiana University professor

Charles T. Dougherty, Ph.D.
University of Toronto professor

William C. Hamlin, Ph.D.
University of Missouri-Columbia professor

Walter M. Allen, B.J.
Director, Urban Journalism Center, associate professor
Journalism

Marjorie A. Dalbey, Ph.D.
University of Illinois associate professor

Royce L. Liles, Ph.D.
Stanford University associate professor

Eugene B. Murray, Ph.D.
Columbia University associate professor

John T. Onuska, Jr., Ph.D.
Harvard University associate professor

Robert Wolfe, Ph.D.
University of Wisconsin associate professor

David Allen, M.A.
Assistant professor

Mary W. Burger, Ph.D.
Washington University assistant professor

David Carkeet, Ph.D.
Indiana University assistant professor

Richard Cook, Ph.D.
University of Michigan assistant professor

Jerome Grollman, M.H.L.
Visiting assistant professor

Ferry Heller, Ph.D.
University of Chicago visiting assistant professor

Wurt H. Hartog, Ph.D.
University of Illinois assistant professor

Charles Larson, Ph.D.
Indiana University assistant professor

Winslow S. Rogers, Ph.D.
Harvard University assistant professor

James E. Tierney, Ph.D.
New York University assistant professor

George von Glahn, Ph.D.
University of North Carolina assistant professor

Dwight Williams, Ph.D.
Ohio State University assistant professor of speech communication

Denny Bettisworth, M.A.
Director of theatre, instructor of speech communication

Mary Brown, M.A.
Instructor

Adam Casmier, M.A.
Visiting instructor

Michael Castro, M.A.
Instructor

Ellie Chapman, M.A.
Instructor

Suzanne Cooper, M.A.
Visiting instructor

Don Crinklaw, M.A.
Instructor

Susan Cryer, M.A.
Visiting instructor of speech communication

Janet Cuenca, M.A.
Instructor

Sharon Dashiell, M.A.
Instructor of speech communication

Dorothy Doyle, M.A.
Instructor

Larry Duncan, M.A.
Instructor

Gene Graham, M.A.
Instructor

Sally Jackoway, M.A.
Instructor

Diane Kurtz, M.A.
Instructor

William Lyons, M.A.
Instructor of speech communication

English Description of Courses

Jane Parks, M.A.
instructor

Judith Pearson, M.A.
instructor

LaVerne Peters, M.A.
instructor of speech communication

Juliet Popkin, M.A.
visiting instructor

Barbara Relyea, M.A.
instructor

Jacqueline Resnikoff, M.A.
instructor

Josephine M. Rhodes, C.Phil.
instructor

Kathleen Sala, M.A.
instructor of speech communication

Howard Schwartz, M.A.
instructor

Lorraine Sheehan, M.A.
instructor

Jeanne Sherrill, M.A.
instructor

Donald Shields, M.A.
director of forensics, instructor of speech communication

Kim Sindel, M.A.
instructor

Marion Steefel, M.A.
instructor

Martha Walkup, M.A.
visiting instructor of speech communication

The university Communicative Skills requirement is a general prerequisite for all English courses numbered 130 or above. This, and other specific prerequisites, may be waived by consent of the department.

Composition

09 English Composition (0) (F&W)

A review of elementary principles of writing expository prose. Special attention is given to sentence clarity, organization, the clear and orderly development of ideas, and good diction. The course does not fulfill the University requirement in communicative skills. No credit toward any degree. The course meets three hours a week.

10 Composition (3) (F&W)

Theory and practice of writing expository prose. This course fulfills the general education requirement in basic communicative skills. Does not count toward the major in English.

50 Short Story Writing (3) (F&W)

Prerequisite: English 10 or equivalent. Theory and practice of writing the short story.

51 Poetry Writing (3) (V)

Theory and practice of writing poetry.

65 Honors Exposition (3) (V)

Prerequisite: Honors qualification on placement examination or essay proficiency test. May not be taken in addition to English 10. Practice in expository writing, with readings in literature and related fields on topics to be announced each semester. Does not count toward the major in English.

115 Commercial Writing (3) (F&W)

Prerequisite: English 10 or equivalent. Emphasis upon news writing, newspaper feature writing, magazine article writing and book reviewing.

130 Writing Literary Criticism (3) (W)

Intensive training in the writing of literary criticism, with some attention to bibliography and to methods of research in literature. Recommended for all English majors.

160 Advanced Expository Writing (3) (F&W)

Prerequisite: English 10 or equivalent. Emphasis upon developing the critical and analytical capabilities of the writer. Course offers an introduction to research methods. For English majors this course is a prerequisite or corequisite to 300-level English courses.

Language

220 Development of the English Language (3) (F&W)

Primary emphasis on the development of Modern English from earlier periods of the language.

21 Introduction to Modern Linguistics (3) (F&W)

A survey of the areas of modern linguistics with emphasis on the English language: introductory transformational syntax and phonology, regional and social dialects, usage, lexicography, semantics, transformations in the language of children, the development of language study, and applications to the language arts programs in the schools.

22 Modern English Grammar (3) (F&W)

A detailed study of Modern English sentence structure in terms of current theories of linguistic description, with special emphasis on transformational grammar.

Literature

12 Literary Types (3) (F&W)

The student is introduced to the various literary types, including poetry, drama, fiction, and the essay.

101 Confusion and Chaos in the American Experience (3) (V)

(Same as History 101 and Interdisciplinary 101) Selected topics in American history and literature from the colonial period to the present.

102 Ethnic Cultures in America: Their History and Literature (3) (V)

(Same as History 102 and Interdisciplinary 102) The course traces the history of the settlement of European, Jewish, German, Italian, Irish, and Negro groups in America. It will emphasize the problems of assimilation as they are reflected for each group in appropriate literary forms.

120 Classical Literature in Translation (3) (F&W)

A study of classical literature from Homer through Quintilian, including such major figures as Sophocles, Plato, Aristotle, Cicero and Vergil.

125 Literature of the Old Testament (3) (F&W)

Prerequisite: Sophomore standing or consent of instructor. A comprehensive understanding of the Old Testament, its literary background and significance for Western civilization.

126 Continental Medieval Masterpieces in Translation (3) (V)

A survey of masterworks of the early and later Middle Ages, to include the *Divine Comedy*, *Nibelungenlied*, *Song of Roland*, *El Mio Cid*, selections from Chretien de Troyes, Boccaccio's *Decameron*, and Machiavelli's *The Prince*.

since the Second World War.

129 Topics in Literature and Society (3) (V)

Issues and ideas relating to literature and its cultural context. Topics to be announced each semester by the Department. Since the topics of English 129 may change each semester, the course may be repeated for credit if the topic is substantially different.

131 English Literature I (3) (F&W)

The development of English literature from the Middle Ages through the eighteenth century. Reading and analysis of representative works of selected major writers.

132 English Literature II (3) (F&W)

The development of English literature during the nineteenth and twentieth centuries. Reading and analysis of representative works of selected major writers.

133 Introduction to Poetry (3) (F&W)

A close study of poems, with special emphasis on the varieties of poetic form, and the means of interpretation and evaluation. The works studied will be primarily English and American, and from at least three different centuries.

134 Introduction to Drama (3) (F&W)

A close study of major dramatic works in various modes, to introduce the student to the forms and techniques of dramatic literature. The works studied will be primarily English and American, and from at least three different centuries.

135 Introduction to Fiction (3) (F&W)

A close study of major prose fiction, with particular attention to the varieties of fictional forms and techniques. The works studied will be primarily English and American, and from at least three different centuries.

171 American Literature I (3) (F&W)

Representative selections from American authors from the middle of the seventeenth century to the middle of the nineteenth century.

172 American Literature II (3) (F&W)

Representative selections from American authors from the middle of the nineteenth century to the present.

210 Themes and Forms in Literature (3) (V)

The study of particular literary ideas, modes, and genres, and their significance. Topics announced in advance by the department. Since the topics of English 210 may change each semester, the course

270 Afro-American Literature (3) (F&W)

A survey of prose, poetry, and drama by Black Americans from the period of enslavement, through the Negro Renaissance to the present.

315 Literary Criticism (3) (V)

Historical survey of the principles of literary criticism from Plato to the present.

324 Chaucer (3) (F)

The course concentrates on the poetry of Geoffrey Chaucer, including the *Canterbury Tales*, early poetic works, and the *Troilus and Cressida*. All readings are in the original Middle English.

325 Medieval English Literature (3) (W)

A survey of Old and Middle English literature from *Beowulf* to Malory's *Morte D'Arthur*, exclusive of Chaucer. All works are read in modern English translations.

326 The Medieval Drama (3) (V)

The development of medieval drama from its liturgical origins to the English mystery cycles and morality plays, ending with the early pre-Elizabethan interludes.

332 Tudor Poetry (3) (W)

Spenser, Sidney, the sonneteers, and other non-dramatic poets of the sixteenth century. The development of poetic theory.

337 Shakespeare: Tragedies and Romances (3) (F&W)

The development of Shakespeare's concept of tragedy and tragicomedy from *Titus Andronicus* to *The Tempest*. The plays will be related to the social and literary milieu of the period.

338 Shakespeare: Comedies and Histories (3) (F&W)

Shakespeare's early work for the theatre with some attention to the sonnets and longer poems. A historical background for a study of all the plays, including discussions of Elizabethan society, the world of the stage and Shakespeare's biography.

339 Tudor and Stuart Drama (3) (Alt. F)

A survey of the dramatic writing of the period from the interludes of John Heywood to the closing of the theatres in 1642, with particular attention to the plays of Marlowe, Jonson, Webster, and Ford. Through Shakespeare will not be studied in this course, connections between his works and those of his contemporaries will be discussed.

341 English Renaissance Prose (3) (V)

The full variety of sixteenth and seventeenth-century

thematic and stylistic developments.

342 Early Seventeenth-Century Poetry (3) (F)

Non-dramatic poetry from the accession of James I to the Restoration, exclusive of Milton.

345 Milton (3) (W)

All the minor poems and the three longer poems with some attention to the major prose. Milton and his relation to the politics, theology and literature of the seventeenth century.

346 Restoration and Eighteenth Century Drama (3) (W)

The principal tragedies and comedies from Dryden to Sheridan, including the plays of Congreve, Farquhar, Rowe, Gay, Fielding, Goldsmith, among others.

352 Age of Dryden and Pope (3) (F)

The beginning of English neo-classic literature in the Restoration and its development through the first half of the eighteenth century, focusing on Dryden, Swift and Pope.

353 Age of Johnson (3) (W)

The breakdown of the neo-classic spirit and the introduction of the "new" poetry and novel. Consideration of Fielding, Johnson, Thompson, Young, Goldsmith, Sheridan and others.

364 The Eighteenth-Century English Novel (3) (F)

The origins and early development of the English novel, from Defoe to Jane Austen.

365 The Nineteenth-Century English Novel (3) (W)

The later development of the English novel, from Scott to Conrad.

368 Early Romantic Poetry and Prose (3) (F)

The English Romantic Movement with special emphasis on the early writers—Blake, Wordsworth and Coleridge. Additional readings in Lamb, Hazlitt, Scott and selected minor writers.

369 Later Romantic Poetry and Prose (3) (W)

The English Romantic Movement with special emphasis on the later writers—Byron, Shelley and Keats. Additional readings in DeQuincey, Hunt, Jane Austen and selected minor writers.

371 Prose and Poetry of the Victorian Period (3) (F&W)

Critical readings of selections from Tennyson, Browning, Arnold and others, in addition to selections from the major prose writers.

and the First World War. Hardy, Hopkins, Conrad, Shaw, Wilde, Yeats and others.

373 The American Renaissance (3) (F&W)

Prerequisite: English 171. American literature of the nineteenth century. Emerson, Thoreau, Hawthorne, Melville, Whitman and others.

374 American Realism and Naturalism (3) (F&W)

American literature of the late nineteenth and early twentieth centuries. James, Twain, Stephen Crane, Dreiser and others.

375 American Fiction to World War I (3) (F)

Development of the novel and short story in America.

376 Modern American Fiction (3) (F&W)

The novel and short story in America since World War I. There may be some attention to British and Continental influences.

383 Modern British Fiction (3) (F)

Critical reading and analysis of British fiction of the twentieth century. There may be some attention to American and Continental influences.

384 Modern Poetry (3) (F&W)

Critical reading and analysis of poetry of the late nineteenth and early twentieth centuries. Yeats, Eliot, Frost, Williams and others.

385 Modern Drama (3) (F&W)

British, American and European drama of the last one hundred years: the well-made play, the problem play, verse drama, new definitions of tragedy, the angry theater, theater of the absurd.

386 Poetry Since World War II (3) (V)

Reading and analysis of contemporary poetry.

Special Offerings**90 Freshman Seminar (3) (V)**

Prerequisite: Freshman standing and consent of instructor. Topics to be announced. Weekly seminars supplemented by individual conferences. Limited to twelve students.

250 Special Studies (1-3) (F&W)

Prerequisite: A course in area of proposed work and consent of instructor. Individual work, with conferences adjusted to needs of the student. May not be used to meet specific English department distribution and language requirements.

262 The Curriculum and Methods of Teaching English (3) (F&W)

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scope and sequence of the English courses in the school curriculum, with emphasis on the selection and organization of materials and methods of instruction and evaluation. Attention is also directed toward learning the techniques and research tools of the scholar in the field of English. To be taken concurrently with student teaching.

290 Seminar (3) (F&W)

Prerequisite: Consent of instructor. Intensive reading, critical discussion and writing on topics to be announced each semester. Since the topics of English 290 may change each semester, the course may be repeated for credit if the topic is substantially different. Enrollment limited to twelve students.

Speech Communication**10 Basic Communication (3) (F&W)**

Prerequisite: Interview with and consent of instructor before enrolling in course. Development of basic communication skills. Includes small group interaction, non-verbal communication, role playing, audience awareness and theatre improvisation.

101 Effective Speaking (3) (F&W)

Prerequisite: Sophomore standing. Emphasis on effective oral communication, formal and informal. Theories and techniques of argument and persuasion, organization, evidence, delivery.

110 Introduction to Radio and Television Broadcasting (3) (F&W)

An introduction to broadcasting, including the areas of history, government regulations, station operation and program development.

120 Introduction to the Theatre (3) (F&W)

A study of theatre as an art form, emphasizing the audience's appreciation of the art of the playwright, actor, director and designer. Study of major periods, genres and plays from classical to modern times.

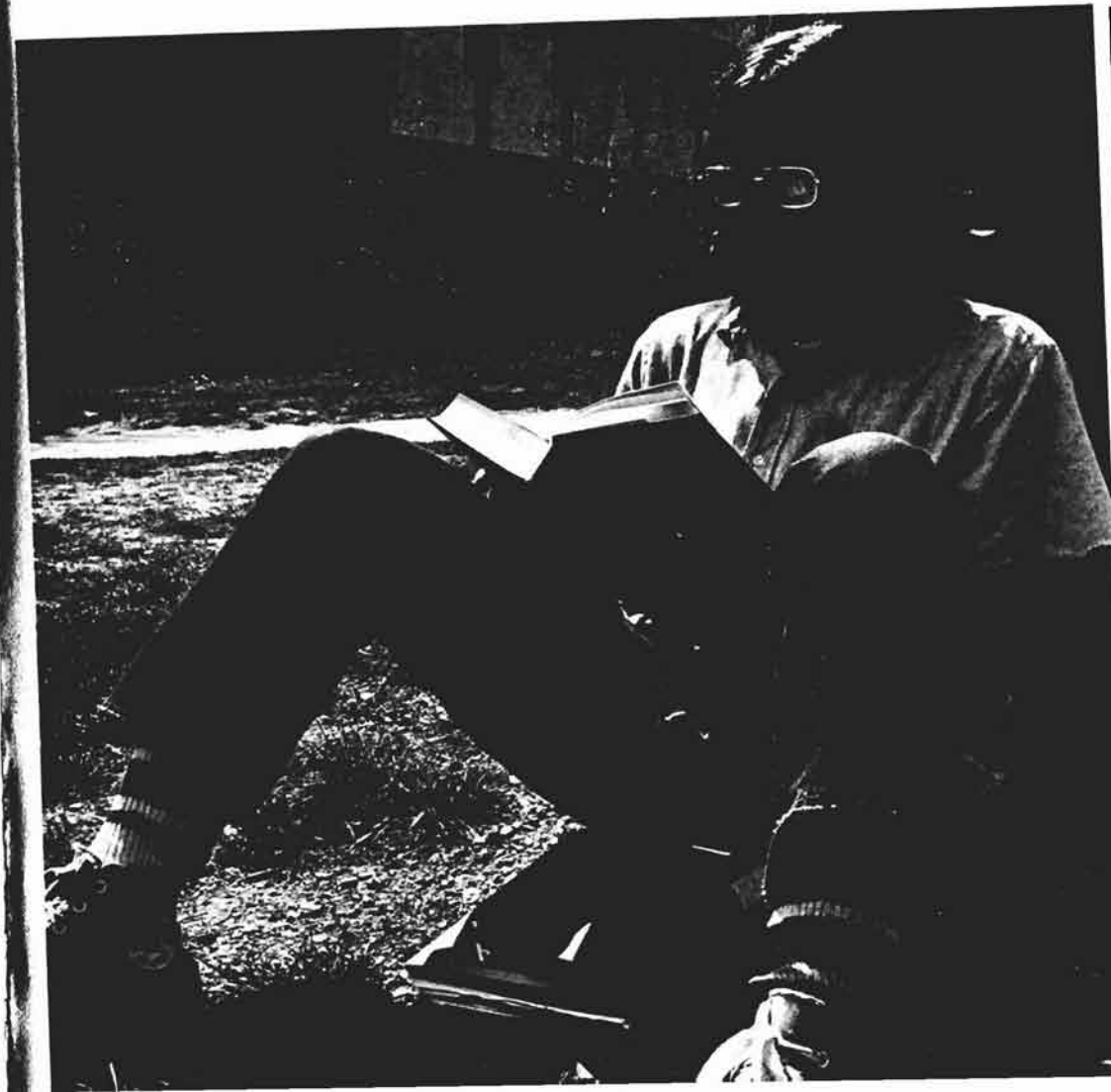
121 Theory and Practice in the Fundamentals of Acting (3) (F&W)

123 Play Production (3) (W)
An introduction to the fundamental techniques of play production, including theatre organization, play selection, interpretation, casting, rehearsal procedure, directorial techniques, technical elements, etc. The course is terminal for those students who do not desire to pursue formal study in play production and is introductory for those students who desire to continue a more detailed study of the elements of play production.

140 Introduction to Argumentation and Debate (2) (F)



The non-English major will find a number of lower-level courses with minimal prerequisites but with the same mental stimulation and breadth that characterizes the study of English.



Application of logic and audience analysis. Preparing briefs. Some debating.

199 Special Projects in Communication (1) (F&W)
(Repeatable to a maximum of four hours)
Prerequisite: Consent of instructor. Work on special projects in the students field of interest, with conferences adjusted to needs of the student.

203 Introduction to Communication Theory and Research (3) (Alt. F&W)
A survey of communication theories and research techniques. Use of several research techniques and application of one or more in a communication research project.

205 Communications in American Politics (3) (Alt.F)
Analysis of audience response and media preferences in political campaigns, campaign communications strategy, campaign speeches, candidate's uses of television and other mass media and measuring effectiveness of campaign communications.

211 The Broadcast Audience (3) (W)
A survey of techniques of audience analysis, including practical application to program development, with emphasis on the role of the audience in the communication process.

212 Writing for Radio and Television (3) (Alt.W)
Prerequisite: Speech 110 or permission of instructor.
Fundamentals of writing for the broadcast media. Includes format development and writing of news, public affairs, drama and commercials.

230 Small Group Communication (3) (W)
Development of communication skills needed in small group decision-making. Application of these skills to contemporary problems, with special emphasis on urban problems.

240 Persuasive Communication (3) (F&Alt.W)
A study of persuasive communication including theories, techniques, forms, functions, applications, potential and limitations for individual and organizations. Insights from both classical rhetoric and contemporary communications theory.

250 Mass Media and Society (3) (F&W)
Nature and functions of mass communication with appraisal of the performance of the mass media in society.

Fine Arts

Program

The Department of Fine Arts offers both academic and applied coursework in art and music leading to the bachelor of arts in art history, bachelor of arts in music, bachelor of arts in music history and literature, and the bachelor of music in music education with teacher certification (most music majors select this as a career program). It is not possible to earn a degree in fine arts in the Evening College.

All students, majors and nonmajors, may enjoy the esthetic and intellectual stimulation which a first-hand study and practice of the fine arts brings. In addition to certain academic courses which anyone may elect, there are several studio courses in art. In music, in addition to a wide range of applied music courses, there are ten musical organizations.

Resources available in art and music include the department's slide collection of art works which numbers about 50,000 titles. There are facilities for photo-copying and mounting slides. Gallery 210 in Lucas Hall houses a variety of public exhibitions during the school year, under the direction of the art faculty. Majors in art assist in preparing each show. The Saint Louis Art Museum and private galleries offer first-hand opportunity to observe representative works. Music facilities include large rehearsal rooms, an electronic piano laboratory, an ear training laboratory, and a limited number of sound-proof practice rooms equipped with pianos. The department also owns 100 band and orchestra instruments for instruction in the music education program. There is an ample library of records and study scores, and a large slide collection which illustrates music history and instruments. For the special course in non-Western music, an instrument collection has been gathered from around the world.

The St. Louis County Chapter of Mu Phi Epsilon, International Music Sorority, awards annually a cash prize to a junior woman music major recommended by the faculty.

General Education Requirements

General education requirements apply to all programs, with the exception of the bachelor of music program in which foreign language study is required for applied voice students only. Majors may not take required courses in their degree programs on the pass-fail basis.

For nonmajors a maximum of eight credit hours in applied music or studio art is allowed toward graduation (for example, band, chorus, studio art, including credit transferred). Department courses which meet the college requirement for non-Euro-American study are Art 145, Survey of Oriental Art; Art 207, Primitive Art; and Music 5, Introduction to Non-Western Music. For the elementary education major in the School of Education the fine arts faculty teaches three courses in the content and techniques of art and music for children (Art 139, Art Activities for Elementary School; Music 134, Music Fundamentals for the Elementary School Teacher; and Music 137, Elementary School Music).

Degree Requirements

Bachelor of Arts in Art History

The major in this field studies the visual arts from prehistory to the present from the standpoints of style and symbol. The techniques, materials, and tools of the artist are investigated in a media course. Less conventional learning experience is gained in creating multimedia projects as assignments in selected courses.

The major must complete a minimum of 35 credit hours of art history courses, but no more than 45 hours. Required courses are:

- 1 Introduction to Art 1
- 2 Introduction to Art 2
- 3 Art History Media Lab
- 205 Classical Art and Archaeology of Greece and Rome or
210 Medieval Art
- 221 Italian Renaissance Art or
222 Northern Renaissance Art
- 226 Baroque Art in Italy and France or
227 Baroque Art in Holland, Flanders and Spain
- 241 Nineteenth Century Art or
242 Twentieth Century Art
- 293 Senior Seminar

Nine hours in studio art may be added. French or German is recommended for the foreign language requirement. Each student is assigned an adviser to assist in the selection of specific courses.

Degree Programs in Music

Admission to all degree programs in music is by audition and interview to demonstrate musical aptitude and potential, moderate technical proficiency, and seriousness in selecting music as a four-year course of study. Auditions are scheduled from January to May for the fall semester. A limited number are held in December for the winter semester. Applicants must have received admission to the university before requesting



an audition. A short senior recital is required for graduation as evidence of sound musicianship, a close acquaintance with a portion of musical literature, and the ability to bring it to actual performance. The department position is that if the future teacher, performer, or composer does not reach such a technical and artistic level in the undergraduate program, he or she may fail to acquire it later, regardless of one's professional position.

Every music major will be required to participate in an approved ensemble and to study one applied area progressively each semester of the degree program. Standards of achievement in applied music are on file in the department office. Majors are required to appear in performances at the discretion of the department. Non-keyboard players will be required to pass an examination in piano proficiency (Music 118 or equivalent for instrumentalists, Music 120 for vocalists).

Degree programs consist of the following course requirements. An adviser is assigned each student to assist in the selection of specific courses.

Bachelor of Arts in Music

Music Theory
3 Theory of Music
4 Theory of Music
111 Theory of Music
112 Theory of Music
141 Orchestration
151 Conducting

Music History and Literature
101 History of Western Music
102 History of Western Music
and one 300-level course.

Applied Area

Ensemble
Four hours maximum credit

Senior Readings 192

Bachelor of Arts in Music History and Literature

Music Theory
3 Theory of Music
4 Theory of Music
111 Theory of Music
112 Theory of Music
141 Orchestration
151 Conducting

Music History and Literature
101 History of Western Music
102 History of Western Music
and three 300-level courses.

Applied Area
Piano 12 hours

Ensemble
Four hours maximum credit

Senior Readings 192

Bachelor of Music in Music Education

Music Theory
3 Theory of Music
4 Theory of Music
111 Theory of Music
112 Theory of Music
141 Orchestration

Music History and Literature
101 History of Western Music
102 History of Western Music
and one 300-level course.

Applied Music
private lessons 16 credit hours

Music facilities include large rehearsal rooms, an electronic piano laboratory, an ear training laboratory, and a limited number of sound-proof practice rooms equipped with pianos.

Conducting 151 and Advanced Conducting 251.

Ensemble
Four hours maximum credit

Curriculum and Methods of Teaching
Elementary and Secondary School Music
Six hours

Professional Education and Student
Teaching
Eighteen hours

Senior Readings 192

Fine Arts Faculty

Arnold Perris, Ph.D.
Northwestern University chairman, associate
professor of Music

Art

Marie Larkin, Ed.D.
University of Missouri-Columbia professor

Anthony S. Calarco, Ph.D.
Case-Western Reserve University assistant professor

Paul Corby Finney, Ph.D.
Harvard University assistant professor

Carole N. Kaufmann, Ph.D.
University of California-Los Angeles assistant
professor

Sylvia Walters, M.F.A.
University of Wisconsin-Madison assistant professor

Michael Taylor, Ph.D.
Princeton University assistant professor

Nancy Pate, M.A.
instructor

Jean Tucker, M.A.
instructor

Music

Kenneth E. Miller, Ph.D.
Northwestern University professor

Ronald Arnatt, D.M.
Westminster Choir College associate professor

Warren T. Bellis, D.M.A.
University of Michigan associate professor

Evelyn Mitchell
Concert Pianist associate professor

Gertrude Ribla
Metropolitan Opera associate professor

Kenneth Billups, M.M.
assistant professor

Clarence Drichta, M.M.
assistant professor

Leonard Ott Ph.D.

Fred Willman, Ph.D.
University of North Dakota assistant professor

Darwyn Apple, M.M.*
instructor (violin)

Darrell Berg, M.A.
instructor

Jacob Berg*
instructor (flute)

Robert Ceccarini
instructor (brass)

Aleksander Ciechanski
instructor (cello)

Hubert Drury, M.M.
instructor

Gerald Fleminger*
instructor (viola)

Jan Gippo, M.M.*
instructor (flute)

Laura Hearne, B.M.
instructor (harp)

Melvyn Jernigan*
instructor (trombone)

Henry Loew*
instructor (string bass)

John MacEnulty*
instructor (tuba)

James Meyer, B.S.*
instructor (saxophone)

Robert Motti*
instructor (bassoon)

Richard O'Donnell*
instructor (percussion)

Delores Riley, M.A.
instructor

Alan Rosenkoetter
instructor (guitar)

Evelyn Rubenstein
instructor

Bernard Schneider B.M.*

Fine Arts Description of Courses

Art

Prerequisites may be waived by consent of instructor. For the nonmajor no more than eight hours in studio art will be accepted toward graduation.

1 Introduction to Art I (3) (F&W)

Illustrated discussion with examples from varied historic and contemporary art fields on the nature of art, functions and methods of creative expression.

2 Introduction to Art II (3) (F&W)

Prerequisite: Art I. Study of the historical movements in art with emphasis on the major artists and monuments.

3 Art History Media Lab (1) (V)

Consent of instructor. Technical demonstration of and research into the various materials and media used by the artist. (Formerly 201.)

6 Introduction to the Afro-American Arts (3) (V)

A survey of the cultural contributions of African music, dance and sculpture to contemporary America.

40 Basic Drawing (3) (V)

Prerequisite: Consent of department. An introduction to drawing through the study of the figure, object and environment.

50 Basic Design (3) (V)

Prerequisite: Consent of department. Studio problems in the creative use and integration of the elements of two dimensional design: line, form, space, texture and color.

90 Freshman Seminar (3) (V)

Prerequisite: Freshman standing and consent of instructor. Topics to be announced. Weekly seminars supplemented by individual conferences.

139 Art Activities for Elementary School (3) (F&W)

(Same as Education 139) A study of art principles and laboratory experiences with various media and materials. Stresses curriculum planning and development of the elementary school program in art.

145 Survey of Oriental Art (3) (V)

Prerequisite: Art 2. The study of the architecture, sculpture and painting of India, China, Japan and Southeast Asia, emphasizing art as a universal language that furthers our understanding of radically different cultures.

205 Classical Art and Archaeology of Greece and Rome (3) (V)

Prerequisite: Art 2. A general survey of the

Gary Smith, M.M.*
instructor (trumpet)

Janis Smith, B.M.E.*
instructor (flute)

Mary Kay Stamper, M.A.
instructor

Larry Strieby*
instructor (French horn)

Thomas Stubbs, B.S.*
instructor (percussion)

Yuan Tung*
instructor (cello)

Christine Ward*
instructor (clarinet)

Richard Woodhams*
instructor (oboe)

*Member, Saint Louis Symphony Orchestra

from the earliest times through the Hellenistic Period and the Roman Empire.

207 Primitive Art (3) (V)

Prerequisite: None. A survey of the art of preliterate peoples of North America, Oceania and Africa dating from prehistoric times through the present. This course will be approached from both aesthetic and sociological standpoints. Special attention will be paid to culture contact and the effects of acculturation.

210 Medieval Art (3) (V)

Prerequisite: Art 2. The art and architecture of the Middle Ages from the Early Christian era through the late Gothic Period.

213 History of Photography (3) (V)

Prerequisite: Art 2 or consent of department. A study of photography: its historical development, an examination of it as an art medium, and its influence on the development of modern art.

221 Italian Renaissance Art (3) (V)

Prerequisite: Art 2. A study of Italian Renaissance Art from its early developments in the fourteenth and fifteenth centuries to its climax and maturity in the sixteenth century.

222 Northern Renaissance Art (3) (V)

Prerequisite: Art 2. Fifteenth and sixteenth century art in Northern Europe with emphasis on the art of the Netherlands, France and Germany.

226 Baroque Art in Italy and France (3) (V)

Prerequisite: Art 2. Art and architecture in Italy and France from c. 1600-1750. A study of the Baroque, Classicist and Rococo styles with emphasis on the contributions of individual artists.

227 Baroque Art in Holland, Flanders and Spain (3) (V)

Prerequisite: Art 2. Seventeenth century art in Holland, Flanders and Spain with emphasis on such artists as Rembrandt, Rubens, VanDyck and Velasquez.

230 American Art (3) (V)

Prerequisite: Art 2. A survey of the art of the United States, both as an extension of the European tradition and for its original contributions.

241 Nineteenth Century Art (3) (V)

Prerequisite: Art 2. The study of European Art from Neoclassicism and Romanticism through Post-Impressionism.

242 Twentieth Century Art (3) (V)

Prerequisite: Art 2. A detailed study of trends in

Abstract Expressionism and more recent developments.

245 The Art of the Print (3) (V)

Prerequisite: Art 2. Dealing with the history of print forms: woodcuts, etchings, engraving, lithographs, silk-screen, monotypes and mixed media. Special emphasis will be given to the importance of prints to the art and artists of our time.

290 Special Study (credit arranged) (F&W)

Prerequisite: Junior or Senior standing and consent of department and instructor. Independent study through readings, reports or field research.

293 Senior Seminar (3) (V)

Prerequisite: Senior standing in Art History. Intensive reading, discussion and writing on topics to be announced.

Music

Prerequisites may be waived by consent of department. For the nonmajor no more than eight hours in applied music courses will be accepted toward graduation.

44, 45, 115, 135, 155, 245 Applied Music (2) (F&W)

Registration by audition and permission of the department. Courses may be repeated for credit. Courses are offered in the following areas: bassoon, clarinet, classical guitar, euphonium, flute, French horn, oboe, harp, organ, percussion, piano, saxophone, trombone, trumpet, tuba, violin, viola, violoncello, string bass and voice.

14, 15 Piano Proficiency (2) (14F, 15W)

Prerequisite: Permission of department. Group instruction for music majors who do not meet beginning keyboard requirements.

17 Beginning Instrumental Techniques (1) (F&W)

Prerequisite: Permission of department. Performance, teaching techniques and materials for the various media.

- a. Bassoon
- b. Clarinet
- c. Flute
- d. French Horn
- e. Oboe
- f. Percussion
- h. Saxophone
- i. String Bass
- j. Trumpet
- k. Trombone
- l. Tuba
- m. Viola
- n. Violin

40 University Chorus (1) (F&W)

Prerequisite: Consent of instructor. Preparation and performance of choral literature.

41 The University Singers (1) (F&W)

Prerequisite: Consent of instructor. The study and performance of music for vocal chamber ensemble.

50 University Orchestra (1) (F&W)

Prerequisite: Consent of instructor. Study, preparation and performance of orchestral repertory.

52 University Band (1) (F&W)

Prerequisite: Consent of instructor. Study, preparation and performance of music for the wind ensemble and band.

54 Chamber Ensemble (1) (F&W)

Prerequisite: Permission of department. Study, preparation and performance of music for small ensembles.

- a. Brass
- b. Jazz
- c. Percussion
- d. Strings
- e. Voice
- f. Woodwinds

55 Opera Workshop (1) (F&W)

Prerequisite: Consent of instructor. Opera from its inception to the present day through lectures, recordings, demonstrations, readings and participation in performance and production.

60 Collegium Musicum (1) (V)

Prerequisite: Consent of instructor. Performance of music for chamber ensemble with particular emphasis on the Renaissance and Baroque Periods.

116, 118, 119, 120 Intermediate Piano Proficiency (1) (F&W)

Prerequisite: Music 15 or permission of department. Continuation of piano proficiency study.

123, 124, 125 Intermediate Vocal Techniques (1) (V)

Prerequisite: Permission of department. Instruction for non-voice majors in the choral option of the music education curriculum.

1 Introduction to Music (3) (F,W,S)

A historically oriented study of art music, its styles and forms from the Baroque Period to the present day. This course will not apply toward requirements for a music major.

2 Introduction to Symphonic Music (3) (V)

Prerequisite: Music 15 or permission of department. This course will not apply toward requirements for a music major.

3 Theory of Music (3) (F)

The basic materials and their use in analyzing and writing music. Systematic instruction in ear training and sight-singing. Primarily for music majors.

4 Theory of Music (3) (W)

Prerequisite: Music 3 or consent of department. Continuation of Music 3.

5 Introduction to Non-Western Music (3) (W)

A survey of the music of the Asia, Oceania and Africa, with emphasis upon the function of music in the various cultures. This course will not apply toward requirements for a music major.

6 Introduction to the Afro-American Arts (3) (V)

A survey of the cultural contributions of African music, dance and sculpture to contemporary America. This course will not apply toward requirements for a music major. (same as Art 6.)

7 Introduction to Jazz (3) (V)

A survey course which examines the musical, historical and social aspects of the subject. This course will not count toward requirements for a music major.

90 Freshman Seminar (3) (V)

Prerequisite: Freshman standing and consent of instructor. Topics to be announced. Weekly seminars supplemented by individual conferences. Limited to 12 students.

101 History of Western Music (3) (F)

Prerequisite: Music 3 or consent of department. A general survey of the history of Western Music. Includes the evolution and development of styles, forms and their social setting.

102 History of Western Music (3) (W)

Prerequisite: Music 3 or consent of department. Continuation of Music 101.

111 Theory of Music (3) (F)

Prerequisite: Music 4 or consent of department. Altered chords and modulation. Application of vocabulary and techniques to music of the eighteenth and nineteenth centuries. Composition in simple forms.

112 Theory of Music (3) (W)

Prerequisite: Music 111 or consent of department. Continuation of Music 111.

121 Theory of Music (2) (F)

Prerequisite: Music 112 or consent of department.

122 Theory of Music (2) (V)

Prerequisite: Music 121 or consent of the department. Continuation of Music 121.

134 Music Fundamentals for the Elementary School Teacher (2) (F,W,S)

Prerequisite: None. An introductory course in the rudiments of music for the elementary classroom teacher. Prerequisite for Music 137. This course will not apply toward requirements for a music major.

137 Elementary School Music (2) (F,W,S)

(Same as Education 137) Prerequisite: Music 134 or consent of department. The role of the classroom teacher in the development of the elementary school general music program; selection of music, demonstration and practice of methods, study of resources. This course will not apply toward requirements for a music major.

141 Orchestration (2) (W)

Prerequisite: Music 112 or concurrent. Study of the instruments of the orchestra; scoring for various instrumental ensembles and orchestra.

151 Conducting (2) (F)

Prerequisite: Music 112 or consent of department. Techniques and problems in conducting. Discussion and study of musical terminology. Rehearsal procedures for vocal and instrumental organizations.

192 Senior Readings (2) (F&W)

Prerequisite: Consent of department. Required of all senior music majors. Directed readings and research in an area mutually acceptable to the student and instructor.

251 Advanced Conducting (2) (W)

Prerequisite: Music 151 or consent of department. Advanced study of conducting and rehearsal techniques, score reading and interpretation.
a. Instrumental
b. Choral

257 Curriculum and Methods of Teaching Elementary School Music (3) (F)

Prerequisite: Music 112 and Education 101. For the Music Education major. A study of the elementary school music curriculum emphasizing the objectives, methods of teaching and staffing music classes, analysis of instructional materials and resources.

267 Curriculum and Methods of Teaching Secondary School Music (3) (W)

Prerequisite: Music 112 and Education 101. For the Music Education major. The secondary school music curriculum including choral and instrumental performance organizations, non-performance classes, related art courses, administrative procedures. The class is divided when appropriate according to the

300 Advanced Techniques in Music Education (1-2) (V)

Prerequisite: A 200-level music education course or permission of the department. Intensive study for advanced music education students and music teachers, emphasizing specialized techniques and innovative concepts. Topics to be announced. May be repeated for credit.

321 Music of the Middle Ages (3) (V)

Prerequisite: Music 101 or consent of department. A study of music and musical thought from the beginning of Christianity to 1450. Gregorian chant, polyphonic music, the Ars Antiqua and the Ars Nova.

322 Music of the Renaissance (3) (V)

Prerequisite: Music 101 or consent of department. A study of the theoretical and practical impact of humanism on music, musicians, and musical thought from 1450 to 1600. Sacred and secular music; the rise of an instrumental idiom.

323 Music of the Baroque (3) (V)

Prerequisite: Music 101 or consent of department. A detailed study of music from 1600 to 1750. the rise of the new style, national styles in the seventeenth century and the culmination of the baroque period.

324 Music of the Classic Period (3) (V)

Prerequisite: Music 102 or consent of department. A study of the growth of classical style; galant and expressive styles; Mozart, Haydn and Beethoven.

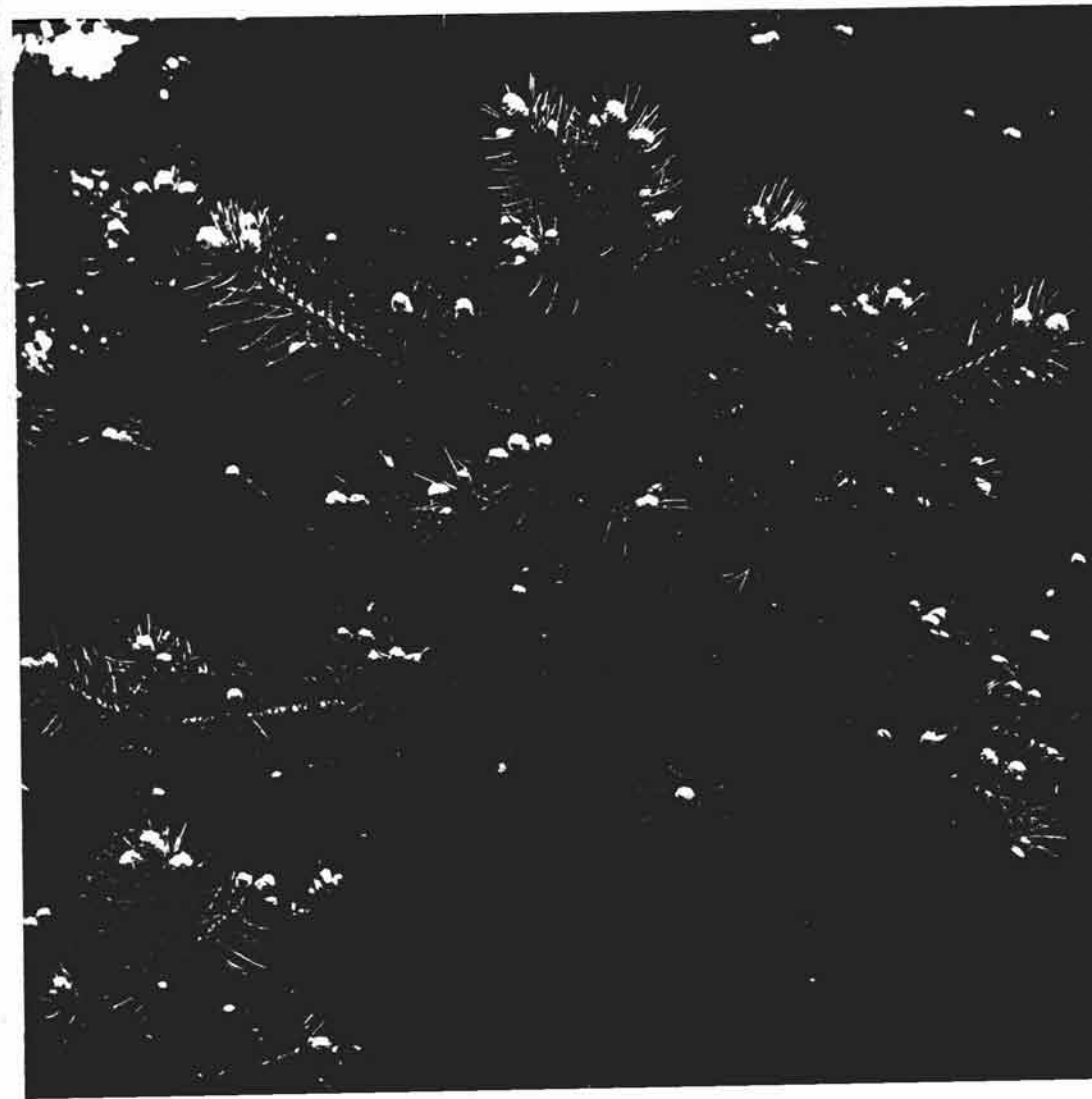
325 Music of the Romantic Period (3) (V)

Prerequisite: Music 102 or consent of department. Composers, forms and styles in nineteenth century music. The literary and social background of musical romanticism.

326 Music of the Twentieth Century (3) (V)

Prerequisite: Music 102 or consent of department. A detailed study of trends in modern music and of influential composers; Impressionism, serial composition, electronic music and other recent techniques.

All students may enjoy the esthetic and intellectual stimulation of the study and practice of the fine arts.



History

Program

The Department of History offers work leading to the bachelor of arts in history, bachelor of arts in history with teacher certification in cooperation with School of Education, bachelor of science in the School of Education with an emphasis on social studies (see School of Education for details), and the master of arts in history.

The department feels that history is an essential component of a liberal arts education and is committed to providing a quality program which will be of value to those seeking a career in law, teaching, business, government service, and the historical profession itself.

General Education Requirements

Each history major must satisfy the general education requirements of the university listed on page 32 and the general education requirements of the College of Arts and Sciences listed on page 44. Courses in history may be used to meet the university's social science area requirement. The college's foreign language requirement may be met in any language the student prefers. The non-Euro-American requirement may also be met by any of the courses listed on page 44. History courses meeting the non-Euro-American requirement are:

- 61 Asian Civilization
- 62 Asian Civilization
- 71 Latin American Civilization
- 361 Modern Japan: 1850 to Present
- 362 Modern China: 1800 to Present

Any history course may be taken on a pass-fail basis, but majors may not apply such courses to the basic 36-hour requirement for the B.A. and B.S. degrees.

The study of history provides a background for careers in law, teaching, business, government, and the historical profession.

Degree Requirements

Bachelor of Arts in History

A major in history consists of at least 36 hours with a maximum of 45 hours. The student must achieve an overall grade point average of 2.0 in all courses attempted in his or her major department, and must have a minimum of 36 hours of "C" work or better.

The course requirements are designed to provide exposure to several major fields of historical inquiry. At the introductory level, majors are required to take History 31 and 32, Topics in Western Civilization, and to select two courses from the American civilization sequence; History 3, American Civilization; History 4, American Civilization; History 5, American Civilization; and History 120, Black History in the U.S. In addition, the student must take either History 292, Historiography, or History 293, Senior Seminar, and a minimum of 18 hours at the 300-level, including two 300-level European history courses, two 300-level U.S. history courses, one 300-level course in another area, and at least two electives. Other areas, at present, consist of Asian, Latin American, wars of national liberation, Asian-American relations, quantitative methods, and history of science. No more than 15 hours at the 300-level may be elected in any of these three divisions.

Bachelor of Arts in History with Teacher Certification

For information regarding teacher certification with an emphasis in history consult the School of Education. History 265, Curriculum and Methods of Teaching History and Social Studies, may be taken in place of one 300-level elective by those students seeking certification.

Bachelor of Science in Education with an Emphasis on Social Studies

The departmental requirements for this degree are identical to those for the bachelor of arts, but the student is expected to comply with the general education requirements of the School of Education rather than with those of the College of Arts Sciences.

History Faculty

Arthur H. Shaffer, Ph.D.
University of California, Los Angeles chairman,
associate professor

James D. Norris, Ph.D.
University of Missouri-Columbia professor

James Neal Primm, Ph.D.
University of Missouri-Columbia professor

Everett Walters, Ph.D.
Columbia University dean of faculties, professor

Roy Gene Burns, Jr. Ph.D.
University of Missouri-Columbia associate professor

Walter Ehrlich, Ph.D.
Washington University associate professor

Louis S. Gerteis, Ph.D.
University of Wisconsin associate professor

Susan M. Hartmann, Ph.D.
University of Missouri-Columbia associate professor

William S. Maltby, Ph.D.
Duke University associate professor

Charles P. Korr, Ph.D.
University of California, Los Angeles associate
professor

Howard S. Miller, Ph.D.
University of Wisconsin associate professor

Richard H. Mitchell, Ph.D.
University of Wisconsin associate professor

George F. Putnam, Ph.D.
Harvard University associate professor

Richard W. Resh, Ph.D.
University of Wisconsin associate professor

Blanche M. Touhill, Ph.D.
St. Louis University associate professor

Mark A. Burkholder, Ph.D.
Duke University assistant professor

Jerry Cooper, Ph.D.
University of Wisconsin assistant professor

P. Corby Finney, Ph.D.
Harvard University assistant professor

Steven Haise Ph.D.

Winston Hsieh, Ph.D.
Harvard University assistant professor

Ann B. Lever, Ph.D.
University of North Carolina assistant professor

Anthony O'Donnell, Ph.D.
Princeton University assistant professor

Edward Paynter, Ph.D.
University of California, Berkeley assistant professor

James L. Roark, Ph.D.
Stanford University assistant professor

Steven W. Rowan, Ph.D.
Harvard University assistant professor

Margaret L. Sullivan, Ph.D.
St. Louis University assistant professor

Martin G. Towey, Ph.D.
St. Louis University assistant professor

History Description of Courses

3 American Civilization (3) (F&W)
Evolution of the cultural tradition of the Americas
from the earliest times to the mid-nineteenth century,
with emphasis on the relationship of ideas and
institutions to the historical background. Course fulfills
the state requirement.

4 American Civilization (3) (F&W)
Continuation of History 3 to the present. Course
fulfills the state requirement. Either 3 or 4 may be
taken separately.

5 American Civilization (3) (F&W)
Dominant themes in American Civilization from the
sixteenth century to the present. Course fulfills the
state requirement and may be taken as an alternative
to History 3 and 4 by history majors.

**31 Topics in European Civilization: The
Emergence of Western Europe to 1715 (3) (F&W)**
Prerequisite: None. Lectures and discussions on the
development of Western European society and
tradition from approximately 1000 to 1715.

**32 Topics in European Civilization: 1715 to the
Present (3) (F&W)**
Prerequisite: None. Lectures and discussions on the
development of Western European society and
tradition from 1715 to the present.

45 Race (3) (V)
(Same as Anthropology 45, Psychology 45 and
Sociology 45) Prerequisite: 12 hours of college course
credit. Origins and functions of conceptions of race.
Biological and social definitions of race, the function
of racial ideologies for societies; social, historical and
psychological basis of racism in the U.S.; the
consequences of racism for the individual and
societies.

61 Asian Civilization (3) (F)
Prerequisite: None. The development of Asian
Civilization from earliest times to the Manchu
conquest.

62 Asian Civilization (3) (W)
Prerequisite: None. Either 61 or 62 may be taken
separately. Continuation of History 61 with emphasis
on the Asian response to the Western incursion.

71 Latin American Civilization (3) (F)
Prerequisite: None. A survey of selected topics
important in the development of Latin America from
pre-Columbian times to the twentieth century.

90 Freshman Seminar (3) (V)
Prerequisite: Freshman standing and consent of
instructor. Topics to be announced. Weekly seminars

students.

99 The City (3) (V)
(Same as Administration of Justice 99, Economics 99,
Political Science 99, Psychology 99 and Sociology 99)
Prerequisite: 12 hours of college credit. An
interdisciplinary course. Consideration of economic
factors, urban institutions, historical developments in
urbanization, problems of the inner city, suburbia and
the metropolitan area, ethnic groups, stratification and
psychological implications of urban living.

**101 Confusion of Chaos: The American
Experience (3) (F&W)**
(Same as English 101) Prerequisite: None. Selected
topics in American history and literature from the
colonial period to the present.

**102 Ethnic Cultures in America: Their History and
Literature (3) (V)**
(Same as English 102 and Interdisciplinary 102) The
course traces the history of the settlement of
European, Jewish, German, Italian, Irish, and Negro
groups in America. It will emphasize the problems of
assimilation as they are reflected for each group in
appropriate literary forms.

110 Ancient Civilization (3) (V)
Prerequisite: None. Selected topics in the history of
the Ancient Near East, Greece and Rome.

120 Black History in the United States (3) (F&W)
Prerequisite: None. The experience of Black people in
America from the period of the slave trade to the
twentieth century, beginning with the areas and
cultures of West Africa. The development and
importance of slave trade, the institutionalization of
slavery; Black resistance to bondage; the role of
Blacks during the Civil War and Reconstruction
Period; the rise of segregation and disfranchisement
of Blacks; the testing of laws and the protest and
revolutionary movements of today.

**265 Curriculum and Methods of Teaching History
and Social Studies (3) (F&W)**
(Same as Education 265) Prerequisite: Education 163
and a near-major in the subject matter. A study of the
scope and sequence of the history and social studies
courses in the school curriculum, with emphasis on
the selection and organization of materials and
methods of instruction and evaluation. Attention is
also directed toward learning the techniques and
research tools of the scholar in the field of history and
social studies. May not be counted toward a major in
history. To be taken concurrently with student
teaching.

292 History (3) (F&W)
Prerequisite: Department of department. The

development of the historical profession, the nature of history and the problems of historical writing.

293 Senior Seminar (3) (F&W)

Prerequisite: Consent of department. Required for all senior history majors who are candidates for graduation with honors. Recommended for all history majors planning to attend graduate school. Directed readings, research, and writing.

301 United States History: Colonial America to 1763 (3) (F)

Prerequisite: Junior standing or consent of instructor. English background of colonization; rise of distinctive New England and Southern societies; English colonial policy to the Peace of Paris.

302 United States History: Revolution and the New Nation, 1763-1815 (3) (W)

Prerequisite: Junior standing or consent of the instructor. The American Revolution and the creation of the new nation. The young republic and the development of the first American party system.

303 United States History: Nationalism and Sectionalism, 1815-1860 (3) (W)

Prerequisite: Junior standing or consent of the instructor. The Era of Good Feelings; the Age of Jackson; Manifest Destiny; the political and social developments of the antebellum period relating to the growth of sectionalism and the developing antislavery crusade.

304 United States History: 1860-1900 (3) (W)

Prerequisite: Junior standing or consent of the instructor. The Civil War; Reconstruction; industrial and urban expansion and their impact on American life.

305 United States History: 1900-1940 (3) (F)

Prerequisite: Junior standing or consent of the instructor. The economic, political and social developments and crises of the mature industrial United States. The growing importance of foreign relations.

306 United States History: 1940 to the Present (3) (W)

Prerequisite: Junior standing or consent of instructor. The economic, political and social developments and crises of post-industrial United States. The role of foreign affairs in American life.

311a Constitutional History of the U.S. to 1865 (3) (V)

Prerequisite: Junior standing or consent of instructor. Origins and historical development of the principal institutions and ideas of the American Constitutional

establishment and early growth of the nation; Constitutional issues of Hamiltonianism, Jeffersonianism, and Jacksonianism, including the role of the Supreme Court, the Constitutional conflict over federalism and the nature of the Union; Constitutional issues in the Civil War.

311b Constitutional History of the U.S. Since 1865 (3) (V)

Prerequisite: Junior standing or consent of the instructor. The Constitutional issues of the Reconstruction Era, how they were resolved, and the implications for the future, with special emphasis upon the Fourteenth Amendment and the evolution of the due process concept and their relations with individual liberties and civil rights; the impact of industrialization and urbanization upon American constitutional thought and development; the evolving impact of the Supreme Court; historical background to current Constitutional issues.

312 United States Diplomatic History (3) (V)

Prerequisite: Junior standing or consent of the instructor. An analysis of the development, formulation, and implementation of the United States foreign policy, including the role of the President, Congress, Department of State, and other agencies. Reference will be made to the interdependence of domestic and foreign problems and policies.

313 American Military History (3) (V)

Prerequisite: Junior standing or consent of instructor. A study of American military institutions from colonial times to the present. The impact of the military upon American social, political and economic life, as well as civilian attitudes toward the services.

314 Growth of the American Economy (3) (V)

Prerequisite: Junior standing or consent of the instructor. Economic factors in the development of American institutions, from the colonial period to the present. Emphasis is on banking, transportation, agriculture and international trade.

315a American Intellectual History (3) (F)

Prerequisite: Junior standing or consent of the instructor. Early American intellectual development.

315b American Intellectual History (3) (W)

Prerequisite: Junior standing or consent of the instructor. Modern American intellectual development.

316 History of Science in the United States (3) (V)

Prerequisite: Junior standing or consent of the instructor. Science as a method, as a body of knowledge, and as a social institution in the American context; relationships between scientific, social,

Nonscience majors welcome.

321 Women in the United States History (3) (F)

Prerequisite: Junior standing or consent of the instructor. Development of women's economic, political and social role in the United States with special emphasis on the nineteenth and twentieth centuries. Women and work; women and the family; women and reform movements; women and education; feminist theorists and activists; images of women.

322a Black History in the United States: Slavery and Emancipation (3) (F)

Prerequisite: Junior standing or consent of the instructor. The origin, institution, and operation of American slavery; the Black response to slavery and the movement for emancipation.

322b Black History in the United States: 1890 to Present (3) (W)

Prerequisite: Junior standing or consent of the instructor. An intensive examination of immigration patterns, the role of the Supreme Court and protest organizations from the NAACP to the Black Panthers.

323 Immigration in United States History (3) (F)

Prerequisite: Junior standing or consent of the instructor. This course explores the background of immigration, general immigration trends and distribution patterns, ethnic communities in America, some comparisons of different immigrant groups, the immigrant's influence on the United States and the assimilation and acculturation of immigrants into American life.

324 American Frontier History (3) (V)

Prerequisite: Junior standing or consent of the instructor. The frontier considered as a factor in the development of American institutions. Frederick Jackson Turner and his critics. The westward course on settlement; the passing of the frontier.

325 Rise of Industrial America (3) (V)

Prerequisite: Junior standing or consent of the instructor. History of American business, industry, and labor.

326 American Urban History (3) (F)

Prerequisite: Junior standing or consent of the instructor. The rise of the city, and the transformation of ideas and institutions in the American city from colonial times to the present.

327 History of the American South (3) (W)

Prerequisite: Junior standing or consent of the instructor. Southern society and culture and the

328 Asian-American Relations (3) (F)

Prerequisite: Junior standing or consent of the instructor. A study of relations between American and Asian peoples from the early years of the China traders to the present.

329 U.S. and Wars of National Liberation (3) (W)

Prerequisite: Junior standing or consent of the instructor. A comparative study of the American response to selected revolutionary movements in Asia, Latin America and Africa.

331a The Ancient World: Israel (3) (V)

Prerequisite: Junior standing or consent of the instructor. Survey of Israel's history from the formation of the people to the final revolt under Simon Bar Kochba (132-135 C.E.).

331b The Ancient World: The Hellenistic Period (3) (V)

Prerequisite: Junior standing or consent of the instructor. Survey of the political history of the major and minor dynasties subsequent to the death of Alexander, with more detailed consideration of literature and the visual arts, philosophy and religion.

331c The Ancient World: Rome (3) (V)

Prerequisite: Junior standing or consent of the instructor. Survey of Roman history from the beginnings to 565 A.D.

332a Europe in the Early Middle Ages (3) (F)

Prerequisite: Junior standing or consent of the instructor. The end of the Roman Empire as a universal entity; the successor states of the Mediterranean and Northern Europe; the emergence of a Western Christendom under the Franks; the development of feudal states; the Gregorian reforms; the Crusades; the revival of education and learning in the twelfth century.

332b Europe in the High and Late Middle Ages (3) (W)

Prerequisite: Junior standing or consent of the instructor. Medieval society at its political, economic, and intellectual zenith; the crisis of the later Middle Ages; the papal schism and the development of national particular Churches within Catholicism; the rise of estate institutions.

333 The Age of the Renaissance (3) (F)

Prerequisite: Junior standing or consent of the instructor. The Italian and Northern Renaissance as a distinct age; political, socio-economic, intellectual, religious and artistic movements attending the decline of medieval society and the transition to the early

334 The Age of Reformation (3) (W)

Prerequisite: Junior standing or consent of the instructor. Religious, intellectual, political and socio-economic developments of the sixteenth century.

335 The Age of Absolutism, 1598-1715 (3) (F)

Prerequisite: Junior standing or consent of the instructor. Political, religious, intellectual and socio-economic developments during the decline of Spanish hegemony and the period of French domination. Special attention will be paid to different responses to the rise of absolute monarchy.

336 Europe in the Eighteenth Century, 1715-1789 (3) (W)

Prerequisite: Junior standing or consent of the instructor. The Old Regime and the Enlightenment.

338 Europe in the Nineteenth Century, 1815-1914 (3) (V)

Prerequisite: Junior standing or consent of the instructor. The major political, social, economic, and diplomatic developments in Europe from the end of the Napoleonic Wars to the beginning of World War I.

339 Europe in the Twentieth Century (3) (F)

Prerequisite: Junior standing or consent of the instructor. The impact of World Wars I and II; the search for equilibrium.

341a European Intellectual History: From Locke to Hegel (3) (V)

Prerequisite: Junior standing or consent of the instructor. Main currents of European intellectual thought from the late seventeenth through the mid-nineteenth century. From Locke to Hegel.

341b European Intellectual History: From Bentham to Freud (3) (V)

Prerequisite: Junior standing or consent of the instructor. Study of main currents of ideas in nineteenth century Europe in conjunction with social, economic and political events of the time. Topics considered are Liberalism, Socialism, Irrationalism and Psychoanalysis. Thinkers considered are Bentham, St. Simon, J.S. Mill, Coleridge, Marx, Ruskin, R. Wagner, Schopenhauer, Nietzsche and Freud.

342a Diplomatic History of Europe: Renaissance to 1815 (3) (V)

Prerequisite: Junior standing or consent of the instructor. A survey of European international relations beginning with the development of the techniques of modern diplomacy by the Italian city-states, with the emphasis on the way in which international relations changed with the break down of the unifying force of the Church and how

Spanish and French monarchies in the sixteenth and seventeenth centuries, respectively.

342b Diplomatic History of Europe: Since 1815 (3) (V)

Prerequisite: Junior standing or consent of the instructor. A survey of European international relations between the end of the Napoleonic Wars and the beginning of World War II, with emphasis on the rivalries of the great powers and the origins of their foreign policies.

343a Economic History: Pre-Industrial Europe (3) (F)

Prerequisite: Junior standing or consent of the instructor. A topical study of economic institutions and their development in Europe from Antiquity through the mid-eighteenth century, with emphasis on the agrarian economy; methods of artisan production; the role of currency, pre-industrial urbanization; the development of contracts, finance, and banking; the expansion of trade, and the emergence of international marketing areas. Considerable attention will be given to the social context of economic institutions and events.

344a History of the Church: Early Christianity (3) (F)

Prerequisite: Junior standing or consent of the instructor. Brief introduction to Jewish, Greek, and Roman antecedents, Christian beginnings, and the emergence of Christian traditions, to the Council of Nicea (325 A.D.)

344b History of the Church: The Middle Ages (3) (W)

Prerequisite: Junior standing or consent of the instructor. A topical study of the Christian Church in Europe as an autonomous and central institution from the sixth century through the Reformation Crisis. Special attention will be given to the relations between the Church and the secular world, and the contributions of medieval Christianity to the development of European institutions and ideas.

345 History of Technology in the West (3) (V)

Prerequisite: Junior standing or consent of the instructor. Technology as a characteristic of Western Culture; relationships between technology and economic and social development; emphasis on material artifacts as historical sources.

351a Medieval England (3) (F)

Prerequisite: Junior standing or consent of the instructor. A brief summary of the Anglo-Saxon heritage and the impact of the Norman Conquest, followed by an investigation of the institutional, social and legal evolution of the Realm of England, British

351b Yorkist and Tudor England (3) (F)

Prerequisite: Junior standing or consent of the instructor. The turmoil over the monarchy and the consolidation of the Tudor dynasty. A study of the English Reformation and the political and economic changes of the sixteenth century.

351c Stuart England (3) (W)

Prerequisite: Junior standing or consent of the instructor. A study of the English revolutions, religious controversy and the rise of Parliamentary power, the social and economic changes of the century and the role played by England in the European struggles of the period.

351d Hanoverian England (3) (W)

Prerequisite: Junior standing or consent of the instructor. A study of English politics, economics and culture during the Hanoverian period (1714-1837).

351e Victorian England (3) (F)

Prerequisite: Junior standing or consent of the instructor. A political, social and economic study of Great Britain during the reign of Queen Victoria (1837-1901).

351f Modern Britain (3) (V)

Prerequisite: Junior standing or consent of the instructor. An economic, political and social study of Great Britain during the twentieth century.

352b France: The Nineteenth Century, 1815-1914 (3) (V)

Prerequisite: Junior standing or consent of instructor. The history of France between the end of the Napoleonic wars and the beginnings of World War One, with emphasis on the political and social struggles to establish a stable form of government.

352c France: The Twentieth Century, 1914-1969 (3) (V)

Prerequisite: Junior standing or consent of instructor. The history of France between the beginning of World War One and the fall of de Gaulle, with emphasis on the political and social struggles to establish a stable form of government, and on the diplomatic and economic struggles to remain a great power in the contemporary world.

353a Modern Germany: To 1917 (3) (F)

Prerequisite: Junior standing or consent of the instructor. The development of modern Germany. Attention will focus on nationalism, unification, industrialization and the coming of the Great War.

353b Modern Germany: Since 1917 (3) (W)

Prerequisite: Junior standing or consent of the instructor.

democracy, totalitarianism and its results.

354 History of Spain (3) (V)

Prerequisite: Junior standing or consent of the instructor. A survey of Spanish history from the fifteenth century to the present, emphasizing its period of imperial greatness and examining the effects of empire on national development.

355a History of Russia to Peter I (1725) (3) (F)

Prerequisite: Junior standing or consent of the instructor. The social-economic, political and cultural development of Russia from pre-Kievan times to 1725. Includes treatment of the rise, fall and importance of the Kiev Russia state. The rise and development of Muscovite Russia and the reforms of Peter the Great.

355b History of Russia, 1700-1918 (3) (W)

Prerequisite: Junior standing or consent of the instructor. The emergence of Russia as a great power, the peak of its development under Catherine II and Alexander I (1796-1825), the reform and revolutionary movements of the 19th century and the revolutions of 1905 and 1917.

355c History of the U.S.S.R. (3) (W)

Prerequisite: Junior standing or consent of the instructor. Political, social and cultural development in Russia from 1917 to the present. Major topics will include: the Revolution of 1917, stabilization of Communist power under Lenin, Stalin's "Great Change," and the organization and testing of the Communist state, post-Stalinist developments.

355d Intellectual History of Russia, 1790-1920 (3) (V)

Prerequisite: Junior standing or consent of the instructor. Philosophical, religious, social and political thought in nineteenth century Russia; development of radical intelligentsia up to and including Lenin.

361 Modern Japan: 1850 to Present (3) (W)

Prerequisite: Junior standing or consent of the instructor. The economic, social and political development of modern Japan.

362 Modern China: 1800 to Present (3) (F&W)

Prerequisite: Junior standing or consent of the instructor. The economic, social and political development of modern China.

371a Latin America to the 1750's (3) (F)

Prerequisite: Junior standing or consent of the instructor. Attention centers on pre-Columbian civilizations, the Spanish Conquest, and the development of social, economic, cultural and

371b Latin America from the 1750's to the 1850's
(3) (W)

Prerequisite: Junior standing or consent of the instructor. An examination of Bourbon efforts at reform, the Wars of Independence, and the problems faced by the new sovereign states.

371c Latin America from the 1850's to the Present (3) (V)

Prerequisite: Junior standing or consent of the instructor. An examination of the continuing struggle for independence with emphasis upon developments in Mexico, Argentina and Brazil.

390 Special Readings (credit arranged) (F&W)

Prerequisite: Consent of the instructor. Independent study through readings, reports and conferences.

399 Quantitative Methods in Historical Research
(3) (F)

Prerequisite: Junior standing or consent of the instructor. This course deals primarily with how one can use quantitative analysis to improve the validity of generalizations and inferences one may draw from various types of historical data. We will explore a number of basic methods for analyzing social and political data, as well as the rationale for using such quantitative methods in historical research.

The department feels that history is an essential component of a liberal arts education.



Mathematical Sciences

Program

The Department of Mathematical Sciences offers work at the undergraduate level leading to the bachelor of arts with a major in mathematics and the bachelor of science in secondary education with a major in mathematics (See School of Education for details concerning nonmathematics requirements). The master of arts in mathematics is also offered.

The Department of Mathematical Sciences is subdivided into four sections: mathematics, probability and statistics, computer science, and mathematics education. Any student desiring additional information should consult the head of the appropriate section.

The specific degrees offered by the department serve a variety of students wishing to major in mathematics. The major in mathematics for the bachelor of arts degree is a flexible program providing a broad introduction to the important branches of mathematics, but enabling the pregraduate student to acquire the needed depth in mathematics to successfully pursue graduate study in mathematics. The bachelor of science in education degree introduces the student to those branches of mathematics which are most relevant to the teaching of secondary school mathematics. A sufficient selection of courses is offered in the evening hours to enable the Evening College student to complete a baccalaureate degree in mathematics, or to meet the mathematics requirement for other baccalaureate degrees.

The Department of Mathematical Sciences offers a wide variety of courses designed to provide a liberal arts education for persons planning to enter professional schools such as medicine or law, and to provide for the university community as a whole those courses which might enrich the liberal arts

working in other areas such as physics, chemistry, the biological sciences, business, or the social sciences.

General Education Requirements

Each mathematics major must satisfy the general education requirements of the University listed on page 32, and the general education requirements of the College of Arts and Sciences listed on page 44, or the requirements of the School of Education, on page 193. The college's foreign language requirement must be met in German, French, or Russian. All courses in mathematics except Mathematics 02 and 03 may be used to meet the university's three-course science and mathematics area requirement (see page 32).

The department's standard analytic geometry and calculus sequence, Mathematics 80, Analytic Geometry and Calculus I, Mathematics 175, Analytic Geometry and Calculus II, and Mathematics 201, Analytic Geometry and Calculus III, is required of all mathematics majors, as well as students majoring in a physical science or engineering. Students needing a course in the methods of the calculus for application to business, or the social or biological sciences may take Mathematics 101, Survey Calculus. Students lacking the prerequisites to these courses will find precalculus courses available: Mathematics 40, Pre-Calculus Mathematics, for those who plan to take the standard calculus sequence, and Mathematics 30, College Algebra, for those planning to enroll in Mathematics 101 or Mathematics 102. The department also offers two remedial high school level courses, Mathematics 02, Fundamentals of Algebra, and Mathematics 03, Trigonometry, for the convenience of the student who arrives on campus with a high school background deficient in mathematics. Mathematics 02 and 03 carry no credit toward any degree.

Other courses or sequences provide options for other groups of students. For example, Math 50, Structure of Mathematical Systems I, and Math 151, Structure of Mathematical

Systems II, are designed to meet the mathematical needs of the prospective elementary school teacher; Math 15, Mathematics: Ideas and Structures, is a terminal course designed to introduce the general liberal arts student to mathematical ideas; while more specialized sequences such as Mathematics 302, Applied Mathematics I; 303, Applied Mathematics II; and 304, Applied Mathematics III, meet the needs of students in physics and in some engineering curricula.

All terminal courses, i.e., those which are not prerequisites for other courses, may be taken by nonmathematics majors on a pass-fail basis. Also, Math 175, Analytic Geometry and Calculus II, and Math 201, Analytic Geometry and Calculus III, may be taken on a pass-fail basis. The following courses may not be taken on a pass-fail basis:

- 02 Fundamentals of Algebra
- 03 Trigonometry
- 30 College Algebra
- 40 Pre-Calculus Mathematics
- 50 Structure of Mathematical Systems I
- 80 Analytic Geometry and Calculus I

The mathematics major may not take mathematics courses on a pass-fail basis, but may elect to take courses from the related-area requirement on pass-fail. Any student who is considering attending graduate school following completion of work on the bachelor's degree should consult with his or her adviser concerning the advisability of taking work on a pass-fail basis.

A general undergraduate adviser in mathematics is available to assist students who are not majoring in mathematics or who have not yet declared a major.

Degree Requirements

Each mathematics major must complete ten mathematics courses with a grade of C or better. The courses shall include:

80 Analytic Geometry and Calculus I
175 Analytic Geometry and Calculus II
201 Analytic Geometry and Calculus III
250 Introduction to Modern Mathematics
302 Applied Mathematics I

or their equivalent. In some instances a student may be prepared to begin with Mathematics 175 or Mathematics 201; any student considering starting with a course in the sequence beyond Mathematics 80 is urged to consult with a member of the Department of Mathematical Sciences before planning a program. Credit for Mathematics 80 will be granted to the student who successfully completes Mathematics 175.

Five additional courses must be chosen as follows: one each from any four of the five blocks listed below, and two courses from any one of the four chosen blocks.

335 Theory of Numbers
340 Introduction to Abstract Algebra I
341 Introduction to Abstract Algebra II

310 Advanced Calculus
311 Advanced Calculus II
316 Functions of a Complex Variable

364 Introduction to Differential Geometry
380 Introduction to Topology

303 Applied Mathematics II
320 Mathematical Statistics I
321 Mathematical Statistics II
323 Numerical Analysis I
324 Numerical Analysis II
327 The Calculus of Variations

345 Linear Algebra
358 Mathematical Logic
362 Projective Geometry
366 Foundations of Geometry
367 Introduction to Non-Euclidean Geometry

A minimum of 12 hours of mathematics courses numbered 250 or above must be completed with a grade of C or better. The student majoring in mathematics must achieve an overall grade point average of 2.0 in all mathematics courses in which he or she receives a grade.

Related Area Requirements

In order to broaden a student's understanding of the sources and uses of mathematics, the department requires study in one or two areas related to mathematics. Specifically, each major must complete all the courses listed in any two of the following groups:

Biology
224 Genetics
226 Genetics Laboratory

Two courses in biology at the 200 level or above, excluding Biology 224 and 226. At least one of the two semesters is to be Biology 321, Advanced Genetics; or Biology 242, Population Biology, and Biology 244, Population Biology Laboratory (counted as one course).

Chemistry
11 Introductory Chemistry I
12 Introductory Chemistry II

231 Physical Chemistry I, and one other 200 level course (or above).

Two of: Mathematics 222, Data Structure; Mathematics 322, Artificial Intelligence; or Business 224, Introduction to Systems

Three undergraduate degrees are offered to serve a variety of students wishing to major in mathematics.



Two of: Economics 351, Mathematical Economics; Economics 365, Economic Statistics and Econometrics; or Economics 366, Econometrics.

Philosophy
160 Formal Logic
250 Philosophy of Science
360 Advanced Formal Logic

Physics
111 Physics: Mechanics and Heat
112 Physics: Electricity, Magnetism, and Optics

221 Mechanics
and one other 200 level course (or above)

Psychology 301, Advanced Statistics and Experimental Design (for B.S. in Secondary Education majors only)

The student should choose two of the groupings above according to his or her own interests, or professional-career objectives. It should be noted that some of the courses listed have prerequisites; the course-offerings section of the discipline in which the courses listed above are taught should be consulted in order to determine precisely how many courses are actually required. The student's adviser will assist the student in the selection of related area courses.

The student who is preparing for graduate study should plan on taking eight or nine courses at the junior-senior level. The department especially recommends that such majors complete the following mathematics courses as part of their program:

310 Advanced Calculus
311 Advanced Calculus II
316 Functions of a Complex Variable
340 Introduction to Abstract Algebra I
341 Introduction to Abstract Algebra II

A member of the mathematics faculty is assigned to each student majoring in mathematics to aid in the selection of an individualized program, and a general undergraduate adviser in the department is available to assist students who are not majoring in mathematics or who have not yet declared a major with their programs. All mathematics majors are urged to consult with their faculty adviser early in planning this program.

Mathematical Sciences Faculty

Deborah Tepper Haimo, Ph.D.
Harvard University chairman, professor
head, mathematics section

Edward Z. Andalafte, Ph.D.
University of Missouri-Columbia associate professor

Raymond Balbes, Ph.D.
University of California, Los Angeles associate
professor

Wayne L. McDaniel, Ph.D.
St. Louis University associate professor

Gerald Peterson, Ph.D.
University of Utah associate professor,
head, computer science section

Alan L. Schwartz, Ph.D.
University of Wisconsin associate professor

Jerrold Siegel, Ph.D.
Cornell University associate professor

Grant V. Welland, Ph.D.
Purdue University associate professor,
head, probability and statistics

Frederick Wilke, Ph.D.
University of Missouri-Columbia associate chairman,
associate professor
head mathematics education section

Alan Candiotti, Ph.D.
Harvard University assistant professor

William Connett, Ph.D.
University of Chicago assistant professor

Richard Friedlander, Ph.D.
University of California, Los Angeles assistant
professor

Rangachary Kannan, Ph.D.
Purdue University assistant professor

Jerome M. Katz, Ph.D.
Yale University assistant professor

Edmund Kelly, Ph.D.
Massachusetts Institute of Technology assistant
professor

Kathleen Aubrey, M.S.
instructor

Michael Avitahl, M.S.
instructor

Thelma Balbes, M.A.
instructor

Elena Eftimiu, M.S.
instructor

Lindy Friedlander, M.S.
instructor

Toni Garrett, M.A.
instructor

Ta-Chean Hsu, M.S.
instructor

Sr. Patricia Kennedy, M.S.
instructor

Jean Kuntz, M.A.
instructor

Mary Kay Levaro, M.S.
instructor

Barbara Matthei, M.A.
instructor

Richard Matthei, M.A.
instructor

Mark Nugent, M.S.
instructor

Sanjiv Rangachari, M.Sc.
instructor

Cynthia Siegel, M.S.
instructor

David Stevens, M.A.
instructor

Patricia Stevens, M.A.
instructor

Mary Ann Smola, M.A.
instructor

James C. Thorpe, M.A.
instructor

Mathematical Sciences Description of Courses

All introductory courses in mathematics, other than Mathematics 02 and 03 require as a prerequisite a satisfactory score on the mathematics portion of the Missouri College Placement Test. The dates on which this test is administered are given in the *Schedule of Courses*.

A minimum grade of "C" shall be required to meet the prerequisite requirement for any course except with permission of the department.

Prerequisites may be waived by consent of department.

02 Fundamentals of Algebra (4) (F&W)

Prerequisite: One year of high school algebra. A review of ninth grade algebra and an introduction to other topics of elementary algebra, including exponents and radicals, linear and quadratic functions and their graphs, systems of equations. No credit toward any degree.

03 Trigonometry (2) (F&W)

Prerequisite: One and one half units of high school algebra or Mathematics 02. This is a remedial course in trigonometry designed for the student who intends to study the calculus and has not had high school trigonometry. It is recommended that this course be taken concurrently with Mathematics 30. No credit toward any degree.

15 Mathematics: Ideas and Structures (3) (V)

Prerequisite: Mathematics 02; or a satisfactory score on the mathematics placement examination. An introduction to the spirit of mathematics and to modern mathematical thought. Course is designed for the student who does not intend to major in mathematics or science.

30 College Algebra (4) (F&W)

Prerequisite: Mathematics 02; or three units of high school mathematics and a satisfactory score on the mathematics placement examination. Topics in algebra and probability, polynomial functions, the binomial theorem, logarithms, exponentials, solutions to systems of equations. Credit not granted for both Mathematics 30 and 40. Mathematics 40 is recommended for mathematics and science majors.

40 Pre-Calculus Mathematics (4) (F&W)

Prerequisite: Mathematics 02; or three units of high school mathematics including one and one-half units of algebra and a satisfactory score on mathematics placement examination. Topics from algebra and trigonometry for the student who plans to take further work in mathematics. Polynomial functions, the binomial theorem, mathematical induction, the logarithmic, exponential, trigonometric and inverse

50 Structure of Mathematical Systems I (3) (F&W)

Prerequisite: 45 hours of college credit and either Mathematics 02 or a satisfactory score on the mathematics placement examination. A study of mathematical systems, elementary logic, natural numbers, sets, construction of the integers. Recommended for elementary education students.

80 Analytic Geometry and Calculus I (5) (F&W)

Prerequisite: Mathematics 40; or a knowledge of trigonometry and either Mathematics 30 or a satisfactory score on the mathematics placement examination. Introduction to analytic geometry, differential calculus and integral calculus. Courses 80, 175 and 210 form a sequence of courses.

101 Survey Calculus (4) (F&W)

Prerequisite: Mathematics 40 or Mathematics 30 or a satisfactory score on the mathematics placement examination. Introduction to plane analytic geometry and study of the basic techniques of the differential and integral calculus with application to various areas. No credit for mathematics majors. Credit not granted for both Mathematics 80 and 101.

102 Finite Mathematics I (4) (F&W)

Prerequisite: Same as for Mathematics 101. Introductory logic and set theory, partitions and counting problems, elementary probability theory, stochastic processes, Markov chains, vectors and matrices, linear programming, and game theory.

151 Structure of Mathematical Systems II (3) (F&W)

Prerequisite: Mathematics 50. A continuation of Mathematics 50 to include a study of the rational and real number systems. An intuitive study of elementary geometry. Introduction to the deductive theory of geometry. Recommended for elementary education students.

175 Analytic Geometry and Calculus II (5) (F&W)

Prerequisite: Mathematics 80. Selected topics from plane analytic geometry and calculus. Mathematics 80, 175 and 201 form a sequence of courses.

201 Analytic Geometry and Calculus III (5) (F&W)

Prerequisite: Mathematics 175. Solid analytic geometry and selected topics in calculus. Mathematics 80, 175, and 201 form a sequence of courses.

203 Finite Mathematics II (3) (V)

Prerequisite: Math 102. A continuation of Math 102. Linear programming and game theory, application of combinatorial mathematics. A student cannot receive

245 Matrix Algebra with Applications (3) (V)

Prerequisite: Math 30 or Math 40. An introduction to matrices and linear algebra with applications. Topics will include operations with matrices, inversion of matrices, solutions of systems of equations, determinants, and eigenvalues.

250 Introduction to Modern Mathematics (3) (F&W)

Prerequisite: Mathematics 201. Set algebra, equivalence relations, partitions, functions, development of algebraic and topological properties of the real numbers.

301 Differential Equations (3) (V)

Prerequisites: Mathematics 250. A theoretical approach to ordinary differential equations intended for the student majoring in mathematics. Existence of solutions of linear differential equations and systems of differential equations. Credit not granted for both Mathematics 301 and Mathematics 302.

302 Applied Mathematics I (3) (F&W)

Prerequisite: Mathematics 201. A course designed for the student who will use differential equations. Emphasis is upon methods of solution. Linear differential equations with constant coefficients, systems of differential equations, power series. Credit not granted for both Mathematics 301 and Mathematics 302.

303 Applied Mathematics II (3) (F)

Prerequisite: Mathematics 301 or Mathematics 302. Topics chosen from Fourier series, special functions, partial differential equations, boundary value problems.

304 Applied Mathematics III (3) (W)

Prerequisite: Mathematics 250 or Mathematics 302. Matrices and characteristic values; vector analysis; analytic functions of a complex variable, Taylor and Laurent series, residues, conformal mapping.

310 Advanced Calculus (3) (F)

Prerequisite: Mathematics 250 or consent of the department. Limits, continuity and differentiability of functions of one and several variables, sequences and series, the Riemann-Stieltjes integral.

311 Advanced Calculus II (3) (W)

Prerequisite: Mathematics 310. Continuation of Mathematics 310.

316 Functions of a Complex Variable (3) (W)

Prerequisite: Math 250 or 302. Complex numbers and their geometrical representation, point sets, analytic functions of a complex variable, complex integration, Taylor and Laurent series, residue theorem, conformal

323 Numerical Analysis I (3) (F&W)

Prerequisite: Mathematics 201 and knowledge of Fortran. Solutions of equations, interpolation and approximation, numerical differentiation and integration, and numerical solution of initial value problems in ordinary differential equations. Selected algorithms will be programmed for solution on computers.

324 Numerical Analysis II (3) (W)

Prerequisite: Mathematics 323. The solution of linear systems by direct and iterative methods, matrix inversion, the evaluation of determinants, and the calculation of eigenvalues and eigenvectors of matrices. Application to boundary value problems in ordinary differential equations. Introduction to the solution of partial differential equations. Selected algorithms will be programmed for solution on computers.

327 The Calculus of Variations (3) (V)

Prerequisite: Mathematics 311. Methods for optimizing functionals and their applications. The Euler-Lagrange condition. Hamilton's principle, two dimensional variational problems and isoperimetric problems. Approximate methods for the solution of variational problems.

335 Theory of Numbers (3) (W)

Prerequisite: Mathematics 250 or consent of department. Properties of the integers, multiplicative functions, congruences, primitive roots, quadratic residues.

340 Introduction to Abstract Algebra I (3) (F)

Prerequisite: Mathematics 250 or consent of the department. Introduction to groups, rings, fields and vector spaces with emphasis on fields.

341 Introduction to Abstract Algebra II (3) (W)

Prerequisite: Mathematics 340 or consent of the department. Continuation of Mathematics 340 with emphasis on linear algebra.

345 Linear Algebra (3) (V)

Prerequisite: Mathematical 250 and 302. Topics selected from vector spaces, bases, linear transformations, matrices, canonical forms, eigenvalues, hermitian and unitary matrices, inner product spaces, quadratic forms.

350 Special Reading (credit arranged) (F&W)

Prerequisite: Mathematics 250 and consent of instructor.

358 Mathematical Logic (3) (V)

Prerequisite: Mathematics 250 or Philosophy 360 or consent of the department. A study of the logic of mathematics by the axiomatic method, with a

restricted predicate calculus emphasizing its application to the foundations of mathematics.

362 Projective Geometry (3) (alt. W)

Prerequisite: Mathematics 250 or consent of the department. Analytic approach to the study of projective spaces. Theorems of Desargues, Pascal and Brianchon. Projective properties of conics.

364 Introduction to Differential Geometry (3) (V)

Prerequisite: Mathematics 250. Geometry of curves and surfaces in Euclidean 3-space. Calculus on a surface. Intrinsic geometry of surfaces.

366 Foundations of Geometry (3) (F)

Prerequisite: Mathematics 250 or consent of department. A development of portions of Euclidean geometry from a selected set of axioms, including a discussion of consistency, independence, categoricity and completeness of the axioms.

367 Introduction to Non-Euclidean Geometry (3) (alt. W)

Prerequisite: Mathematics 250 or consent of the department. A summary of the history of the non-Euclidean geometries and a study of hyperbolic plane geometry.

380 Introduction to Topology (3) (F)

Prerequisite: Mathematics 250 or consent of the department. A study of topological spaces, including the concepts of limit, continuity, connectedness, compactness, etc. Special emphasis placed on, and examples taken from, the space of real numbers.

Computer Science**122 Computers and Programming (3) (F&W)**

Prerequisite: Mathematics 30 or 40 or equivalent. Introduction to machine hardware and software, fundamentals of Fortran, algorithms, matrices and matrix arithmetic, matrix algorithms. Does not count toward a major in mathematics. Credit not granted for both Business 104 and Math 122.

222 Data Structure (3) (W)

Prerequisite: Mathematics 122 or Business 104 and consent of instructor. Algebraic structures including semigroups and groups. Elements of graph theory. Boolean algebra and propositional logic. Linear lists, strings, arrays, and orthogonal lists. Representation of trees and graphs. Storage systems and structures. Searching and sorting techniques. Data structure in programming languages.

322 Programming Languages (3) (F)

Prerequisite: Mathematics 222. Formal definition of programming languages including specification of

allocation, grouping of statements, subroutines, and coroutines. List processing, string manipulation and simulation languages.

325 Theory of Computation (3) (V)

Prerequisite: Upper division standing or consent of the instructor. Finite automata, Turing machines, recursive function theory, Church's thesis, decision problems.

332 Artificial Intelligence (3) (V)

Prerequisite: Mathematics 250, Mathematics 322. Definition of heuristic versus algorithmic methods. Uses of heuristic methods in such areas as game playing, theorem proving, formula manipulation, symbolic differentiation pattern recognition and question answering. Class and individual projects to illustrate basic concepts.

Probability and Statistics**31 Elementary Statistical Methods (3) (V)**

Prerequisite: Math 30 or Math 40. An introduction to the basic tools and elementary methods of statistics, such as testing of hypotheses, analysis of variance, method of least squares, and time series. Does not satisfy the School of Business Administration requirement ordinarily met by Business 131. A student cannot receive credit for both Math 31 and Business 131.

320 Mathematical Statistics I (3) (F)

Prerequisite: Mathematics 201. Introduction to theory of probability and statistics using concepts and methods of the calculus.

321 Mathematical Statistics II (3) (V)

Prerequisite: Mathematics 320. Continuation of Mathematics 320. Continuous sample spaces, stochastic processes, statistical inference and statistical models.

Modern Foreign Languages

Program

The Department of Modern Foreign Languages and Literatures offers course work in French, German, and Spanish leading to the bachelor of arts degree, and a field of concentration in each of these languages for those students seeking the bachelor of science degree in education. In addition, the department offers lower level courses in Italian and Russian and also participates in a cooperative arrangement whereby UMSL students who wish to fulfill the language requirement in Greek, Latin, Hebrew, Portuguese, Chinese, or Japanese may take these courses at neighboring institutions.

Graduates with a major in foreign language may elect to enter the fields of teaching, business, journalism and communication, or government or to continue their work on the graduate level. Majors are urged to take substantial work in other departments and, if possible, to complete a double major. A combination of skills greatly increases the career opportunities of language graduates.

The Department of Modern Foreign Languages and Literatures is proud of the quality of its faculty, foreign language instruction, and the performance of its graduates. To achieve and maintain this quality, the department has a faculty whose members have either native or near-native ability in the foreign languages taught. Each year the department arranges to provide the services of native speaking assistants to enrich the students' language experience on an informal basis. Each of the languages offering a major has an active foreign language club which provides the students the opportunity to meet with each other and their instructors and to practice the language in a casual setting. A library is maintained where books, journals, magazines, records, and other foreign language resources are available to students.

General Education Requirements

Each language major must satisfy the general education requirements of the university listed on page 32, and the general education requirements of the College of Arts and Sciences listed on page 44. Any literature or civilization course offered by the department may be used to meet the humanities requirement.

Courses offered by the department may be taken on a pass-fail basis by nonmajors. Courses taken as a part of the major may not be taken for pass-fail.

Degree Requirements

Students electing to major in the Department of Modern Foreign Languages and Literatures must have completed course 2 in the language selected with a grade of C or better. Any major who receives a grade of D in any course required for the major must repeat that course. All students seeking the A.B. in a foreign language, and who desire a teaching certificate, must meet the departmental requirement of a minimum of 33 hours (excluding Language 1 and 2). The maximum number of hours that may be taken in the major is 45, including Language 1 and 2. In addition, students must take course 264, Curriculum and Methods, and fulfill the professional secondary education requirements of the School of Education. Those students seeking the B.S. degree in education, with a concentration in a foreign language, are required to complete 30 hours of work (excluding credit for Language 1 and 2), of which 12 must be on the 300 level. Students working toward a degree in elementary education, with related work in a foreign language, should consult the School of Education concerning their program. Demonstration of a high level of proficiency may reduce the number of hours required for the major. Native speakers of a foreign language should consult the department concerning appropriate placement.

French

Each major in French must complete the following courses:

- 101 Intermediate French
- 171 French Conversation and Pronunciation or 172 Composition French
- 180 Advanced French
- 200 Advanced Grammar
- 280 French Literature I: Middle Ages to the 18th Century
- 281 French Literature II: 19th and 20th Centuries

The following courses in other departments are strongly recommended: sociology and anthropology (Language and Culture, Grammatical Theory), English (English Literature Survey), German and Spanish (Literature in Translation), history (Modern France), fine arts (Nineteenth and Twentieth Century Art, History of Western Music).

German

Each major in German must complete the following courses:

- 101 Intermediate German
- 102 Readings in German
- 108 Composition and Conversation
- 201 Masterpieces of German Literature
- 202 The German Novelle and Drama
- 208 Intermediate Composition and Conversation
- 210 German Culture and Civilization and four courses on the 300 level including
- 308 Advanced Composition and Conversation
- 399 Seminar

The following courses in other departments are recommended: anthropology (Grammatical Theory), English (Shakespeare: Tragedies and Comedies, Classical Literature in Translation), French and Spanish (Literature in Translation), history (Modern Germany), philosophy (Philosophy and Literature).

Spanish

Each major in Spanish must complete the following courses:

- 101 Intermediate Spanish
- 102 Intermediate Spanish
- 171 Spanish Conversation and Pronunciation or 172 Spanish Composition
- 200 Syntax of the Spanish Language
- 210 Hispanic Culture and Civilization: Spain or 211 Hispanic Culture and Civilization: Latin America

Language majors are urged to take substantial work in other departments and, if possible, to complete a double major.

281 Introduction to Hispanic Literature:
Spanish America
and four courses on the 300 level, one of which must be Spanish 399, Seminar on Hispanic Literature.

The following courses in other departments are strongly recommended: sociology and anthropology (Language and Culture, Grammatical Theory), English (English Literature I, II, American Literature I, II), French and German (Literature in Translation), history (History of Spain, Latin America from the 1750's to the 1850's, Latin America from the 1850's to the Present), political science (Political Systems of South America; Political Systems of Mexico, Central America and the Caribbean), philosophy (Philosophy and Literature, Twentieth Century Philosophy, Philosophy of Language), fine arts (Baroque Art in Holland, Flanders and Spain; Nineteenth and Twentieth Century Art), and music (History of Western Music).



Graduates with a major in foreign language may elect to enter the fields of teaching, business, journalism and communication, government, or to continue their work at the graduate level.



Modern Foreign Languages
Faculty

Ingeborg M. Goessl, Ph.D.
University of Kansas chairman, assistant professor
German

French

Marcus Allen, Ph.D.
University of Pittsburgh associate professor

Fiorenza Di Franco, Ph.D.
Case Western Reserve University visiting assistant
professor

Michael L. Rowland, Ph.D.
University of North Carolina assistant professor

Sonja G. Stary, Ph.D.
University of Cincinnati assistant professor

Ruth Antosh, M.A.
visiting instructor

Alain Diana, D.U.E.L.
assistant

Roger Noel, M.A.
instructor

Dolores Richardson, M.A.
instructor

Barbara L. Sandmel, M.A.
instructor

Gail D. Stark, M.A.
instructor

German

Alfred F. Goessl, Ph.D.
Tulane University associate professor

Robert I. Cloos, Ed.D.
Rutgers University assistant professor

Paul Hoffman, M.A.
assistant professor

Rolf Mueller, Ph.D.
University of Kansas assistant professor

John Antosh, M.A.
instructor

Albert Camigliano, M.A.
instructor

Russian

Lydia Svast, M.A.
instructor

Spanish

Edmund de Chasca, Ph.D.
University of Chicago visiting professor

Enrique Noble, Ph.D.
University of Havana professor

Anna Ashhurst, Ph.D.
University of Pittsburgh associate professor

Francisco Carenas, Ph.D.
University of Valencia associate professor

Luis F. Clay, M.A.
instructor

Julianne Dueber, M.A.
instructor

Nancy Ferrario, M.A.
instructor

Martha Heard, M.A.
instructor

Maria M. Johnson, M.A.
instructor

Zayda M. Jung, M.A.,
instructor

Almeda Lahr, M.A.
instructor

Michael J. Mahler, M.A.
director, Language Laboratories

Modern Foreign Languages
Description of Courses

Chinese

Courses in Chinese are available at Washington University for UMSL students. Consult the Modern Foreign Languages Department for details and obtain the necessary forms in the Registration Office, Room 9, Administration Building.

1 Elementary Chinese (4) (V)

2 Elementary Chinese (4) (V)

French

Prerequisites may be waived by consent of department.

1 Elementary French (5) (F&W)

Emphasis will be placed upon the speaking and understanding of French and upon the acquisition of the fundamentals of grammar and syntax. One hour language laboratory required.

2 Elementary French (5) (F&W)

Prerequisite: French 1 or equivalent. Emphasis will be placed upon the speaking and understanding of French and upon the acquisition of the fundamentals of grammar and syntax. One hour language laboratory required.

30 French for Music Majors (3) (V)

Prerequisite: None. A one semester course designed primarily for music majors. Emphasis will be placed on pronunciation, diction, and reading. This course may not be used to fulfill the language requirement of the College of Arts and Sciences. (This course may not be taken for credit by language majors.)

101 Intermediate French (3) (F&W)

Prerequisite: French 2 or equivalent. Grammar review and cultivation of language skills through the study of moderately difficult prose selections.

103 Intermediate French (3) (F&W)

Prerequisite: French 2 or equivalent. Grammar review and cultivation of language skills through the study of moderately difficult prose selections. Designed primarily for those students intending to continue in French. (Credit is not granted for both 101 and 103.)

110 Modern French Literature in Translation (3) (F)

Prerequisite: Sophomore standing. Reading and discussion of selected works in French literature from the modern period. May be taken to fulfill the humanities requirement. May not count toward the

150 European Literature in Translation: Special Topics (3) (V)

Major figures, works, or movements in the literature of Europe and their relevance to our own age. Topic is announced in advance by the department. Does not count toward major in French. May be taken to fulfill the humanities requirement.

160 Phonetics (3) (F&W)

Prerequisite: French 101 or 103 or consent of instructor. An analytic and practical study of contemporary French sound structure.

171 French Conversation and Pronunciation (3) (F)

Prerequisite: 101 or 103 or equivalent. Emphasis will be placed upon the development of oral skills in French and upon the problems of French pronunciation.

172 French Composition (3) (W)

Prerequisite: 101 or 103 or equivalent. Designed to develop writing skills in French.

180 Advanced French (3) (F)

Prerequisite: 160 or 171 or 172 or equivalent. Development of language skills through reading and discussion of literary texts.

200 Advanced Grammar (3) (W)

Prerequisite: 171 or 172 or equivalent. Problems in grammatical analysis.

210 French Civilization (3) (V)

Prerequisite: French 171 or 172 or equivalent. The culture and civilization of France up to World War I. All reading and classwork in French.

211 French Civilization (3) (V)

Prerequisite: French 171 or 172 or equivalent. The culture and civilization of France from World War I to the present. All reading and classwork in French.

220 Introduction to Linguistics (3) (F&W)

(Same as German 220 and Spanish 220) Prerequisite: French 1 and 2 or equivalent and sophomore standing. The historical development of languages, their description and classification, with emphasis on the practical application of contrastive linguistics in foreign language teaching.

264 Curriculum and Methods of Teaching Foreign Language (3) (F&W)

(Same as Education 264) Prerequisite: Education 163 and junior standing. A study of the scope and sequence of the foreign language courses in the school curriculum with emphasis on the selection and organization of materials and methods of instruction

techniques and research tools of the scholar in the field of foreign languages.

280 French Literature I: Middle Ages to the 18th Century (3) (F)

Prerequisite: French 180 or equivalent. Designed to acquaint the student with the development of French Literature from the Middle Ages to the 18th century. Critical reading of representative texts.

281 French Literature II: 19th and 20th Centuries (3) (W)

Prerequisite: French 180 or equivalent. Designed to acquaint the student with the development of French literature from the 19th century to the present. Critical reading of representative texts.

300 Syntax and Stylistics (3) (V)

Prerequisite: French 200 or equivalent. Advanced theoretical and practical study of Modern French syntax. Analysis of French prose style.

320 Advanced Oral Composition (3) (V)

Prerequisite: French 171. Emphasis will be placed upon the development and refinement of skills in spoken French.

331 Medieval and Renaissance Literature (3) (V)

Prerequisite: French 280 or 281. Critical reading and analysis of representative works of the period in modernized French versions.

341 Seventeenth Century French Theatre (3) (V)

Prerequisite: French 280 or 281. Critical readings of selected plays by Corneille, Moliere, Racine and other dramatists of the seventeenth century.

342 Seventeenth Century French Prose and Poetry (3) (V)

Prerequisite: French 280 or 281. A critical study of representative poets and prose writers including novelists and philosophers.

353 Eighteenth Century French Literature (3) (Alt. F)

Prerequisite: French 280 or 281. The philosophic movement. Selected works from Montesquieu, Voltaire, Diderot and Rousseau.

354 Eighteenth Century French Theatre and Novel (3) (Alt. F not 74)

Prerequisite: French 280 or 281. Critical reading and discussion of representative novels and plays of the eighteenth century.

362 Nineteenth Century French Novel (3) (Alt. F not 74)

Discussion of realism and naturalism.

365 Modern French Poetry (3) (Alt F)

Prerequisite: French 280 or 281. A study of French poetry in the 19th and 20th centuries through critical readings of selected works by major poets.

371 Twentieth Century French Novel (3) (Alt W not 75)

Prerequisite: French 280 or 281. A study of selected works by the principal novelists of the modern period.

375 Modern French Theatre (3) (Alt W)

Prerequisite: French 280 or 281. A study of French drama in the 19th and 20th centuries through critical study of selected works by major dramatists.

390 Special Readings (credit arranged) (V)

Prerequisite: Consent of Instructor. Independent study through readings, reports and conferences.

German

1 Elementary German (5) (F&W)

Emphasis will be placed upon the speaking and understanding of German and upon the acquisition of the fundamentals of grammar and syntax. One hour language laboratory required.

2 Elementary German (5) (F&W)

Prerequisite: German 1 or equivalent. Emphasis will be placed upon the speaking and understanding of German and upon the acquisition of the fundamentals of grammar and syntax. One hour language laboratory required.

10 German for Music Majors (3)

Prerequisite: None. A one semester course designed primarily for music majors. Emphasis will be placed on pronunciation, diction and reading. This course may not be used to fulfill the language requirement of the College of Arts and Sciences. (This course may not be taken for credit by language majors).

100 Scientific German (3) (F&W)

Prerequisite: German 2 or equivalent. Reading of selected German texts in the natural and social sciences. Designed primarily for majors in these areas.

101 Intermediate German (3) (F&W)

Prerequisite: German 2 or equivalent. Grammar review and cultivation of language skills through the study of moderately difficult prose selections.

102 Readings in German (3) (F&W)

Prerequisite: German 101 or equivalent. Further development of language skills through readings and

108 Composition and Conversation (3) (F&W)

Prerequisite: German 101 or equivalent. Emphasis will be placed on speaking and writing German. May be taken concurrently with German 102.

110 Masterpieces of German Literature in Translation (3) (V)

Prerequisite: Sophomore standing. Representative readings in German literature from the beginnings to the present. Emphasis to be placed upon German literature in the general context of European culture. May not taken to fulfill Humanities requirement. Not open to German majors.

150 European Literature in Translation: Special Topics (3) (V)

Major figures, works, or movements in the literature of Europe and their relevance to our own age. Topic announced in advance by the department. Does not count toward major in German. May be taken to fulfill the humanities requirement.

201 Masterpieces of German Literature (3) (F)

Prerequisite: Two years of college German or equivalent. Introduction to German Literature. Readings and critical analysis of selected works of German literature.

202 The German Novelle and Drama (3) (W)

Prerequisite: German 201 or equivalent. Reading and critical analysis of selected German *Novellen* and dramas.

208 Intermediate Composition and Conversation (3) (W)

Prerequisite: German 108 or equivalent. Continuation of German 108. Emphasis on speaking and writing German.

210 German Culture and Civilization (3) (F)

Prerequisite: German 102 or equivalent. A survey of the development of German culture and civilization. All reading and classwork in German.

220 Introduction to Linguistics (3) (F&W)

(Same as French 220 and Spanish 220) Prerequisite: German 1 and 2 or equivalent and sophomore standing. The historical development of languages, their description and classification, with emphasis on the practical application of contrastive linguistics in foreign language teaching.

284 Curriculum and Methods of Teaching Foreign Languages (3) (F&W)

(Same as Education 264) Prerequisite: Education 163, Junior standing. A study of the scope and sequence of the foreign language courses in the school curriculum with emphasis on the selection and

and evaluation. Attention is also directed toward the techniques and research tools of the scholar in the field of foreign languages.

308 Advanced Composition and Conversation (3) (V)

Prerequisite: German 208 or equivalent. Continuation of German 208. Designed to develop accuracy and fluency of expression in German.

315 German Classicism and Romanticism (3) (V)

Prerequisite: German 201 and one other 200 level course in German. Representative writers of the classical and romantic periods of German literature, including works by Lessing, Goethe, Kleist and E.T.A. Hoffmann.

320 German Realism and Naturalism (3) (V)

Prerequisite: German 201 and one other 200 level course in German. Representative writers of realism and naturalism in German literature, including works of Grillparzer, Hebbel, Stifter, Keller and Hauptmann.

345 Modern German Literature (3) (V)

Prerequisite: German 201 and one other 200 level course in German. Representative works from modern German literature.

390 Special Readings (credit arranged) (V)

Prerequisite: Consent of Instructor. Independent study through readings, reports and conferences.

397 Survey of German Literature Part I (3) (V)

Prerequisite: One other German literature course on the 300 level. Special emphasis on the summary and synthesis of trends and characteristics of major periods in German literature considered in the general context of European culture.

398 Survey of German Literature Part II (3) (V)

Prerequisite: One other German literature course on the 300 level. Special emphasis on the summary and synthesis of trends and characteristics of major periods in German literature considered in the general context of European culture.

399 German Seminar (3) (W)

Prerequisite: Senior standing and two 300 level courses. Required of all German majors. Topic to be selected by instructor.

Greek

Courses in Greek are available at Washington University for UMSL students. Consult the Modern Foreign Languages Department for details and obtain the necessary forms from the Registration office,

1 Elementary Greek (4) (V)
Fundamentals of grammar and syntax, for students with no previous acquaintance with the language.

2 Elementary Greek (4) (V)
Prerequisite: Greek 1 or equivalent. A continuation of Greek 1. Completion of the survey of grammar and syntax, accompanied by the reading of a short major text, usually a dialogue by Plato or a book of the New Testament.

Hebrew

Courses in Hebrew are available at Washington University for UMSL students. Consult the Modern Foreign Languages Department for details and obtain the necessary forms from the Registration Office, Room 9, Administration Building.

1 Elementary Hebrew (4) (V)

2 Elementary Hebrew (4) (V)

Italian

1 Elementary Italian (5) (F)
Fundamentals of Italian grammar, pronunciation and diction for students with no previous acquaintance with the language. One hour laboratory required.

2 Elementary Italian (5) (W)
Prerequisite: Italian 1 or equivalent. Continuation of grammar and conversation with introductory readings centering on Italian contributions to art, literature and music. One hour laboratory required.

10 Italian for music majors (3) (V)
Prerequisites: None. A one semester course designed primarily for music majors. Emphasis will be placed on pronunciation, diction and reading. This course may not be used to fulfill the language requirement of the College of Arts and Sciences. (This course may not be taken for credit by language majors.)

101 Intermediate Italian (3) (F&W)
Prerequisite: Italian 2 or equivalent. Grammar review and cultivation of language skills through the study of moderately difficult prose selections.

190 Special Readings (credit arranged)
Prerequisites: Italian 101 or equivalent. Readings on literary topics mutually acceptable to student and instructor.

Japanese

Courses in Japanese are available at Washington

the necessary forms in the Registration Office, Room 9, Administration Building.

1 Elementary Japanese (4) (V)

2 Elementary Japanese (4) (V)

Latin

Courses in Latin are available at Washington University for UMSL students. Consult the Modern Foreign Languages Department for details and obtain the necessary forms in the Registration Office, Room 9, Administration Building.

1 Elementary Latin (4) (V)
Fundamentals of grammar and syntax, for students with no previous acquaintance with the language.

2 Elementary Latin (4) (V)
Prerequisite: Latin 1 or equivalent. A continuation of Latin 1. Completion of the survey of grammar and syntax, accompanied by the reading of a short major text or texts.

100 Medieval Latin and Paleography (3) (V)
Prerequisite: An elementary knowledge of classical Latin. Medieval Latin grammar, acquired through the study of medieval tracts in manuscript.

Portuguese

Courses in Portuguese are available at Saint Louis University for UMSL students. Consult the Modern Foreign Languages Department for details and obtain the necessary forms in the Registration Office, Room 9, Administration Building.

1 Elementary Portuguese (4) (V)

2 Elementary Portuguese (4) (V)

Russian

1 Elementary Russian (5) (F&W)
Emphasis will be placed upon the speaking and understanding of Russian and upon the acquisition of the fundamentals of grammar and syntax. Five hours of class and one hour language laboratory.

2 Elementary Russian (5) (F&W)
Prerequisite: Russian 1 or equivalent. Emphasis will be placed upon the speaking and understanding of Russian and upon the acquisition of the fundamentals of grammar and syntax. Five hours of class and one hour language laboratory required.

101 Intermediate Russian (3) (V)

reading of selected Russian texts in the natural and social sciences. Designed primarily for majors in these areas.

101 Intermediate Russian (3) (F&W)
Prerequisite: Russian 2 or equivalent. Further presentation of the structure of Russian; development of oral and aural skills; elementary composition; readings of simplified texts.

102 Intermediate Russian (3) (V)
Prerequisite: Russian 101 or equivalent. Further development of language skills through the reading and discussion of literary texts. May be taken concurrently with 108 after consultation with instructor.

108 Oral and Written Composition (3) (V)
Prerequisite: Russian 102 or equivalent. Emphasis will be placed upon the development of oral and written skills. May be taken concurrently with instructor.

110 Russian Literature in Translation (3) (V)
Reading of representative works drawn from nineteenth century Russian literature. Course will focus upon works of Pushkin, Lemontov, Gogol and Turgenev. Lectures and discussion. May be taken to fulfill humanities requirement.

112 Twentieth Century Russian Soviet Literature in Translation (3) (V)
Reading and discussion of the most representative writings from Gorki to Pasternak. May be taken to fulfill humanities requirement.

190 Special Readings (credit arranged) (V)
Prerequisite: Russian 101 or equivalent. Readings on literary topics mutually acceptable to student and instructor.

200 Syntax of the Russian Language (3) (V)
Prerequisite: Russian 108 or equivalent. Synchronic analysis of the phonemic, morphological, syntactic and semantic system of present-day Russian; dialectal variations.

Spanish

1 Elementary Spanish (5) (F&W)
Emphasis will be placed upon the speaking and understanding of Spanish and upon the acquisition of the fundamentals of grammar and syntax. One hour language laboratory required.

2 Elementary Spanish (5) (F&W)
Prerequisite: Spanish 1 or equivalent. Emphasis will be placed upon the speaking and understanding of

of grammar and syntax. One hour language laboratory required.

101 Intermediate Spanish (3) (F&W)
Prerequisite: Spanish 2 or equivalent. Grammar review and cultivation of language skills through the study of selected modern works.

102 Intermediate Spanish (3) (F&W)
Prerequisite: Spanish 101 or equivalent. Further development of language skills through the reading and discussion of literary texts. May be taken concurrently with Spanish 171 after consultation with instructor.

103 Intermediate Spanish (3) (F&W)
Prerequisite: Spanish 2 or equivalent. Accelerated grammar review and cultivation of language skills through the study of selected modern works. Designed primarily for those students intending to major in Spanish. Credit is not granted for both 101 and 103.

110 Spanish Literature in Translation (3) (V)
Prerequisite: Sophomore standing. Lectures on the literature and culture of Spain from the Middle Ages to the contemporary period. Reading and discussion of works of representative Spanish writers: Cervantes, Calderón, Galdós, Unamuno, García Lorca, Buero Vallejo and others. May be taken to fulfill humanities requirement. Not open to Spanish majors.

111 Spanish American Literature in Translation (3) (V)
Prerequisite: Sophomore standing. Lectures on the literature and culture of Spanish America. Reading and discussion of works of representative poets, novelists and essayists of the contemporary period. May be taken to fulfill humanities requirement. Not open to Spanish majors.

150 European Literature in Translation: Special Topics (3) (V)
Majors figures, works, or movements in the literature of Europe and their relevance to our own age. Topic is announced in advance by the department. Does not count toward major in Spanish. May be taken to fulfill the humanities requirement.

171 Spanish Conversation and Pronunciation (3) (F)
Prerequisite: Spanish 101 or equivalent. Emphasis will be placed upon the development of oral skills in Spanish and upon the problems of Spanish pronunciation and intonation. May be taken concurrently with Spanish 101 after consultation with

172 Spanish Composition (3)

Prerequisite: Spanish 101 or equivalent. Emphasis in developing the capacity and the ability to write in Spanish. May be taken concurrently with Spanish 102 after consultation with instructor.

200 Syntax of the Spanish Language (3) (W)

Prerequisite: Spanish 171, 172, or equivalent. Study of the syntactical and morphological characteristics of the Spanish language as seen in representative selections from Hispanic literature. Designed primarily for students majoring in Spanish. May be taken concurrently with any 200 level course.

210 Hispanic Culture and Civilization: Spain (3)

(F)
Prerequisite: Spanish 102 or equivalent. The development of Spanish peninsula civilization from its Romantic beginnings to the present.

211 Hispanic Culture and Civilization: Spanish America (3) (W)

Prerequisite: Spanish 102 or equivalent. The development of the cultures and civilization of the Spanish-speaking nations of the Western hemisphere.

220 Introduction to Linguistics (3) (F&W)

(Same as French 220 and German 220) Prerequisite: Spanish 1 and 2 or equivalent and sophomore standing. The historical development of languages, their description and classification, with emphasis on the practical application of contrasting linguistics in foreign language teaching.

264 Curriculum and Methods of Teaching Foreign Languages (3) (F&W)

(Same as Education 264) Prerequisite: Education 163, Spanish 200, 201, 202. A study of the scope and sequence of the foreign language courses in the school curriculum, with emphasis on the selection and organization of materials and methods of instruction and evaluation. Attention is also directed toward the techniques and research tools of the scholar in the field of foreign languages.

280 Introduction to Hispanic Literature: Spain (3)

(F)
Prerequisite: Spanish 102. Study of selected texts of Spanish writers from the Middle Ages to the present and the historical, cultural and political factors which influence their writings. Required for Spanish majors.

281 Introduction to Hispanic Literature: Spanish America (3) (W)

Prerequisite: Spanish 102. Study of selected texts of Spanish American writers from the Colonial period to

factors which influenced their writings. Required for Spanish majors.

310 Spanish Literature from 1898 to 1939 (3) (Alt F not 75)

Prerequisite: Spanish 280. A study of cultural and literary characteristics of the period. Emphasis on leading novelists, poets, essayists and dramatics.

315 Spanish Literature from 1939 to the Present (3) (Alt F incl 75)

Prerequisite: Spanish 280. A study of cultural and literary developments since the Spanish Civil War. Emphasis on leading novelists and dramatists.

320 Realism and Naturalism in the XIXth Century Spanish Novel (3) (V)

Prerequisite: 280. A study of the culture and literature of Spain in the XIXth century with emphasis on the leading novelists of this epoch (Galdós, Clarín, Pardo Bazán, Blasco-Ibáñez).

321 Spanish Poetry and Drama of the XIXth Century (3) (V)

Prerequisite: 280. A study of the culture and literature of Spain in the XIXth century with emphasis on the leading poets (Espronceda, Bécquer) and playwrights (Zorrilla, Duque de Rivas).

325 Poetry and Drama of the Golden Age (3) (Alt W)

Prerequisite: Spanish 280. Selective readings from the drama of Lope de Vega, Tirso de Molina, Ruiz de Alarcón, Calderon de la Barca and from the poetry of Garcilaso, Fray Luis de León, San Juan de la Cruz, Góngora, Lope de Vega, Quevedo.

330 Cervantes (3) (V)

Prerequisite: Spanish 280. A study of Don Quixote in relation with author's life and with the cultural background of the Spanish Golden Age. Independent reading of other works of Cervantes.

335 Masterpieces of Spanish Medieval & Renaissance Literature (3) (Alt F incl 74)

Prerequisite: Spanish 280. Designed to acquaint students with the cultural background of Medieval and Renaissance Spanish traditions. Critical reading and discussion of representative works of these periods: Poema del Cid; El Conde Lucanor; Libro de Buen Amor; El Romancero; La Celestina; the picaresque novel, and Don Quixote.

340 Spanish American Literature of the XIXth Century (3) (Alt W)

Prerequisite: Spanish 281. A study of the culture and literature of Spanish America in the nineteenth century with emphasis on the leading novelists and

341 Modernismo (3) (F)

Prerequisite: Spanish 281. The genesis, development and influence of this literary movement in Spanish American letters with emphasis on modernista poetry and prose.

345 Spanish American Literature of the Twentieth Century (3) (V)

Prerequisite: Spanish 281. A study of the leading Spanish American poets, essayists and novelists of this period as interpreters of contemporary man's dilemma and the "pathos" and "ethos" of their culture.

351 Spanish American Fiction of the 20th Century (3) (V)

Prerequisite: Spanish 281. The role of prose fiction in Spanish American literary and cultural history from World War I to the present.

360 Spanish American Poetry from Modernismo to the present (3) (V)

Prerequisite: Spanish 281. A study of poetry and its role in the literary and cultural history of Spanish American society from Modernismo to the present.

390 Special Readings (credit arranged) (V)

Prerequisite: Consent of Instructor. Independent study through readings, reports and conferences.

399 Seminar on Hispanic Literature (3) (W)

Required of major students in the senior year. Subject to be announced every year by the instructor in charge of the seminar. Senior standing required.

Philosophy

Program

The Department of Philosophy offers three plans of study leading to the bachelor of arts degree with a major in philosophy. One of these plans is designed to accommodate students who are seeking a general liberal arts education, whether as their ultimate academic objective or as a preparation for a professional school, such as law. A second is designed to enable students to achieve a double major in philosophy and some other discipline. The third program prepares students to enter graduate school in philosophy.

All of these programs offer complementary approaches. A balanced concentration in philosophy is achieved through courses in the techniques of logical analysis, the study of philosophical classics, and the examination of selected problems.

The department has a strong belief in the importance of a liberal arts education for all students and a commitment to the continuation of this tradition. Since philosophy has always played a central role in this tradition, the department has defined its aims in terms of its contribution to a liberal arts education at UMSL. The department aims to make available to all students an exposure to philosophy as an aid to understanding and critically evaluating the conceptual bases of their culture; to provide to those who seek it a grasp of philosophy which is a part of the breadth necessary to a liberal arts education; to offer to students in a variety of disciplines - art, education, history, and the natural and social sciences - a view of the philosophic problems raised in and by their disciplines; to provide a grounding in philosophy for those students going into professional schools of all sorts and for students going into graduate schools in other disciplines in the humanities and the sciences; and to prepare for graduate school those students desiring to work

In keeping with these aims, the department has designed a program which will accommodate students at all levels and which will meet a variety of interests. A number of courses are taught without prerequisites which deal with current issues or with traditional problems. These are designed to make available to the student some training in the conceptual approaches which have been developed in philosophy for confronting a variety of types of problems. In addition, the department offers a number of courses designed to be of interest to students majoring in other fields or interested in the intellectual climate of particular periods. In all of these courses, each student is encouraged to engage in discussion, to bring his or her interests and expertise into play in the activity of philosophy.

The faculty of the department of philosophy comprises a cross-section of the major schools and interests in philosophy in America. While the department places some emphasis on the Anglo-American tradition of analysis and logic, the Continental schools of phenomenology and existentialism are also represented, as are the Marxist and the Asian philosophic traditions. From this diversity, the department has derived a program of courses which complement and interact with one another.

To enable a student to take advantage of the diversity of offerings in the department, a booklet is issued each semester, prior to pre-registration. In it, each instructor provides a description of the topics which will be dealt with in each of the courses during the next semester and attempts to indicate the proposed approach and the areas for which his or her course may be of interest.

The department does not regularly assign advisers but each major is encouraged to select some member of the department who

A number of philosophy courses are designed for students majoring in other fields interested in the intellectual climate of particular periods.

General Education Requirements

Students majoring in philosophy must satisfy the general education requirements of the university listed on page 32 and the general education requirements of the College of Arts and Sciences listed on page 44.

Students may take any course in philosophy to satisfy the university's humanities area requirement. The course in Asian philosophy also satisfies the college requirement for a course that is not Euro-American.

All courses in philosophy may be taken on pass-fail basis but no philosophy course taken on this basis may be counted toward a major in philosophy.

An exposure to philosophy is an aid to understanding and critically evaluating the conceptual basis of culture.

Degree Requirements

Each student with a major in philosophy is required to complete one of the following programs. An entering major should discuss his or her objectives with an adviser at their first meeting for guidance into the appropriate program. However, the various programs overlap in such a way that it is usually possible to change from one to another as late as the beginning of the senior year. Indeed, in so far as it is compatible with his or her interests and objectives, each student is encouraged to view the first program as a pattern for course selection.

All of these programs share the requirement that at least 30 hours of philosophy be completed and that no more than 45 hours in philosophy will be counted toward a degree. No philosophy courses taken on a pass-fail basis may be used to fulfill this requirement.

Program One

This is designed to prepare a student to undertake graduate work in philosophy. It requires, among the basic 30 hours:

Philosophy 160, Formal Logic

At least three courses in the history of philosophy (181, 182, 183, 184, 185, 210, 301, 302, 305, 306, 307, 308, and 370), representing at least two different historical periods (as defined by the 181-185 sequence), at least one of which must be at the 300 level.

At least one advanced course in aesthetics, social philosophy, or ethics (225, 230, 235, 265, and 285), and at least two courses in philosophy of science, epistemology, or metaphysics (250, 255, 270, 278, 280, and 281). When appropriate, 380 and 390 may be used as courses satisfying one of these requirements.

Because Greek, Latin, French, and German are the major languages in which philosophy has been done in the West, students in this program should satisfy the foreign language requirement with one of these languages. Another language may be substituted only when the department decides that it is appropriate for a well articulated set of objectives which the student presents.

Program Two

This less restrictive program is intended for a general liberal arts student or a student whose special interest, such as prelaw preparation, does not fall clearly into any one traditional academic department. It requires:

Philosophy 160, Formal Logic

At least two courses in the history of philosophy (as listed in Program One).

At least 15 hours at the 200 level or above.

Program Three

This program is open only to those seeking a double major in philosophy and some other discipline. It is the least restrictive, for the only requirements are:

Philosophy 60, Logic and Language or 160, Formal Logic

At least 12 hours at the 200 level or higher.

With the consent of the department, up to six of the remaining 15 hours in Program Three may be replaced by philosophically relevant courses from other departments. The courses acceptable for replacement will depend upon the other major of the student. Some examples are: for a student whose other major is a science, the history of that science; for a student whose other major is literature, an advanced course in linguistics or in the works of a philosophically inclined

author (e.g. Milton, Melville, Goethe); for a student whose other major is mathematics, mathematical logic.

With the consent of the department, qualified majors in any program may earn departmental honors by completing at least six hours and not more than nine hours of Philosophy 291 (Senior Thesis), submitting an acceptable thesis before the end of the senior year, and passing an oral examination based on the subject of the thesis. In such cases, the 30 hours required for the major will include the credit earned in Philosophy 291.

Related Area Requirements

Because of the interaction of philosophy with a number of other disciplines, it is recommended that majors acquire a familiarity with some other field above the introductory level. This recommendation will, of course, be satisfied automatically by majors in Program Three and, to a lesser extent, by those in Program Two. Majors planning to go on to graduate school in philosophy should especially resist the temptation to become totally involved in the course offerings in philosophy, to the detriment of the breadth of their education.

Philosophy Faculty

Ronald Munson, Ph.D.
Columbia University chairman, associate professor

Edward B. Costello, Ph.D.
Northwestern University associate professor

James F. Doyle, Ph.D.
Yale University associate professor

Peter Fuss, Ph.D.
Harvard University associate professor

Robert M. Gordon, Ph.D.
Columbia University associate professor

John E. Clifford, Ph.D.
University of California, Los Angeles assistant professor

David A. Conway, Ph.D.
Princeton University assistant professor

Paul R. Gomberg, Ph.D.
Harvard University assistant professor

Daniel L. Lehocny, Ph.D.
University of Wisconsin visiting assistant professor

Stephen E. Norris, Ph.D.
University of Pittsburgh assistant professor

Henry L. Shapiro, Ph.D.
Columbia University assistant professor

James H. Walters, Ph.D.
University of Wisconsin assistant professor

David J. Griesedieck, M.A.
Princeton University instructor

Will C. Harris, B. Phil.
Oxford University visiting instructor

Philosophy Description of Courses

Prerequisites may be waived by consent of department.

50 Major Questions in Philosophy (3) (F&W)
A study and discussion of representative topics in philosophy such as free will and determinism, concepts of mind and body, the basis of value judgments, knowledge and belief, and the possibility of constructing a world view.

60 Logic and Language (3) (F&W)
An introduction to the language and logical structure of arguments, the principles of sound reasoning, and application of these principles in a variety of contexts.

75 Approaches to Ethics (3) (F&W)
A study and discussion of representative topics in moral philosophy such as moral skepticism, moral objectivity, theories of obligation and value, evaluation of social institutions and the relation between morality and science. Traditional and contemporary writers will be considered.

85 Philosophy of Religion (3) (F&W)
A philosophical investigation of such problems as the nature of religious faith and experience, the relation of faith and reason, alternative concepts of deity and the problem of evil.

90 Freshman Seminar (3) (F&W)
Prerequisite: Freshman standing and consent of instructor. Topics to be announced. Weekly seminars supplemented by individual conferences. Limited to 12 students.

105 Philosophy and Literature (3) (F or W)
Freshman admitted by consent of department. Critical reading and discussion of selected literary works in terms of the philosophical problems they present.

150 Philosophy and Current Issues (3)
A careful examination of such current social controversies as women's liberation, the ethics of abortion, public accountability of holders of high offices, and the subtler forms of racism and other prejudices. Although there is no formal prerequisite, it is recommended that students have taken, or be concurrently enrolled in, at least one other philosophy course.

160 Formal Logic (3) (F&W)
An introductory study of logical truth and deductive inference, with emphasis on the development and mastery of a formal system.

170 Asian Philosophy (3) (F&W)

181 Ancient Philosophy (3) (V)
Freshman admitted by consent of department. The principle philosophical doctrines of the ancient world, with special emphasis on the philosophies of Plato and Aristotle. Although there is no formal prerequisite, it is recommended that students have taken at least one other philosophy course, especially Philosophy 50 or its equivalent.

182 Medieval Philosophy (3) (Alt. W)
A critical study of the important philosophies of the period from Augustine to the Renaissance. Although there is no formal prerequisite, it is recommended that students have taken at least one other philosophy course, especially Philosophy 50 or its equivalent.

183 Early Modern Philosophy (3) (Alt. F)
Principal figures in the development of rationalism, empiricism and skepticism in early modern Europe, from Descartes through Hume. Although there is no formal prerequisite, it is recommended that students have taken at least one other philosophy course, especially Philosophy 50 or its equivalent.

184 Kant and 19th Century Philosophy (3) (Alt. F)
A study of Kant and such major 19th century figures as Hegel and Nietzsche, Mill and Pierce. Although there is no formal prerequisite, it is recommended that students have taken at least one other philosophy course, especially Philosophy 50 or its equivalent.

185 Twentieth Century Philosophy (3) (Alt. W)
Representative topics in contemporary philosophy, with readings selected from pragmatism, logical positivism, linguistic analysis and existentialism. Although there is no formal prerequisite, it is recommended that students have taken at least one other philosophy course, especially Philosophy 50 or its equivalent.

210 American Philosophy (3)
Prerequisite: Six hours of philosophy or consent of instructor. A study of selected American philosophers.

220 Philosophical Issues in Education (3)
A critical study and discussion of selected topics in education, including the distinctive features of education as an activity and achievement, concepts of teaching and learning, relations between education and values and the functions of a university.

225 Philosophy of Art (3) (Alt. F)
A study of issues concerning the definition of art, meaning and truth in the arts, aesthetic experience and criticism.

230 Social and Political Philosophy (3) (Alt. F)
An analysis of some fundamental concepts and

social and political organization.

235 Classical Ethical Theories (3) (Alt. F)
Significant contributions to moral philosophy, from Plato and Aristotle to Bentham and Mill.

240 Philosophy of History (3) (V)
Discussion and analysis of some philosophical problems raised by historical inquiry such as subjectivity, relativism, the role of value judgments and the nature of historical explanation.

245 Existentialism and Phenomenology (3) (V)
A study of some major representatives of these schools from Kierkegaard to the present.

250 Philosophy of Science (3) (F)
An examination of logical and methodological problems, related to the sciences, including the structure of scientific explanations, laws and theories; methods of concept formation; and confirmation and the problem of induction.

255 Philosophy of Social Science (3) (V)
A detailed analysis of issues raised by the social sciences, including the logical characterization of explanations, predictions, laws and theories; types of reductionism; objectivity, values; and the empirical basis of the social sciences.

260 Logical Explorations (3) (Alt. W)
Prerequisite: Philosophy 160. A variable content course in which techniques of modern logic are used to explore one or more of the following topics: modal logic, the logic of decision and action, value theory and decision analysis, induction and inductive logic, the logic of knowledge and belief, system construction and contemporary logical theory. The topic will be announced prior to registration. This course may be repeated for credit on approval by the department.

265 Philosophy of Law (3) (Alt. W)
An examination of typical problems raised by law, including the basis of legal obligations and rights, relations between law and morality, the logic of legal reasoning and the justification for punishment.

269 The Marxist Heritage (3) (W)
(Same as Political Science 269)
A study of Marx and leading Marxists, designed to evaluate their influence on recent political, economic, and social thought and institutions.

270 Philosophy of Language (3) (V)
A study of the nature and structure of language and its relationship to selected philosophical problems. Included will be such topics as ordinary language

century linguistics, prospects for semantic theory, and a discussion of traditional problems of meaning, reference and synonymy.

278 Philosophy of Mind (3) (Alt. F)

Prerequisite: Six hours of philosophy or consent of instructor. A study of concepts and problems in the philosophy of mind such as the identity theory, minds and machines, thinking, will emotion, action, and intention.

280 Theories of Knowledge (3) (Alt. F)

Prerequisite: Six hours of philosophy or consent of instructor. An examination of concepts and problems involved in the characterization of knowledge. Specific topics will vary, but will usually include knowledge, belief, skepticism, evidence, certainty, perception, truth and necessity.

281 Metaphysics (3) (Alt. W)

Prerequisite: Six hours of philosophy or consent of instructor. An examination of selected metaphysical topics such as substance, universals, causality, necessity, space and time, free will, being and identity.

283 Problems in Philosophical Theology (3) (V)

Prerequisite: Six hours of philosophy or consent of instructor. An intensive study of problems arising out of traditional and contemporary philosophical theology.

285 Recent Ethical Theory (3) (V)

Prerequisite: Six hours of philosophy or consent of instructor. A study of major contributions to twentieth century ethics, including works by such writers as Moore, Dewey, Ross, Stevenson, Hare and Rawls.

291 Senior Thesis (3-6) (F&W)

Prerequisite: Consent of department. Directed individual research for qualified senior majors. At least six hours are required for departmental honors in philosophy. May be repeated, but no more than nine hours may be credited toward a degree.

301 Plato (3) (W)

Prerequisite: Six hours of philosophy or consent of instructor. A study of selected Platonic dialogues.

302 Aristotle (3) (Alt. W)

Prerequisite: Six hours of philosophy or consent of instructor. A selective study of Aristotle's major works.

305 The Rationalists (3) (Alt. F)

Prerequisite: Six hours of philosophy or consent of instructor. An examination of the philosophies of such

306 The British Empiricists (3) (Alt. W)

Prerequisite: Six hours of philosophy or consent of instructor. An examination of the philosophies of such major figures as Locke, Berkeley and Hume.

307 Kant (3) (Alt. W)

Prerequisite: Six hours of philosophy or consent of instructor. A systematic study of the *Critique of Pure Reason*.

308 Hegel (3) (V)

Prerequisite: Six hours of philosophy or consent of instructor. A critical study of the writing and influence of Hegel.

350 Special Readings (credit arranged) (F&W)

Prerequisite: Consent of instructor. Independent study through readings, reports and conferences.

360 Advanced Formal Logic (3) (V)

Prerequisite: Philosophy 160 or consent of the instructor. Rigorous study of major developments in contemporary logic. Emphasis is given to theoretical problems and some attention devoted to philosophical issues arising from logic.

370 Significant Figures in Philosophy (3) (V)

Prerequisite: Six hours of philosophy or consent of instructor. A critical study of the work of an important philosopher. The philosopher to be considered will be announced prior to registration. This course may be repeated for credit on approval by the department.

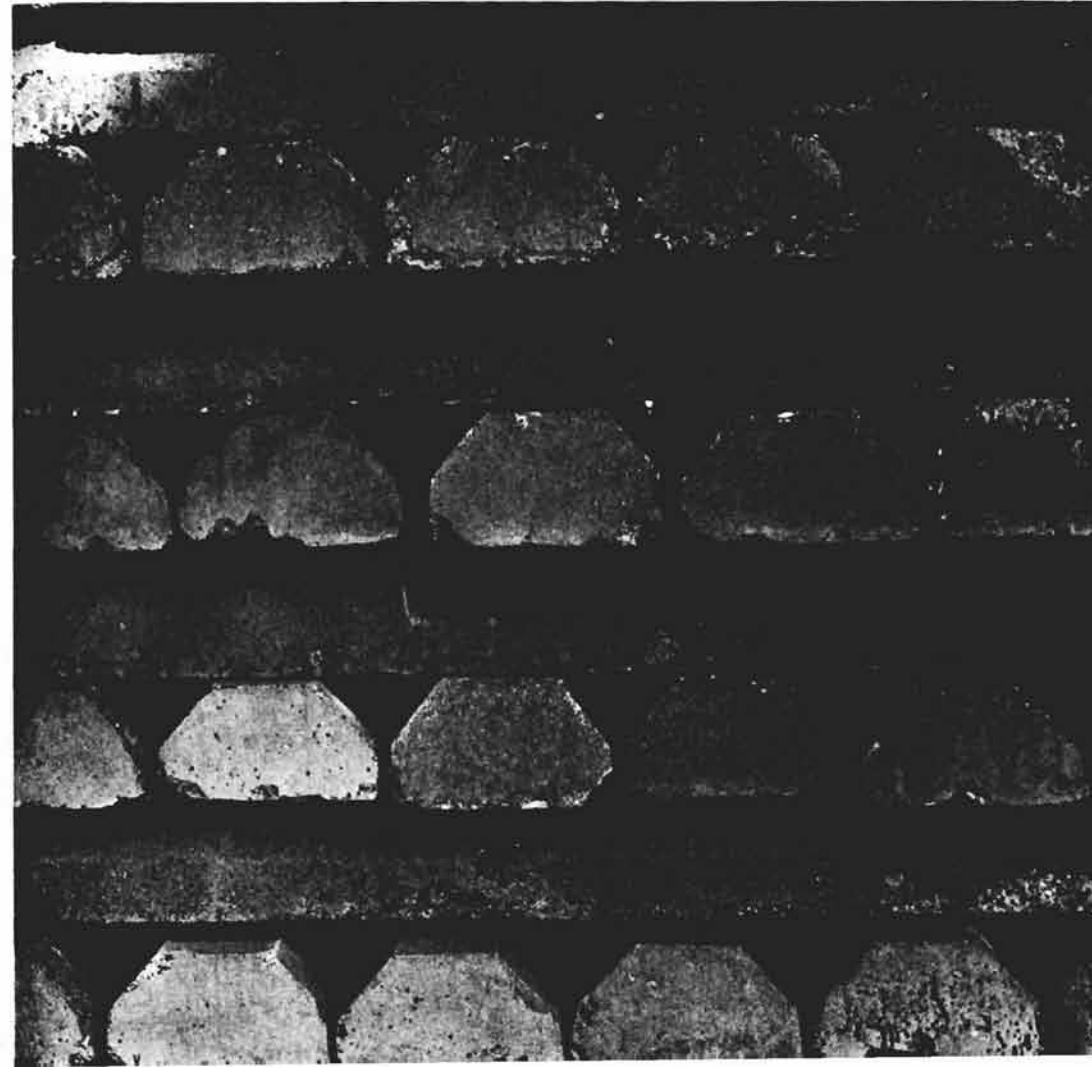
380 Special Topics in Philosophy (3) (V)

Prerequisite: Six hours of philosophy or consent of instructor. A critical study of classical and/or contemporary contributions to a selected topic in philosophy. The topic to be considered will be announced prior to registration. This course may be repeated for credit on approval by the department.

390 Philosophical Issues in Other Disciplines (3) (V)

Prerequisite: Consent of instructor. An examination of selected philosophical issues in a discipline other than philosophy. One or more such disciplines as history, political science, psychology, sociology, biology, physics, or mathematics will be chosen, and philosophical issues selected, and announced prior to registration, usually in consultation with the other department concerned. This course is normally taught as a seminar and attempts to serve advanced students in other departments with or without previous background in philosophy.

A balanced concentration of philosophy is achieved through courses in the techniques of logical analysis, the study of philosophical classics, and the examination of selected problems.



Physics

Program

The Department of Physics offers course work leading to the bachelor of arts in physics, bachelor of science in physics, bachelor of arts in physics with teacher certification in cooperation with the School of Education, and bachelor of science in education with an emphasis in physics.

In addition, the department offers many courses with no science prerequisites which may be of interest to nonscience majors.

As a part of its undergraduate program, the physics department offers students at the junior and senior levels the opportunity to participate in the teaching and research of the department. Members of the department are actively involved in such research areas as nuclear physics, solid state physics, molecular physics, and elementary particle physics. Such participation is included in an effort to prepare the student for the independent effort required in industry or in graduate school.

Students planning to major in chemistry, engineering, or physics are required to take the calculus-based general physics sequence:

- 10 Experimentation in Physics
- 111 Physics: Mechanics and Heat
- 112 Physics: Electricity, Magnetism, and Optics

Students majoring in biological science may elect the noncalculus general physics sequence, Physics 11 and 12, Basic Physics, or the calculus-based sequence. Students majoring in music are urged to take the Physics of Music: Physics 170 and 171.

All physics courses below the 300 level are offered on a regular basis in the evening. In addition, all 300 level applied physics courses are offered in the evening. During summer sessions only the introductory courses will

Geology

In addition to its regular offerings in physics, the department also houses faculty in the field of geology who offer an increasing number of historical, theoretical, and field courses in geology.

General Education Requirements

All physics majors must complete the university and College of Arts and Sciences requirements specified on pages 32 and 44, respectively for the bachelor of arts or bachelor of science degrees. Any of the following courses intended for general college audiences may be used to satisfy the general education science requirement:

Astronomy

- 1 Cosmic Evolution-Introductory Astronomy
- 11 Planets and Life in the Universe
- 12 The Violent Universe and the New Astronomy

Atmospheric Science

- 1 Elementary Meteorology

Geology

- 1 General Geology
- 2 Historical Geology

Physics

- 1 Foundations of Modern Physical Theory I
- 170 Physics of Music
- 172 Light and Color

The astronomy, atmospheric science, and geology courses may be used to satisfy the earth science requirements in certain education degree programs.

Degree Requirements

Bachelor of Arts in Physics

The A.B. program is tailored to the student who wishes to preserve the option for specialization in graduate school without sacrificing the advantages of a liberal undergraduate education. The requirements for an A.B. degree with a major in physics include the following 36 hours of physics:

- 1 Foundations of Modern Physical Theory I
- 10 Experimentation in Physics
- 111 Physics: Mechanics and Heat
- 112 Physics: Electricity, Magnetism, and Optics
- 113 Physics: The Structure of Matter
- 200 Survey of Theoretical Physics
- 201 Elementary Electronics I
- 221 Mechanics
- 223 Electricity and Magnetism
- 311 Advanced Physics Laboratory I
- 312 Advanced Physics Laboratory II

and at least two of the following Physics courses:

- 225 Physical Optics
- 241 Thermal and Statistical Physics
- 282 History of Physics
- 331 Introduction to Quantum Mechanics

Related Area Requirements

Twenty-one hours of mathematics are required including the following:

- 80 Analytic Geometry and Calculus I
- 122 Computers and Programming
- 175 Analytic Geometry and Calculus II
- 201 Analytic Geometry and Calculus III
- 302 Applied Mathematics I

Mathematics 303, Applied Mathematics II, and 316, Functions of a Complex Variable, are strongly recommended. Students with experience in digital computer programming

Physics students at the junior and senior levels are offered the opportunity to participate in the teaching and research of the department.

Computers and Programming. Chemistry 11 and 12, Introductory Chemistry I and II, or equivalent are required. All students are urged to begin the calculus sequence (Mathematics 80, Analytic Geometry and Calculus I) as soon as possible.

Bachelor of Science in Physics

The B.S. degree provides the student with a choice of three options, each of which is designed to fit the special needs of the individual student: physics option, astrophysics option, and applied physics option.

Physics Option

The physics option may be elected by those students who desire a greater concentration of physics and mathematics. It is recommended for the student desiring to enter graduate study in physics.

The requirements for a B.S. degree with the physics option are at least 49 but no more than 51 hours of physics including:

- 10 Experimentation in Physics
- 111 Physics: Mechanics and Heat
- 112 Physics: Electricity, Magnetism, and Optics
- 113 Physics: The Structure of Matter
- 200 Survey of Theoretical Physics
- 201 Elementary Electronics I
- 221 Mechanics
- 223 Electricity and Magnetism
- 225 Physical Optics
- 241 Thermal and Statistical Physics
- 311 Advanced Physics Laboratory I
- 312 Advanced Physics Laboratory II
- 331 Introduction to Quantum Mechanics
- 335 Atomic and Nuclear Physics
- 343 Selected Topics in Physics I
- 344 Selected Topics in Physics II

Related Area Requirements

Twenty-seven hours of mathematics are

- 80 Analytic Geometry and Calculus I
- 122 Computers and Programming
- 175 Analytic Geometry and Calculus II
- 201 Analytic Geometry and Calculus III
- 302 Applied Mathematics I
- 303 Applied Mathematics II
- 316 Functions of a Complex Variable

Students with experience in digital computer programming may be excused from Mathematics 122, Computers and Programming. Additional hours in mathematics at the 200 level or beyond are highly recommended. Chemistry 11 and 12, Introductory Chemistry I and II, or equivalent are required. All students are urged to begin the calculus sequence (Mathematics 80, Analytic Geometry and Calculus I) as soon as possible.

Astrophysics Option

This option may be elected by students who wish an exposure to astronomy in order to enter graduate study in astrophysics or to enter the aerospace industry.

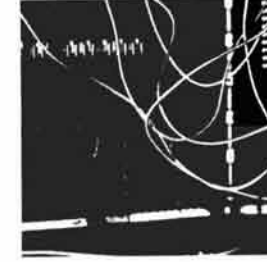
The requirements for the B.S. degree with the astrophysics option include at least 45 but no more than 51 hours of the following physics and astronomy courses:

Physics

- 10 Experimentation in Physics
- 111 Physics: Mechanics and Heat
- 112 Physics: Electricity, Magnetism, and Optics
- 113 Physics: The Structure of Matter
- 200 Survey of Theoretical Physics
- 221 Mechanics
- 223 Electricity and Magnetism
- 225 Physical Optics
- 241 Thermal and Statistical Physics

Astronomy

- 101 Practical Astronomy
- 201 Astrophysics



Members of the physics department are involved in research areas such as nuclear physics, solid state physics, molecular physics, and elementary particle physics.

- 1 Cosmic Evolution - Introductory Astronomy
- 11 Planets and Life in the Universe
- 12 The Violent Universe and the New Astronomy

Related Area Requirements

Twenty-four hours of mathematics are required including:

- 80 Analytic Geometry and Calculus I
- 122 Computers and Programming
- 175 Analytic Geometry and Calculus II
- 201 Analytic Geometry and Calculus III
- 302 Applied Mathematics I
- 303 Applied Mathematics II

Additional hours of mathematics at the 300 level are recommended. Chemistry 11, Introductory Chemistry I, or equivalent is required. All students are urged to begin the calculus sequence (Mathematics 80, Analytic Geometry and Calculus I) as soon as possible.

Applied Physics Option

This option is designed for those students who desire a career in the research and development field. This option prepares the student for employment in technical industry or for graduate study in applied or engineering sciences by a concentration on subjects such as electronics. All courses required in the applied physics option are offered in the evening on a regular basis. In some cases students may elect engineering courses from the University of Missouri-Rolla Graduate Engineering Center at UMSL.

The requirements for the B.S. degree with applied physics option include a minimum of 45 hours and a maximum of 49 hours of the following physics courses:

- 10 Experimentation in Physics
- 111 Physics: Mechanics and Heat

- 112 Physics: Electricity, Magnetism, and Optics
- 113 Physics: The Structure of Matter
- 200 Survey of Theoretical Physics
- 201 Analytic Geometry and Calculus III
- 221 Mechanics
- 223 Electricity and Magnetism
- 241 Thermal and Statistical Physics
- 311 Advanced Physics Laboratory I
- 312 Advanced Physics Laboratory II
- 325 Linear Analysis of Physical Systems

and two of the following physics courses:

- 353 Physics of Fluids
- 354 Atmospheric Physics
- 355 Topics in Space Physics
- 356 Quantum Optics

Related Area Requirements

Twenty-seven hours of mathematics are required including:

- 80 Analytic Geometry and Calculus I
- 122 Computers and Programming
- 175 Analytic Geometry and Calculus II
- 201 Analytic Geometry and Calculus III
- 302 Applied Mathematics I
- 303 Applied Mathematics II

Students with experience in digital computer programming may be excused from Mathematics 122. Additional hours of mathematics are recommended. Chemistry 11, Introductory Chemistry I, or equivalent is required. Additional hours of chemistry are recommended. All students are urged to begin the calculus sequence (Mathematics 80, Analytic Geometry and Calculus I) as soon as possible.

Bachelor of Science in Education with an Emphasis in Physics

The bachelor of science in education with an emphasis in physics is designed for a student who wishes to teach physics in a secondary school system. The program is designed to give the student a firm foundation in the history, philosophy, and principles of physics. The student must fulfill the general education requirements of the School of Education. For details of the program consult the physics department and the School of Education.

Physics Faculty

Corneliu Eftimiu, Ph.D.
University of Bucharest chairman, professor

Peter H. Handel, Ph.D.
University of Bucharest professor

John S. Rigden, Ph.D.
Johns Hopkins University professor

Bob L. Henson, Ph.D.
Washington University associate professor

Robert Hight, Ph.D.
University of Missouri-Columbia associate professor

Philip B. James, Ph.D.
University of Wisconsin associate professor

Jacob J. Leventhal, Ph.D.
University of Florida associate professor

Frank E. Moss, Ph.D.
University of Virginia associate professor

Gerlad R. North, Ph.D.
University of Wisconsin associate professor

Ta-Pei Cheng, Ph.D.
Rockefeller University assistant professor

Bernard Feldman, Ph.D.
Harvard University assistant professor

Larry J. Lee, Ph.D.
Washington University assistant professor, geology

Nance O'Fallon, Ph.D.
University of Illinois-Urbana visiting assistant professor

Henry L. Shipman, Ph.D.
California Institute of Technology assistant professor

Suzanne Gronemeyer, A.M., instructor

Physics Description of Courses

Astronomy

1 Cosmic Evolution-Introductory Astronomy (4) (F&W)

Prerequisite: None. Planets: A brief survey of their motions and properties. Stars: Observations, including stellar spectra and colors; stellar evolution, and star clusters. Galaxies: Structure and content of the Milky Way Galaxy, its relationship to other galaxies. Cosmology: The origin and evolution of the universe. Three lectures and two multi-media.

11 Planets and Life in the Universe (4) (F)

Prerequisite: None. Man's concept of the solar system from Stonehenge to Einstein; geology and meteorology of the planets of our solar system, with particular attention to results from the space program; exobiology--study of the possibilities of life on other worlds and the best method of communicating with it. Three lecture hours and one observing session per week.

12 The Violent Universe and the New Astronomy (4) (W)

Prerequisite: Astronomy 1 or consent of instructor. A non-technical course focusing on recent results which larger telescopes and the space program have made available. Pulsars, X-ray stars, and black holes; radio astronomy, our galaxy, and interstellar molecules; exploding galaxies and quasars; origin of the expanding universe. Three lecture hours and one observing session per week.

101 Practical Astronomy (3) (V)

Prerequisite: One course in astronomy or consent of instructor. Tools of the astronomer: telescopes, photometers, and so on. Students will work on a number of projects which will enable them to develop expertise in obtaining, reducing, and analyzing astronomical observations. Student observing will be an important part of the course.

201 Astrophysics (3) (V)

Prerequisite: Mathematics 80, Physics 111 or consent of instructor. A moderately technical introduction to astrophysics. Topics will include: physics of stellar interiors and atmospheres; interpretation of stellar spectra; stellar evolution; radio astronomy; and cosmology.

Atmospheric Science

1 Elementary Meteorology (4) (W)

Prerequisite: High school physics or chemistry. An elementary survey of atmospheric phenomena intended to fulfill the science requirement. Topics included are temperature, pressure and moisture distributions in the atmosphere and dynamical effects

circulation. Applications to weather forecasting. Three hours lecture and two hours laboratory per week.

Geology

1 General Geology (4) (F&W)

Prerequisite: None. Earth materials, geologic processes, and earth history, and the application of geology to the problems in urban development and conservation.

2 Historical Geology (4)

Prerequisite: None. Study of changes in geography, climate and life through geologic time; origin of continents, ocean basins and mountains in light of continental drift; urban development and energy resources. (3 hour lecture, 1 hour lab).

101 Urban Geology (4) (V)

Prerequisite: Geology 1. Techniques and action course dealing with geologic and environmental problems of urbanized areas.

130 Common Rocks and Minerals (3)

Prerequisite: Geology 1. Laboratory and field identification of common minerals and rocks by physical properties. (1 hour lecture, 2 hours lab).

290 Research (Credit arranged) (F,W,S)

Prerequisites: Consent of Instructor. Independent geology research projects arranged between student and instructor. Hours arranged.

Physics

1 Foundations of Modern Physical Theory I (4) (F,W,S)

Prerequisite: Mathematics 2 or equivalent. An introduction to some of the major ideas, principles, and basic laws directing the development of contemporary physics. The course work consists of two general lectures each week in which the material is introduced, one discussion session, and one two-hour multi-media laboratory.

10 Experimentation in Physics (2) (F,W,S)

Prerequisite: Mathematics 40 (may be taken concurrently) or equivalent. A laboratory course designed to introduce the students to electrical circuits and elementary electronics. No prior knowledge of circuits or electronics will be assumed. Four hours laboratory per week.

11 Basic Physics (4) (F)

Prerequisite: Mathematics 30 or Mathematics 40. A survey course specifically designed for students in the health and life science covering such topics as classical mechanics, heat, sound, electricity,

students majoring in physics, chemistry, or engineering. Three hours of lecture and two hours laboratory.

12 Basic Physics (4) (W)

Prerequisite: Physics 11. A continuation of Physics 11.

30 Engineering Graphics (3)

Prerequisite: Math 40 or equivalent. Lettering, drafting equipment, technique and standards. Technical sketching, engineering curves, charts and graphs. Multi-view and pictorial drawing, space analysis of lines, planes and solids. Basic dimensioning, sections, shop processes and shop drawings and sketches. Engineering organization charts and flow diagrams. Design analysis and use of standard parts. Graphical mathematics, micro-filming, computer drafting and reproduction processes. Creative design.

85 Statics and Elementary Strength of Materials (3)

Prerequisites: Math 80. Physics 111 or Physics 112 concurrently. Fundamentals of statics; static equilibrium and introduction to elements of mechanics of elastic materials.

111 Physics: Mechanics and Heat (3) (F&W)

Prerequisite: Mathematics 80 or 101. Physics 1 or Chemistry 12 or equivalent is recommended. An introduction to the phenomena, concepts and laws of mechanics and heat for physics majors and students in other departments. Three hours lecture plus one hour discussion per week.

112 Physics: Electricity, Magnetism, and Optics (3) (F&W)

Prerequisite: Physics 111 and Mathematics 175 or 101. A phenomenological introduction to the concepts and laws of electricity and magnetism, electromagnetic waves, optics and electrical circuits for physics majors and students in other departments. Three hours lecture plus one hour discussion per week.

113 Physics: The Structure of Matter (3) (F)

Prerequisite: Physics 112. A phenomenological introduction to selected concepts and laws of physics as they are applied to the structure of matter. Elements of atomic, nuclear, and molecular physics will be discussed. Three hours lecture plus one hour discussion per week.

170 Physics of Music (3) (F)

Prerequisite: Mathematics 02 or equivalent. Musical sound is the subject matter of this course: how it originates (musical instruments), how it is reproduced (stereo sound systems), how it is transmitted, and how it is perceived.

171 Applications of the Physics of Music (2)

Demonstrations and experiments concerning the origination, the reproduction, the synthesis, the transmission, and the detection of musical sounds.

172 Light and Color (3) (V)

Prerequisite: Mathematics 02. A study of the physical concepts as they relate to light, color, and visual phenomena. Models of light applied to reflection, refraction, diffraction, and interference. Optical devices such as the eye and the camera will be studied. Visual and color perception.

173 Applications of Light and Color (2) (V)

Prerequisite: Mathematics 02. Demonstrations and experiments leading to a physical understanding of the behavior of light from source to detector whether that be the eye or a camera. Phenomena such as reflection, refraction, diffraction, and interference will be demonstrated. Color analysis and synthesis.

185 Introduction to Dynamics (3)

Prerequisite: 85. Basic fundamentals of particle and rigid body dynamics; energy and momentum methods.

200 Survey of Theoretical Physics (3) (W)

Prerequisite: Physics 111 and Mathematics 201. Mathematical techniques specifically used in the study of mechanics, electricity and magnetism, and atomic physics, are developed in the context of various physical problems. The major areas covered are vector analysis, solutions of Laplace's equation, coordinate systems and numerical techniques.

201 Elementary Electronics I (3) (F,W,S)

Prerequisite: Physics 112. Primarily a laboratory study of characteristics of standard circuit elements, amplifier circuits, power supplies, operational amplifiers, digital and switching circuits, servo systems, shielding and noise problems, transducers and oscilloscopes. Six hours of laboratory per week.

202 Elementary Electronics II (3) (F,W,S)

Prerequisite: Physics 201. Continuation of Physics 201. Six hours laboratory per week.

221 Mechanics (3) (F)

Corequisite: Physics 200 and Mathematics 302. Advanced course covering rigid body dynamics, damped and undamped oscillatory motion, with an introduction of Lagrange's equations and variational principles. Three hours lecture and one hour discussion per week.

223 Electricity and Magnetism (3) (F)

Prerequisite: Physics 200 and Mathematics 302 (Mathematics 302 may be taken concurrently). Electromagnetic fields, including electrostatics,

currents and magnetic fields, motion to charged particles, introduction to electromagnetic waves. Three hours lecture and one hour discussion per week.

225 Physical Optics (3) (W)

Prerequisite: Physics 223. A basic study of light; interference, diffraction, crystal optics, reflection, scattering and light quanta. Three hours lecture and one hour discussion per week.

241 Thermal and Statistical Physics (3) (W)

Prerequisite: Mathematics 201 and Physics 113. Introduction to statistical mechanics, laws of thermodynamics, kinetic theory. Three hours lecture and one hour discussion per week.

280 Methods of Teaching Physics in Secondary Schools (3) (W)

Same as Education 280. Prerequisite: Education 163 and a near-major in the subject area. A study of the scope and sequence of the science courses in the school curriculum, with emphasis on the selection and organization of materials and methods of instruction and evaluation. Attention is also directed toward learning the techniques and research tools of the scholar in the field of science.

281 Directed Readings in Physics (Credit arranged) (F,W,S)

Prerequisite: Consent of instructor. A study of the literature of physics. A paper is required on an approved topic. Hours arranged.

282 History of Physics (3) (F)

Prerequisite: Physics 1 or Astronomy 1. A study of the historical evolution of physics. Three hours lecture per week.

289 Seminar (1) (F&W)

Presentation of selected papers by students and faculty members at weekly meetings. May be taken twice for credit.

290 Research (Credit arranged) (F,W,S)

Prerequisite: Consent of department. Independent physics research projects arranged between student and instructor. Hours arranged.

295 Selected Topics in Physics for the Secondary School Teacher I (2) (F)

A basis for understanding the current developments in science is provided for the secondary school science teacher. The content of the course will be generally directed towards macroscopic phenomena.

296 Selected Topics in Physics for the Secondary School Teacher II (2) (W)

the current developments in science is provided for the secondary school science teacher. The content of the course will be generally directed toward macroscopic phenomena.

297 Selected Topics in Physics for the Secondary School Teacher III (2) (F)

A basis for understanding the current developments in science is provided for the secondary school science teacher. The content of the course will be generally directed towards microscopic phenomena.

298 Selected Topics in Physics for the Secondary School Teacher IV (2) (W)

Prerequisite: Physics 297. A basis for understanding the current developments in science is provided for the secondary school teacher. The content of the course will be generally directed toward microscopic phenomena.

301 Introduction to Mathematical Physics (3) (F)

Prerequisite: 16 hours of physics. A course covering mathematical techniques as applied to the equation of theoretical physics; calculus of variations, Green's functions; linear vector spaces, integral equations. Three hours lecture and one hour discussion per week.

305 Physical Application of Group Theory (3) (W)

Prerequisite: Physics 113. Elements of group theory and group representations. Point symmetry groups and applications to the physics of crystals. The rotation group in two and three dimensions with application to atomic and nuclear spectroscopy. Three hours lecture and one hour discussion per week.

311 Advanced Physics Laboratory I (2) (F)

Prerequisite: Physics 113, 201, 221 and Mathematics 122. Physics majors are introduced to the experimental techniques used in research. A student will choose and do several special problems during the semester. Six hours laboratory per week.

312 Advanced Physics Laboratory II (2) (W)

Prerequisite: Physics 113, 201, 221 and Mathematics 122. Continuation of Physics 311. Six hours laboratory per week.

325 Linear Analysis of Physical Systems (3) (W)

Prerequisite: Physics 201, Mathematics 302. Signals and Systems, Fourier and Laplace analysis, transform methods, amplitude phase and delay, transfer functions and filters. Three hours lecture and one hour discussion per week.

331 Introduction to Quantum Mechanics (3) (F)

Prerequisite: Physics 113, 221, 223, 241. Elementary

techniques, and perturbation theory. Three hours lecture and one hour discussion per week.

335 Atomic and Nuclear Physics (3) (W)

Prerequisite: Physics 331. Application of Schrodinger's equation to hydrogen-like atoms; atomic structure and spectra; nuclear masses, energy levels; alpha, beta, and gamma radiation, nuclear reactions, models of the nucleus. Three hours lecture and one hour discussion per week.

343 Selected Topics in Physics I (3) (F)

Prerequisite: Physics 113, 221, 223, 225, 241 and Mathematics 316. (Mathematics 316 may be taken concurrently.) Topics include special phenomena such as scattering of waves, thermal motion in gases, atmospheric disturbances, treated by methods of advanced mechanics electromagnetism and quantum mechanics. Three hours lecture and one hour discussion per week.

344 Selected Topics in Physics II (3) (W)

Prerequisite: Physics 343. Continuation of Physics 343. Three hours lecture and one hour discussion per week.

351 Elementary Solid State Physics (3) (W)

Prerequisite: Physics 331. Theoretical and experimental aspects of solid state physics, including one-dimensional band theory of solids; electron emission from metals and semiconductors; electrical and thermal conductivity of solids. Three hours lecture and one hour discussion per week.

353 Physics of Fluids (3) (F)

Prerequisite: Physics 221, 223, and 241, or consent of instructor. Topics from the theory of gases, liquids, or plasmas. Dynamical properties of one of these forms of matter will be developed with contemporary applications stressed.

354 Atmospheric Physics (3) (W)

Prerequisite: Physics 241. Topics from dynamic and physical meteorology including the ionosphere. Application of thermodynamics, optics, radiation, and mechanics to atmospheric phenomena.

355 Topics in Space Physics (3) (F)

Prerequisite: Physics 221. Corequisite: Physics 223. The two body central force problem, satellite orbits, comets, and asteroids, Lagrangian points and the Anti Earth, the Trojans of Jupiter, artificial satellites, transfer orbits and missions, rocket dynamics. The solar environment, trapping of charged particles in magnetic fields, Earth's radiation belts, the solar wind aurorae and whistlers, sailing on the solar wind, the cosmic ray problem. Introduction to magnetohydrodynamics. MHD waves, sun spot

356 Quantum Optics (3) (W)

Prerequisite: Physics 113 and 200. Mathematics 302. Review of atomic theory and spectroscopy. Selected applications to modern optical phenomena such as optical pumping, lasers, masers, Mossbauer effect, and holography.

357 Applied Solid State Physics (3) (F&S)

Prerequisite: Physics 113 and 241. Quantum theory needed for solids. Survey of solid state topics such as conductors, semiconductors, insulators with applications to transistors, solid state lasers, and other contemporary devices.

Political Science

Program

The Department of Political Science offers work leading to the bachelor of arts in political science, bachelor of science in the School of Education with an emphasis in social studies (see School of Education for details), and master of arts in political science (see the *Graduate Bulletin* for details).

It is the purpose of these programs to prepare students for graduate work in any of the fields of political science, to prepare students for admission to law school (see prelaw program), to prepare students for careers in local, state, and national government, the civil service and the foreign service, to prepare students for careers in secondary education, and to provide a grounding in the social sciences as part of a liberal arts education.

Principal areas of concentration are urban and regional politics, American politics, political process and behavior, international politics, comparative politics, public administration, and political theory.

Research in political science is assisted by UMSL's Center of Community and Metropolitan Studies, Center for International Studies, and Computer Center. The department is a member of the Inter-University Consortium for Political Research, thereby providing students access to a wide range of survey data in American, European, and international politics.

General Education Requirements

Each political science major must satisfy the general education requirements of the university listed on page 32 and the general education requirements of the College of Arts and Sciences listed on page 44. Courses in political science may be used to satisfy the university's social science area requirement. The college's foreign language requirement may be satisfied in any foreign language and the non-Euro-American requirement in any approved non-Euro-American course. All courses in the department may be taken on pass-fail. A major may count six hours in political science taken on pass-fail towards his or her major.

Degree Requirements

Every candidate for the A.B. degree with a major in political science must take 36 to 45 hours of political science including Political Science 11, Government in Modern Society: American Politics and 12, Government in Modern Society: Comparative Politics. Each major must take at least one course in five of the following seven fields:

- Group I Public Law
- Group II Political Process
- Group III Public Administration
- Group IV Comparative Politics
- Group V Theory and Methodology
- Group VI Urban and Regional Politics
- Group VII International Relations

Every candidate for the B.S. degree in the School of Education with a major in political science must meet degree requirements prescribed by School of Education on page 193. The minimum course work in political science is 30 hours rather than the 36 hours required for the A.B. degree.

Related Area Requirements

Each political science major must complete a minimum of 18 hours of administration of justice, economics, history, psychology, or sociology-anthropology. Twelve hours must be completed in one discipline and six hours in a second. These hours may be used in partial satisfaction of the general education requirements in the social sciences. Each student is encouraged to elect at least one course in statistics or accounting. As early as possible, each student should determine if he or she expects to continue in graduate work in political science or law, or is preparing for government service, foreign service, or elementary or secondary school teaching, and should consult with his or her adviser regarding other recommended electives.

The purpose of the political science program is to prepare students for careers in teaching, government, civil and foreign service, and law in addition to graduate study.

Political Science
Faculty

- Harrell R. Rodgers, Jr., Ph.D.
University of Iowa chairman, associate professor
- Edwin H. Fedder, Ph.D.
American University director, Center for International Studies, professor
- Werner F. Grunbaum, Ph.D.
University of Chicago professor
- Norton E. Long, Ph.D.
Harvard University director, Center of Community and Metropolitan Studies, curator's professor
- Eugene J. Meehan, Ph.D.
London School of Economics professor
- Bryan T. Downes, Ph.D.
Washington University associate professor
- Kenneth F. Johnson, Ph.D.
University of California, Los Angeles associate professor
- E. Terrence Jones, Ph.D.
Georgetown University associate professor
- Lyman T. Sargent, Ph.D.
University of Minnesota associate professor
- Richard D. Baron, J.D.
University of Michigan assistant professor
- John N. Collins, Ph.D.
Northwestern University assistant professor
- Richard E. Hayes, Ph.D.
Indiana University assistant professor
- Ruth S. Jones, Ph.D.
Georgetown University assistant professor
- Frederic S. Pearson, Ph.D.
University of Michigan assistant professor
- Harry Mellman, Ph.D.
University of Illinois lecturer
- Joel Glassman, M.A.
instructor
- Robert E. Welch, M.A.
instructor

Political Science
Description of Courses

Prerequisites may be waived by consent of department.

Ungrouped Courses

11 Government in Modern Society: American Politics (3) (F&W)

Introduction to basic concepts of government and politics with special reference to the United States, but including comparative material from other systems. Course fulfills the state requirement.

12 Government in Modern Society: Comparative Politics (3) (F&W)

An introduction to basic political structures and processes with an emphasis on foreign political systems and comparative political analysis. The course will deal with democratic and non-democratic political systems in developed and underdeveloped nations.

77 Third World Development (3)

Same as Sociology 77 and Anthropology 77. Prerequisite: None. An interdisciplinary course concerned with the process of development and underdevelopment in the modern world. We will focus upon the internal structures of societies, the effects of foreign policies, and cooperative and coercive international relations as they have affected developing nations. The loss of many valuable aspects of life that has accompanied previous patterns of development will be examined in light of the possibility of alternative strategies.

90 Freshman Seminar (3) (V)

Prerequisite: Freshman standing and consent of instructor. Topics to be announced. Weekly seminars supplemented by individual conferences. Limited to 15 students.

99 The City (3) (F&W)

Same as Administration of Justice 99, Economics 99, History 99, Psychology 99, and Sociology 99. Prerequisite: 12 hours of college credit. An interdisciplinary course. Consideration of economic factors, urban institutions, historical developments in urbanization, problems of the inner city, suburbia and the metropolitan area, ethnic groups, stratification, and psychological implications of urban living.

190 Political Science Readings (credit arranged) (V)

Prerequisite: Political Science 11 or 12, consent of instructor and junior standing. Readings on topics mutually acceptable to student and instructor. May be repeated.

295 Internship (1-6) (F&W)

instructor. Independent study involving work with an appropriate public or private agency. A maximum of six credit hours may be earned.

390 Special Readings (credit arranged) (F&W)

Prerequisite: Consent of instructor. Independent study through readings, reports, and conferences. May be repeated.

Group I: Public Law

225 Jurisprudence (3) (V)

Prerequisite: Political Science 11 or 12. Development of law and legal systems, comparison of methods and procedure in making and enforcing law in Roman and common law systems; consideration of fundamental legal concepts; contributions and influence of schools of legal thought in relation to law and government.

227 Urban Law: Poverty and the Justice System (3)

Prerequisite: Political Science 11, or AOJ 220, or equivalent, or consent of instructor. Examination of administrative regulations and the civil law process as it affects the life of urban residents.

320 Introduction to American Constitutional Law (3) (F&W)

Prerequisite: Political Science 11. Study of leading American constitutional principles as they have evolved through important decisions of the United States Supreme Court. Course fulfills the state requirement.

321 Civil Liberties (3) (V)

Prerequisite: Political Science 11. Study of leading American constitutional context, emphasizing freedom of religion, freedom of expression, minority discrimination, loyalty and rights of defendants.

324 Judicial Behavior (3) (V)

Prerequisite: Political Science 11 or 12. Anthropological, economic, psychological, and social dimensions of judicial behavior; judicial attitudes, voting behavior, and decision-making.

329 Studies in Public Law (3) (V)

Prerequisite: Political Science 11. Selected topics in Constitutional law, administrative law, legal philosophy, history of the Supreme Court and judicial process. May be repeated.

Group II: Political Process

218 The Black American in United States Politics (3) (V)

The position and political behavior of Black Americans

on styles of leadership, organization, strategy and ideology.

218 Social Choice in Political Economic Systems (3)

Same as Economics 218. Prerequisite: Two courses in economics, political science or sociology. A study of the mechanisms of social choice from the standpoint of individual and political party maximization of personal objectives. This area draws on work done by sociologists, political scientists, and economists.

230 The American Presidency (3) (V)

Prerequisite: Political Science 11. Study of the constitutional, political, legislative, and administrative roles played by the American chief executive in the development of public policy.

234 Political Sociology (3) (V)

Same as Sociology 234. Prerequisite: Political Science 11, Sociology 10 or 20. The analysis of power as a social phenomenon. The processes of legitimating power and instituting authoritative structures. Stabilizing of social control and social integration at various levels of social and political organization.

235 Political Parties (3) (F)

Prerequisite: Political Science 11. Development, organization, functions, activities of major and minor political parties, pressure groups, elections administration, especially in the United States. Course fulfills the state requirement.

331 Legislative Process (3) (V)

Prerequisite: Political Science 11. Congressional elections, constituent relations, policy making and leadership, relations between Congress and administrative and executive agencies, the committee system, seniority and procedure. Congress as an element in the party system.

332 Studies in Political Behavior (3) (V)

Prerequisite: Political Science 11 or 12. Selected topics such as electoral behavior, political opinion, political socialization, political leadership, political violence and others. May be repeated.

333 Studies in Policy Formation (3) (V)

Prerequisite: Political Science 11 or 12. Selected topics such as science and public policy, environmental policy, and other domestic policy domains. May be repeated.

Group III: Public Administration

140 Public Administration (3) (V)

Prerequisite: Political Science 11. Survey of public

financial administration, personnel management, judicial control of the administrative process.

341 Comparative Public Administration (3) (V)
See Group IV.

345 Business and Government (3) (V)
Same as Economics 355. Prerequisite: Economics 51. Relations between business firms and government at all levels. Questions of regulation, public ownership guidelines and competition considered.

349 Studies in Public Administration (3) (V)
Prerequisite: Political Science 11 or 12. Selected topics in administrative organization, personnel management, fiscal control, public policy and political administrative environments. May be repeated.

Group IV: Comparative Politics

253 Political Systems of South America (3) (V)
The political systems, international problems, and socio-economic-cultural environments of the governmental process of South America. Course fulfills the non-Euro-American requirement.

254 Political Systems of Mexico, Central America and the Caribbean (3) (V)
The political systems, international problems and socio-economic-cultural environments of the governmental process in Mexico, Central America, and the Caribbean. Course fulfills non-Euro-American requirement.

255 Asian Comparative Politics (3) (F&W)
Study of the political systems of Asia including China, Japan, India and Southeast Asia. Course fulfills the non-Euro-American requirement.

341 Comparative Public Administration (3) (V)
Prerequisite: Political Science 11 or 12. A comparative study of the characteristics of public administrators, their institutions and environments in Western democratic, developing nations and Communist political systems.

352 The Politics of Modernization (3) (V)
Prerequisite: Political Science 11 or 12. Analysis of the dimensions and problems of modernization and the role of political systems, with primary emphasis on African nations. Course fulfills the non-Euro-American requirement.

353 Soviet Political Systems (3) (V)
Prerequisite: Political Science 11 or 12. Examination of government and politics in the Soviet Union dealing with themes such as the role of the party, recruitment

interest groups, the formulation of policy, bureaucratization of social, economic, and cultural life.

359 Studies in Comparative Politics (3) (V)
Prerequisite: Political Science 11 or 12. Studies of political processes in specific geographic areas and related concepts in comparative analysis. May be repeated.

Group V: Theory and Methodology

100 Research Methods in Political Science (3) (V)
Prerequisite: Political Science 11 or 12. Methods of testing casual statements about politics, including research design and data measurement, collection and analysis.

160 Contemporary Political Ideologies (3) (V)
An introduction to the major political ideologies of the world today. Emphasis on communism, democracy and nationalism.

261 History of Political Thought (3) (V)
Study of political philosophy from Plato to Machiavelli.

262 History of Political Thought (3) (V)
Study of political philosophy from Machiavelli to the present.

265 Normative Political Philosophy (3) (V)
Prerequisite: Political Science 11 or 12. Analysis of the concepts of justice, liberty, equality, power and authority in political philosophy. Theories of revolution. General consideration of problems in normative political philosophy.

269 The Marxist Heritage (3) (V)
Same as Philosophy 269. An interdisciplinary study of Marx and leading Marxists, designed to evaluate their influence on recent political, economic, and social thought and institutions.

300 Empirical Political Theory (3) (V)
Prerequisite: Political Science 11 or 12. Consideration of the elements of scientific method and social phenomena; critics of the scientific approach in political science, nature and logic and explanatory theories, such as systems theory, structural-functional analysis and deductive theories.

301 Positive Models and Theories of Strategy (3) (V)
Prerequisite: Political Science 11. An introduction to utility theory, model building, game theory and political man as a rational decision-maker. Special emphasis is given to the consideration of world dealing

304 Survey Research Practicum (3)

Same as Economics 304 and Sociology 304. Prerequisite: Junior standing and consent of the instructor. The execution of a sample survey, including establishing study objectives, sampling, questionnaire construction, interviewing, coding, data analysis, and presentation of results.

368 Studies in Political Theory (3) (V)

Prerequisite: Political Science 11 or 12. Selected topics such as American political thought, utopian political thought and theories of revolution. May be repeated.

Group VI: Urban and Regional Politics

170 State and Local Government (3) (V)

Prerequisite: Political Science 11 or consent of instructor. Origin, development and problems of state and local government in the American Federal system, including the role of the United States Constitution as the framework for the Federal system. Survey of the organization, functions and operation of state and local governments in the United States. Course fulfills the state requirement.

176 Community Politics (3) (V)

Examination of the structure and process of politics in the urban community, with emphasis on their relationships to community power structures. Course fulfills the state requirement.

375 Urban Planning and Politics (3) (V)

Prerequisite: Political Science 11. Examination of the political processes of urban areas as they relate to the planning of services and facilities.

378 Studies in Urban Politics (3) (V)

Prerequisite: Political Science 11. Selected topics in urban politics, such as ethnic politics, theories of urban violence and suburban politics. May be repeated.

Group VII: International Relations

180 World Politics (3) (V)

Analysis of politics among nations, including such topics as: nationalism, imperialism and colonialism, revolution and war; arms control and disarmament; and peace and the regulation of conflict.

282 United States Foreign Policy (3) (V)

Prerequisite: Political Science 11 or 12. Examination of the factors influencing the formation and the execution of United States foreign policy and of specific contemporary foreign policies and problems.

285 International Organization (3) (V)

functions of international organizations, with special reference to the United Nations, regional organizations and problems of international integration.

381 Foreign Policy Decision-Making (3) (V)

Prerequisite: Political Science 11 or 12. Empirical and experimental studies of foreign policy decision-making processes.

383 International Integration (3) (V)

Prerequisite: Political Science 11 or 12. The processes by which new political entities are formed in the international system replacing previously discrete national units.

386 International Politics: Theory and Process I (3)

Prerequisite: Political Science 11 or 12. Introduction to the nature of theory and scientific methods in the study of international political processes, focusing on the principal empirical theories of the field.

387 International Politics: Theory and Process II (3)

Prerequisite: Political Science 386. Continuation of Political Science 386, with emphasis on student participation in the formation and testing of various theories.

388 Studies in International Relations (3) (V)

Prerequisite: Consent of instructor. Regional or functional problems in international relations, e.g., international relations of the Middle East, Western Europe, international coalitions. May be repeated.

Psychology

Program

The Department of Psychology offers work leading to the bachelor of arts degree and has developed four curriculum plans in order to meet the varied needs of its majors: Graduate School preparation, general psychology, child care and development specialization, and community mental health specialization.

In conjunction with course work in the department students have opportunity to do research in a wide variety of areas, including animal and human learning, perception, physiological, personality-social, developmental, clinical, and community psychology. Laboratory facilities for such research activities are available. With a variety of curricula and research experiences available, majors may work out programs closely suited to their interests with the guidance of their adviser.

General Education Requirements

Each psychology major must satisfy all the general education requirements of the university listed on page 32 and the general education requirements of the College of Arts and Sciences listed on page 44. Courses in psychology may be used to meet the university's social science area requirement.

Students who seriously anticipate going on to advanced graduate work in psychology are strongly advised to satisfy the foreign language requirement of the College of Arts and Sciences by taking French, German, or Russian. Otherwise, any language will be acceptable to the Department of Psychology majors may not take courses in psychology using the pass-fail option.

Degree Requirements

Each Psychology major must complete 32 hours of psychology. Required for all majors is the departmental core curriculum:

- 101 Introductory Psychology (or equivalent)
- 102 Psychological Statistics
- 193 General Experimental Psychology

Students who seriously anticipate going on to advanced graduate work in psychology are strongly advised to satisfy the foreign language requirement of the College of Arts and Sciences by taking French, German, or Russian. Otherwise, any language will be acceptable to the Department of Psychology majors may not take courses in psychology using the pass-fail option.

Each psychology major must take Mathematics 30 or the equivalent prior to taking Psychology 101.

Graduate School Preparation

This course of study would be most suitable for students planning application to a doctoral program in psychology. In addition to the departmental core requirements, these students are required to take Psychology 261 and one of the following:

- 214 Physiological Psychology
- 254 Experimental Social Psychology
- 257 Psychology of Learning
- 258 Comparative Psychology
- 265 Psychological Tests and Measurements

Students are strongly encouraged to take Psychology 192 and 193 as electives.

General Psychology Major

This area is suitable for students interested primarily in a general liberal education in psychology without any particular career or professional concentration. In addition to the departmental core requirements these students are also required to take one of the

A variety of curricula and research experiences are available to meet the varied needs of the psychology students.

- 214 Physiological Psychology
- 254 Experimental Social Psychology
- 255 Psychology of Perception
- 257 Psychology of Learning
- 258 Comparative Psychology
- 265 Psychological Tests and Measurements

The following two areas of specialization would be most appropriate for students with no plans for graduate training who have decided to make their careers in community activity or child-related fields and would prefer a somewhat more focused program than might be obtained in the general psychology major area.

Child Care and Development Specialization

This area is ideal for double majors in education and psychology or for a student interested in dealing with children in a variety of career fields. In addition to the departmental core requirements, these students are required to take at least five of the following courses (two of them must be at the 200 level):

- 111 Human Motivation
- 150 Psychology of Individual Differences
- 170 Child Psychology
- 171 Adolescent Psychology
- 172 Psychology Maturity and Old Age
- 205 Cognitive Development
- 206 Social Development
- 216 Personality Theory
- 249 Human Learning
- 256 Cognitive Processes

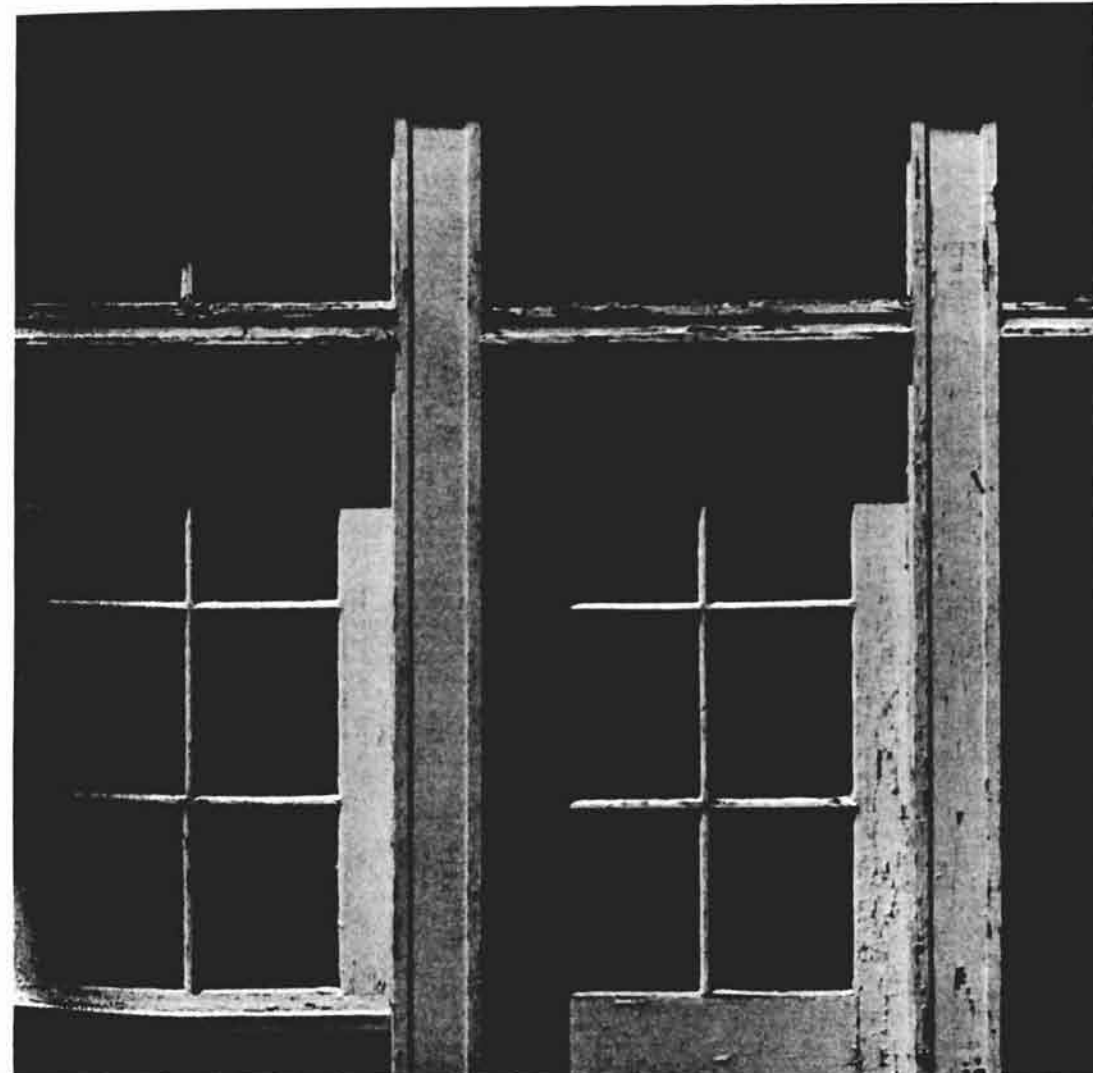
Community Mental Health Specialization

This area is ideal for double majors in another social science, particularly in social work and sociology or for a student interested in any of the human service fields. In addition to the departmental core requirements, these students are required to

(two of them must be at the 200 level):

- 105 Group Prejudice and Minority Identity
- 145 Abnormal Psychology
- 155 Community Psychology
- 156 Environmental Psychology
- 160 Social Psychology
- 225 Behavior Modification
- 246 Introduction to Clinical Psychology
- 248 Psychological Research and Theory in
Juvenile Delinquency
- 254 Experimental Social Psychology
- 260 Attitude Structure and Change
- 265 Psychological Tests and Measurements

In conjunction with course work in psychology students have opportunities to do research in a wide variety of areas, including animal and human learning, perception, and physiological, personality-social, developmental, clinical, and community psychology.



Psychology
Faculty

James T. Walker, Ph.D.
University of Colorado chairman, associate professor

Edmund S. Howe, Ph.D.
University of London professor

Arthur L. Irion, Ph.D.
State University of Iowa professor

Alan G. Krasnoff, Ph.D.
University of Texas professor

Lewis J. Sherman, Ph.D.
University of Illinois professor

Frederick J. Thumin, Ph.D.
Washington University professor

Gary K. Burger, Ph.D.
Loyola University associate professor

Alan E. Gross, Ph.D.
Stanford University associate professor

Theresa S. Howe, Ph.D.
University of California at Berkeley associate professor

Samuel J. Marwit, Ph.D.
State University of New York at Buffalo director,
Counseling Service, associate professor

Miles L. Patterson, Ph.D.
Northwestern University associate professor

D.J. Zerbolio, Jr., Ph.D.
Michigan State University associate professor

John J. Boswell, Ph.D.
Tulane University assistant professor

Robert W. Jeffery, Ph.D.
Stanford University assistant professor

Donald D. Lisenby, Ph.D.
Washington University assistant professor

Jacob L. Orlofsky, Ph.D.
State University of New York at Buffalo assistant professor

Jayne E. Stake, Ph.D.
Arizona State University assistant professor

Alice G. Vlietstra, Ph.D.
University of Kansas assistant professor

David R. Ziff, Ph.D.
University of Texas assistant professor

Psychology
Description of Courses

3 General Psychology (3) (F&W)

A broad introductory survey of the general principles of human behavior. Psychology 3 may be applied toward fulfillment of the general education requirement in social science. However, it does not satisfy the prerequisite requirements of other courses in psychology at the 200 level or above and should not be taken by majors in psychology.

10 Introductory Psychology (4) (F&W)

A one semester prerequisite for students intending to major in psychology or take psychology courses at the 200 level or above. The course offers a survey of the facts, principles and methods in the scientific study of human behavior.

45 Race (3) (V)

(Same as History 45 and Sociology 45) Prerequisite: 12 hours of college course credit. Origins and functions of conceptions of race. Biological and social definitions of race; the function of racial ideologies in societies; social, historical and psychological bases of racism in the U.S.; the consequences of racism for the individual and societies. (Does not count toward major).

99 The City (3) (F&W)

(Same as History 99, Political Science 99, Sociology 99 and Economics 99) Prerequisite: 12 hours of college credit. An interdisciplinary course. Consideration of economic factors, urban institutional developments in urbanization, problems of the inner city, suburbia and the metropolitan area, ethnic groups, stratification and psychological implications of urban living. (Does not count toward major).

101 Psychological Statistics (4) (F&W)

(With laboratory) Prerequisite: Psychology 10 or equivalent, Mathematics 30 or equivalent. Statistical methods in psychological measurement, and analysis of psychological data. Frequency distribution analysis, sampling, test of significance, correlational methods.

105 Group Prejudice and Minority Identity (3)

(Same as Sociology 105) Prerequisite: Psychology 10 or Sociology 10. The psychological study of determinants of identity formation and transformation among minority groups.

111 Human Motivation (3) (V)

Prerequisite: 3 hours of psychology. A survey and comparison of current types of human motivation theory and research, with some consideration of future trends in motivation theory and implications for motivation theory and research to other areas in psychology.

12 Principles of Learning (3) (V)

Prerequisite: Psychology 03 or 10. A consideration of critical findings in learning.

14 Physiological Psychology (3) (V)

Prerequisite: Psychology 10 or equivalent and Biology 10. A survey of the major areas of physiological psychology with an emphasis on their historical development.

45 Abnormal Psychology (3) (F&W)

Prerequisite: Psychology 3 or 10. Introduction to major symptom complexes, theories of etiology and treatment of behavior disorders.

150 The Psychology of Individual Differences (3) (F)

Prerequisite: Psychology 3 or 10. Analysis of major dimensions of individual differences in behavior and the roles of genetic constitutional and experiential factors in the development of psychological differences. While emphasis is placed on human behavior, relevant information from infra-human species will be considered.

155 Community Psychology (3) (W)

Prerequisite: Psychology 3 or 10. The analysis of psychological problems in terms of the social and situational forces that produce them. Community psychology analyzes the situational problems in living, epidemiology of mental illness; group, family, and crisis intervention; mental health care delivery; program evaluation and demonstration project research; role of psychologist as consultant and change agent; utilization of non-professional manpower.

156 Environmental Psychology (3) (F)

Prerequisite: Psychology 3 or 10 quantitative or methods course. Analysis of environmental influences on behavior and man's influence, in turn, on the environment. Projects relating to these problems will be required.

160 Social Psychology (3) (F&W)

(Same as Sociology 160) Prerequisite: Psychology 3 or 10 or Sociology 10. Study of interaction between the individual and his social environment. Examination of basic principles, concepts, methods.

170 Child Psychology (3) (F&W)

Prerequisite: Psychology 3 or 10. Principles of biological, behavioral and personality development from conception to puberty.

171 Adolescent Psychology (3) (F&W)

Prerequisite: Psychology 3 or 10. Principles of biological, behavioral and personality development from adolescence to adulthood.

172 Psychology Maturity and Old Age (3) (V)

Prerequisite: Psychology 3 or 10. Exploration of the physiological and social development and changes accompanying the mature years of adulthood and later maturity, old age. Theories to explain functioning in these years as well as specific results of studies which help understand changes in all areas of functioning would be included.

192 Senior Readings (3) (V)

Prerequisite: Consent of instructor. Directed readings and research, one product of which shall be a formal paper.

193 Senior Seminar (3) (V)

Prerequisite: Consent of instructor. Directed readings and research, one product of which shall be a formal paper.

202 Statistics and Research Methods I (4)

(With laboratory) Prerequisite: Psychology 10 and Mathematics 30. Sampling, tests of significance and correlational methods in psychological experiments. (Credit not given for both 101 and 202)

203 Statistics and Research Methods II (3)

(With laboratory) Prerequisite: Psychology 102. Continuation of Statistics and Research Methods I. (Credit not given for both 203 and 219)

205 Cognitive Development (3) (V)

Prerequisite: 6 hours of Psychology or permission of instructor. Data and theory concerned with development of perceptual, language and symbolic abilities in infants and young children, including discussion of deprivation and enrichment of cognitive development.

206 Social Development (3) (V)

Prerequisite: 6 hours of Psychology or permission of instructor. Data and theory concerned with development of social behavior in infants and young children. Discussion will include the formation and interruption of attachment, the effects of social isolation, sexrole development, identification, and development of moral judgments in children.

210 Motivation Theory (3) (V)

Prerequisite: 9 hours of psychology. Survey of current theoretical material in the area of motivation.

214 Physiological Psychology (3) (V)

(With Laboratory) Prerequisite: Psychology 219 and Biology 1 and 3 or consent of instructor. The biological and physiological correlates of behavior. Special emphasis placed on the neural and endocrine systems.

216 Personality Theory (3) (V)

Prerequisite: 9 hours of psychology. Structural and dynamic aspects of the human personality considered in the context of selected theoretical systems.

218 Industrial Psychology (3) (V)

(Same as Business Administration 318) Prerequisite: Psychology 101 or equivalent, or Business Administration 310. Activities of the applied psychologist. Selection and placement, testing and interviewing, personnel research. Morale, motivation, an job satisfaction. Leadership skills and styles; creative management; industrial mental health. Psychology in advertising and marketing.

219 General Experimental Psychology (3) (F&W)

(With laboratory) Prerequisite: Psychology 101. Research methods and analysis techniques used in psychological inquiry. Special emphasis placed on the logic of research design. Includes laboratory study of and analysis of selected methods.

225 Behavior Modification (3) (V)

Prerequisite: 9 hours of Psychology, or consent of instructor. Methods, applications, and ethics of the use of behavior theory (primarily Skinner's operant conditioning) to the control of human behavior in a variety of settings including mental institutions, grade schools, universities, individual treatment, and communal living.

246 Introduction to Clinical Psychology (3) (W)

Prerequisite: 9 hours of Psychology, including Psychology 145, or 216. A conceptual framework for research, description and understanding of clinical phenomena. Assessment, interviewing, the clinical use of tests and psychological approaches to treatment.

248 Psychological Research and Theory in Juvenile Delinquency (3) (V)

Prerequisite: Psychology 10 and 145 or 216. An overview of existing psychological theory and research on various types of delinquency. Emphasis would be on etiological issues and variables involved in operationally defining or categorizing delinquent behavior. Finally some recent developments in the area of treatment would be reviewed in order to point to current and future directions of research in the field.

249 Human Learning (3) (V)

Prerequisite: Psychology 219. Theory and data pertaining to human learning, transfer, short and long-term retention, and forgetting of verbal and non-verbal information.

254 Experimental Social Psychology (3) (V)

Prerequisite: Psychology 219. Social psychological

including an emphasis on experimental methods in research. Two hours of lecture and two hours of laboratory.

255 Psychology of Perception (3) (V)

(With laboratory) Prerequisite: Psychology 219. Classical and current problems in psychophysics, sensory physiology and the developmental and comparative psychology of sensory processes. Includes laboratory study of selected sensory and perceptual phenomena.

256 Cognitive Processes (3) (V)

Prerequisite: 9 hours of psychology. Evolution of contemporary approaches to the higher mental functions. Analyses of some of the psychological processes involved in association, memory, meaning, language and conceptual behavior.

257 Psychology of Learning (3) (V)

(With laboratory) Prerequisite: Psychology 219. Major theoretical positions and experimental conditions of learning. Includes laboratory study of selected problems.

258 Comparative Psychology (3) (V)

(With laboratory) Prerequisite: Psychology 219 and Biology 1 and 3 or consent of instructor. Methods and techniques in the study of human and infra-human organisms. Laboratory study of selected behavioral process.

260 Attitude Structure and Change (3) (V)

Prerequisite: Psychology 101 or equivalent, plus 6 hours in either psychology or sociology. Theories of attitude structure and attitude change; measurement of current research.

261 History and Systems of Psychology (3) (F)

Prerequisite: 12 hours of psychology. Historical antecedents of contemporary scientific psychology, including a survey of systems and schools of psychology.

265 Psychological Tests and Measurements (3) (V)

(With laboratory) Prerequisite: Psychology 101; Psychology 219 or consent of instructor. Survey of psychological testing and principles of test construction and evaluation. Laboratory experience in construction, administration and interpretation of selected tests.

267 Analysis of the Learning Process (3) (V)

Prerequisite: Psychology 3 or 10 and the consent of the instructor. Discussion and analysis of the major phenomena and theories of learning (especially organization and growth theories) that are significant

emphasis will be on non-rote processes in learning including imitation, incidental memory, and their relation to the creative process.

290 Psychology Readings (3) (V)

Prerequisite: Psychology 3 or 10 and consent of instructor. Readings on a topic mutually acceptable to student and instructor.

301 Advanced Statistics and Experimental Design (3) (V)

Prerequisite: 12 hours of psychology, including Psychology 101. Statistical methods particularly useful in psychological research and the design of experiments appropriate to these methods.

350 Special Readings (credit arranged) (V)

Prerequisite: Consent of instructor. Independent study through readings, reports and conferences.

366 Mathematical Psychology (3) (V)

Prerequisite: Psychology 219. The use of mathematical models in psychology.

Sociology and Anthropology

Program

The Department of Sociology and Anthropology offers work leading to the bachelor of arts in anthropology, bachelor of arts in sociology, bachelor of arts in sociology with an emphasis in social service, bachelor of science in the School of Education with an emphasis in social studies (see School of Education for details), and master of arts in sociology (see *Graduate Bulletin* for details).

Academic work in the department is offered with the following aims:

To prepare students for careers in social work and secondary education not requiring further graduate study, to prepare for graduate school students desiring to work professionally in sociology, anthropology, or social work, to provide grounding in the disciplines of sociology and anthropology as part of a liberal arts education for students going into professional schools such as law or medicine and for students going on to graduate school in other related fields such as urban studies, criminology, and population studies, and to provide for all students exposure to the social sciences as part of the necessary breadth required for a sound liberal arts education.

The faculty of the Department of Sociology and Anthropology is a cohesive group which has achieved a high degree of integration of the scientific and applied emphases within their disciplines. Addressing overall the operation of social forces affecting the individual, the department is committed to the study of those forces from a scientific point of view and stresses the importance of its majors getting first-hand exposure to these forces through community involvement. From the perspective of the liberal arts, the department attempts to cultivate in the student an appreciation of

both personal, institutional, and broadly cultural terms. It recognizes the role of its disciplines in examining and modifying cultural myths and in developing in the student a more modest yet understandable view of the human situation and the cultural and institutional context within which man lives.

The department stresses a scientific approach reflected in an emphasis on the development of adequate theoretical and methodological tools. In addition there is a strong emphasis on the applied uses of sociological and anthropological insights and methods which is given a distinctly urban thrust in all three of the department's fields: sociology, social work, and anthropology. Many faculty are engaged in research on urban-related issues and work with various urban agencies, particularly in the areas of crime, delinquency, social welfare, and education. Also a number of the faculty has appointments in the Center of Community and Metropolitan Studies and the Center for International Studies. This involvement tends to support a pattern of interdisciplinary cooperation on various research projects and academic concerns which is also demonstrated in the encouragement given departmental majors to strengthen their academic program by taking related area work in other social science disciplines.

Academic work and research in the department is further enhanced by the availability of the following resources:

The Quantitative Sociology Laboratory is equipped with a computer terminal, key punch, and several calculators. This equipment provides both faculty and students in the department with the facilities needed to perform a wide variety of types of data analysis and simulation procedures. The

Many faculty are engaged in research on urban-related issues and work with various agencies, particularly in the areas of crime, delinquency, social welfare, and education.

provide instruction in the use of the machinery and can assist students in the department's courses in quantitative techniques.

The Anthropology Laboratory has three related purposes: it is intended to help students in human origins to master anatomical and genetic concepts more fully than can be done through reading and lecture alone; to give students an opportunity to evaluate for themselves a little of the evidence for human evolution; and to provide some minimum facilities for research in physical anthropology. To achieve these purposes, the laboratory is staffed with assistants qualified to help students master the human origins course. The laboratory is equipped with skeletal materials for learning human and comparative anatomy, with materials for the study of elementary genetics, with a collection of excellent casts of some of the fossils which are important in the study of human evolution, and with anthropometric instruments for the study of growth and variations in humans.

The Undergraduate Sociology Teaching Laboratory contains a library consisting of books and journals available to students in the department. The room is designed as a center for undergraduates with flexible seating arrangements so it can serve a variety of needs. Personnel from the quantitative lab supervise this lab.

The Comparative Social Organization Laboratory houses specialized equipment such as audio-visual equipment, a tracing table, an assortment of maps, etc., to be used by students for a wide variety of projects. Storage and work space enable the lab to be used as a work center for class projects.

The Social and Behavioral Sciences

The anthropology laboratory is intended to help students studying human origins to master anatomical and genetic concepts more fully than can be done through reading and lecture alone.

Laboratory incorporates both small group interaction and simulation facilities, and provides consultation services, direct computer access, audio-visual, and closed circuit video facilities for teaching and research.

Students in the department may choose to major in anthropology, sociology, or sociology with an emphasis in social service. In each of these three areas a variety of approaches is represented in the department enabling the student to be exposed to coverage of the range of each discipline. To aid students in selecting a reasonable program of study each major is assigned a faculty adviser. Students are urged to consult with their faculty adviser early in planning their undergraduate program. There is, in addition, a general undergraduate adviser in the Department of Sociology and Anthropology who also serves as department ombudsperson, maintains student records, and is able to answer any questions concerning the program. The ombudsperson keeps regular advising hours. Each major should obtain a copy of the "Guide to Undergraduate Studies in Sociology/Anthropology" available from the adviser to familiarize the student with the degree program, rules, and regulations, and interests of the faculty members of the department.

Besides the degree programs, the Department of Sociology and Anthropology also offers a large number of general education courses. Several of the departmental course offerings are required courses in degree programs in the administration of justice and School of Education. Other course offerings enable students in related fields such as psychology, political science, and economics to become acquainted with multidisciplinary approaches to various substantive areas.

General Education Requirements

Students with undergraduate majors in the Department of Sociology and Anthropology must satisfy the general education requirements on page 32, and the requirements of the College of Arts and Sciences on page 44. Courses in sociology or anthropology may be used to meet the university's social science area requirements. Any foreign language may be used to meet the College of Arts and Sciences foreign language requirement. The non-Euro-American requirement may be met by any non-Euro-American course.

Majors may not take department courses which will apply toward their major on pass-fail. However, if a student desires to take more departmental courses than needed to fulfill the degree requirements, these additional courses may be taken on pass-fail.

Degree Requirements

Bachelor of Arts in Sociology

There are four core requirements for the major in sociology:

- 10 Introduction to Sociology (3)
- 110 Sociological Theory (3)
- 120 Quantitative Techniques (4)
- 130 Research Methods (4)

These courses reflect the strong scientific approach of the department and introduce the student to the scientific study of sociology and institutions. The courses provide the conceptual and methodological tools with which to understand sociological realities. Basic social theories, concepts, and principles are introduced, a wide range of methods and techniques for generating and interpreting sociological and anthropological data are provided. These courses provide the overall framework for the student's further study in the department.

After completing this core of study the student then goes on to advanced course work within his or her respective major. Within the major students generally range rather broadly within the discipline and in related areas to construct a program tailored to their own interests and vocational plans. Most students do not concentrate on any one area within the discipline.

In addition to the above 14 hours, at least 18 hours of major elective credit selected from departmental courses must be taken. Of the 18 hours no more than three hours in sociology and no more than three hours in anthropology under the 100 level will be counted toward the 18 elective hours, and at least three credit hours must be taken on the 300 level in sociology. Sociology 350 (Special Study) cannot be used to satisfy this requirement for a 300-level course.



The Department of Sociology and Anthropology attempts to cultivate in the student an appreciation of what it means to live as a social creature in both personal, institutional, and broadly cultural terms.

taking 200-level courses in sociology. This 100-level prerequisite may be taken concurrently with a 200-level course provided that it is Sociology 110, 120, or 130. Majors must take two of the following: Sociology 110, 120, or 130 before taking a 300-level course in sociology.

The elective courses enable the student to become familiar with some of the substantive areas within the field. Selection of these electives will generally be based on a student's particular interests. Advisers can be very helpful in recommending appropriate courses that would be of interest to an individual student and would balance the student's knowledge of the field. Applied training through one or more practicum courses relevant to a variety of potential career choices may be taken as part of these 18 hours of elective credit.

Students may take more than 18 hours of electives but they cannot exceed 45 hours (including required courses) of sociology credit. Credits above 45 hours will not count as part of the 120 hours needed for graduation.

Related Area Requirement

Sociology majors should take at least six credit hours in one or more of the following areas: economics, political science, philosophy, and psychology. All sociology majors expecting to continue their studies in graduate school are strongly advised to be well prepared in mathematics, computer science, and philosophy of science.

Bachelor of Arts in Sociology with Emphasis on Social Service

This program reflects the growing urgency being expressed by tax-supported social services and private social agencies to recruit better prepared beginning practitioners who

social sciences coupled with some direct exposure to the social service delivery systems. Civil service requirements and job descriptions assume the need for understanding facts, theories, and concepts which underlie rational efforts to design institutional facilities to help large segments of the population cope with the on-going demands of an urban society, or to respond to the personal crises of individuals and families.

Students majoring in the social service emphasis will be prepared to enter professional schools of social work looking toward eventual careers in supervision, administration, and research, or they should be able to qualify for immediate beginning positions such as those in hospital social service departments, public welfare, community mental health, services to the aging, day care centers, social security offices, and recreational services. For students intent on entering a particular kind of agency service, social work faculty can help advise concerning relevant substantive courses; more often students will probably elect a curriculum suited to a social work generalist.

The core requirements are:

- Sociology
 - 10 Introduction to Sociology (3)
- Social Work
 - 100 Introduction to the Human Services (3)
- Sociology
 - 110 Sociological Theory (3)
 - 120 Quantitative Techniques (4)
- Social Work
 - 200 Social Welfare as an Institution (3)
 - 210 Interventive Strategies with Individuals and Small Groups (3) or

Sociology

130 Research Methods (3)

Social Work

320A Practicum in Supervised Field Experience and Operational Research (4)

At least nine additional hours of major electives must be selected from departmental courses in social work or sociology. Social service majors are strongly urged to include among these electives Social Work 320B, Practicum in Supervised Field Experience and Operational Research.

Related Area Requirements

The following related area courses are required:

Psychology 1 and 2

Sociology 160 or Psychology 160 - Social Psychology

Political Science 11 or Economics 40

Anthropology, Biological science and Spanish are strongly advised by schools of social work.

Bachelor of Arts in Anthropology

Completion of the following core of courses provides the student with a minimum background in scientific method and techniques in anthropology and introduces the two postulates which differentiate anthropology from the other social sciences. First, that man is an animal (albeit a very distinctive one) with an evolutionary history which is a major factor in his nature. Second, that human social behavior cannot be fully understood without cross-cultural comparisons.

The following courses are required for the major in anthropology:

Anthropology

5. Human Origins (4)

Sociology

120 Quantitative Techniques (4)

Anthropology

325 Comparative Social Organization (3)

381 Theories of Anthropology (3)

291 Senior Seminar (3)

In addition, the student is required to complete one course in philosophy chosen from Philosophy 160, 250, or 255 prior to the student's enrollment in Anthropology 291, Senior Seminar.

For completion of the major the student must take at least 12 credit hours of electives from courses offered by the Department of Sociology and Anthropology. The total number of elective anthropology credits may not exceed 25 of which no more than three credit hours may be from courses numbered less than 100. Elective courses in excess of 25 hours may not be counted as any part of the 120 credit hours required for graduation.

Electives are chosen by the student in terms of interests and educational goals. Each student is assigned an adviser who is available to help the student in selecting appropriate electives to meet educational goals. Those who plan to do graduate work in anthropology should plan their entire programs in consultation with their faculty advisers to be sure of having appropriate courses in other departments. Those who do not plan on getting a graduate degree will also find that their advisers can be very helpful in planning a course of study.

**Sociology and Anthropology
Faculty****Sociology**

Harry H. Bash, Ph.D.
University of Pennsylvania chairman,
assistant professor

K. Peter Etzkorn, Ph.D.
Princeton University professor

Jerome Himelhoch, Ph.D.
Columbia University professor

George J. McCall, Ph.D.
Harvard University professor

Solomon Sutker, Ph.D.
University of North Carolina professor

Sarah Boggs, Ph.D.
Washington University associate professor

Muriel Pumphrey, Ph.D.
New York School of Social Work associate
professor, social work

Sara Smith Sutker, Ph.D.
University of North Carolina associate professor

William Erickson, Ph.D.
University of Illinois assistant professor

Richard A. Ferrigno, Ph.D.
St. Louis University assistant professor

Norman Flax, Ph.D.
St. Louis University assistant professor, social work

Sherif el Hakim, Ph.D.
Johns Hopkins University assistant professor

Judith Handel, Ph.D.
University of California assistant professor

John Hepburn, Ph.D.
University of Iowa assistant professor

Herman W. Smith, Ph.D.
Northwestern University assistant professor

Nirannalathu Mathai Lalu, Ph.D.
University of North Carolina assistant professor

Anthropology
Lloyd Collins, Ph.D.
University of Arizona associate professor

Thomas H. Hay, Ph.D.
Michigan State University assistant professor

Stuart Plattner, Ph.D.
Stanford University assistant professor

S. J. Scheiner, Ph.D.
University of California assistant professor

**Sociology and Anthropology
Description of Courses****Sociology****10 Introduction to Sociology (3)**

Prerequisite: None. Sociology as an approach to social phenomena. Lecture and laboratory discussion format used for presentation of classic and contemporary models of social structure and processes. Fall 74, Winter 75.

30 Interpretation of Sociological Data (3) (F&W)

Prerequisite: Sociology 10. An introduction to the understanding of sociological research. Emphasis would be placed on how research is conducted and on how to read and interpret data analysis. This would be done in a non-technical fashion. Sociology majors cannot receive sociology credit for this course.

45 Race (3)

Same as Psychology 45 and History 45 and Anthropology 45. Prerequisite: 12 hours of college course credit. Origins and functions of conceptions of race. Biological and social definitions of race; the function of racial ideologies for societies; social, historical and psychological bases of racism in the U.S.; the consequences of racism for the individual and societies.

65 The University (3)

See Interdisciplinary Course 65.

75 Crime and Punishment (3) (W)

See Administration of Justice 75, Psychology 75, Anthropology 75. Prerequisite: None. An introduction to sociological and psychological explanations of crime and punishment. An examination of private and governmental responses to the threats of crime and delinquent behavior.

77 Third World Development (3)

See Political Science 77, Sociology 77, Anthropology 77. Prerequisite: None. An interdisciplinary course concerned with the process of development and underdevelopment in the modern world. We will focus upon the internal structures of societies, the effects of foreign policies, and cooperative and coercive international relations as they have affected developing nations. The loss of many valuable aspects of life that has accompanied previous patterns of development will be examined in light of the possibility of alternative strategies.

90 Freshman Seminar (3)

Prerequisite: Freshman standing and consent of instructor. Topics to be announced. Weekly seminars supplemented by individual conferences. Limited to 12 students.

99 The City (3)

Same as Administration of Justice 99, History 99, Political Science 99 and Economics 99. Prerequisite:

Consideration of economic factors, urban institutions, historical developments in urbanization, problems of the inner city, suburbia and the metropolitan area, ethnic groups, stratification and psychological implications of urban living.

105 Group Prejudice and Minority Identity (3)
Same as Psychology 105. Prerequisite: Psychology 1 and 2 or Sociology 10. The psychological and sociological study of determinants of identity formation and transformation among minority groups.

106 Development of Social Thought (3) (F)
Prerequisite: Sociology 10. The antecedents of sociological theory, as traced through social thought traditions until the time of Comte.

110 Sociological Theory (3) (F&W)
Prerequisite: Sociology 10. The nature of sociological theory. An investigation of theory from Comte through contemporary developments. Contributions made by theorists in related disciplines.

120 Quantitative Techniques in Sociology (with Laboratory) (4) (F&W)

Prerequisite: Sociology 10 and satisfaction of math proficiency requirement. Issues and techniques of statistical analyses, e.g., probability theory, measurements of central tendency and dispersion, techniques of statistical inference, hypothesis testing, chi square test, F-ratio correlation and multiple regression analyses, non-parametric statistics.

130 Research Methods (4) (F&W)
Prerequisite: Sociology 10. Research planning; the collection, analysis and presentation of data. Course includes practical experience in the conduct of a research project.

160 Social Psychology (3)
Same as Psychology 160. Prerequisite: Sociology 10 or Psychology 2. Study of the interaction between the individual and his social environment. Examination of basic principles, concepts, methods.

Note
Any 200-level course taken for *major* elective credit requires prior completion of a 100 level course. If the 100 level course is 110, 120 or 130 it may be taken concurrently with a 200 level course.

200 Sociology of Deviant Behavior (3) (F&W)
Prerequisite: Three hours of Sociology or Anthropology. Theories of the nature, causes and control of deviance as a generic phenomenon. Application of theories to specific types, such as mental disorder, delinquency, drug abuse, suicide and

202 Urban Sociology (3) (F&W)
Prerequisite: Sociology 10 or consent of instructor. Urbanization as a world phenomenon; ecological, demographic and social structural approaches to the urban community.

214 Juvenile Delinquency and Youth Crimes (3) (F&W)

Prerequisite: 3 hours of 100 level Sociology. A theoretical and research-oriented approach to delinquency and youth crime, including types, trends, causation, correction and prevention.

218 Social Choice in Political-Economic Systems (3)

Prerequisite: Two courses in Economics, Political Science or Sociology. Same as Economics 218, Political Science 218. A study of the mechanisms of social choice from the standpoint of individual and political party maximization of personal objectives. This area draws on work done by sociologists, political scientists and economists.

224 Sociology of the Family (3) (F&W)

Prerequisite: Sociology 10. Universal and variable aspects of family organization, family role systems, changes in family social structure.

234 Political Sociology (3)

Same as Political Science 234. Prerequisite: Sociology 10 or Political Science 11. The analysis of power as a social phenomenon. The processes of legitimizing power and instituting authoritative structures. Stabilizing of social control and social integration at various levels of social and political organization.

238 Medical Sociology (3)

Prerequisite: Sociology 10. The application of sociology to the field of health. Social elements of the etiology of disease and its distribution. The sick role; doctor-patient relationships and the social organization of hospitals and medical careers.

256 Sociology of Education (3) (F)

Prerequisite: Sociology 10. Education as a social institution, its role as an agent of socialization and its effect upon the processes of social change and social mobility. The relationship between the school and its community.

260 Social Interaction in Small Groups (3) (F)

Prerequisite: Sociology 160 or Psychology 160. Analysis of human interaction with emphases on group problem solving, group structure and group process.

264 The Sociology of Religion (3)

Prerequisite: Sociology 10. The effect of religion upon the individual and society. The organization of religious enterprises.

270 Sociology of Socialization (3) (W)

Prerequisite: Sociology 10. Analysis of the structural and social psychological aspects of roles and the self as a product of social interaction.

278 Sociology of Law (3) (W)

Prerequisite: Sociology 10. A study of law and society with emphasis on the sociological analysis of specific problems of legal doctrines and legal institutions. The law is examined as an instrument of social control through study of the courts, the legal profession, the police and various social institutions. Consideration is given to law as an instrument of social change.

286 The Sociology of Art and Literature (3) (W)

Prerequisite: Sociology 10. The creative individual, his work and his public. Social pressures and rewards.

290a 290b 290c Undergraduate Seminar in Sociological Issues (3)

Prerequisite: Sociology 10 and consent of instructor. Consideration of an issue or area of the instructor's choice, not already covered by other undergraduate courses. May be taken up to three times for nine hours credit, provided the subject matter is different each time the seminar is taken.

298 Practicum in Field and Laboratory Research (1-3)

Prerequisite: Sociology 130. Intensive field or laboratory research to be taken subsequent to or concurrent with a specific substantive course. May be taken twice for credit.

Note

Any 300 level course taken for *major* elective credit requires prior completion of two of the following: Sociology 110, 120 or 130.

304 Survey Research Practicum (3) (W)

Same as Economics 304 and Political Science 304. Prerequisite: The execution of a sample survey, including establishing study objectives, sampling, questionnaire construction, interviewing, coding, data analysis, and presentation of results.

312 Social Stratification (3) (F)

Prerequisite: Sociology 10; junior standing or consent of instructor. Theories of social stratification and an examination of current research. Changes in the occupational and hierarchical structure of contemporary society.

of instructor. The relationship between structural changes and alterations in culture. The individual, the group and the collectivity as agents of change.

316 Ideology and Social Movements (3) (W)

Prerequisite: Either Sociology 146, 234 or 314. Effect of events and social processes on thought and action in the twentieth century. Social functions of ideologies as expressed in movements and formal and informal organizations seeking social change.

326 Criminology (3) (F&W)

Prerequisite: Sociology 200, 214 or 6 hours of Sociology Anthropology. Crime as a social phenomenon. Theory and research concerning the causes of crime.

327 Fieldwork in Anthropology (3)

Same as Anthropology 327 and Sociology 327. Prerequisite: 9 hours of Anthropology or Sociology or consent of instructor. An introduction to anthropological fieldwork in complex societies emphasizing participant observation, interviewing and use of key-informants. Attention will be given to theoretical considerations and problems of method as well as to the application of these techniques in actual fieldwork. Current issues in the ethics of field research and action anthropology will be discussed.

328 Institutions and the Control of Crime & Delinquency (3) (F)

Prerequisite: Sociology 214 or 326. Institutional responses to crime and delinquency. Theories and programs of rehabilitation and punishment. Organizational conditions affecting behavior of correctional personnel.

330 Field Research in Criminology (2-4)

Prerequisite: Sociology 130 and 214 or 326 or their equivalent. Students will participate in individual or group research projects involving systematic data collection and sociological analysis concerning the causation or societal reaction to crime, delinquency or related forms of deviance. One option available to students will be an opportunity to study organizations dealing with juvenile or adult offenders.

336 Complex Organizations (3) (F)

Prerequisite: Sociology 10; junior standing or consent of instructor. The structural characteristics of complex organizations and the informal substructures that evolve within. Rational and natural-system models. Pressures toward equilibrium and change.

342 Demography (3) (F)

Prerequisite: Sociology 10; junior standing or consent of instructor. Sociological aspects of theories relating

planning and urbanism and demographic aspects of Western and non-Western cultures.

344 Problems of Urban Community (3) (W)
Prerequisite: Sociology 10; junior standing or consent of instructor. The urban community as an area of social action and problem-solving with emphasis on the sociological aspects of urban problems.

346 Demographic Techniques (3) (W)
Prerequisite: Sociology 120 or equivalent. This course is designed to familiarize students with the research techniques used in population analysis. Topics included are: appraisal or census and vital data; measurement or mortality, fertility, and migration; standardization; construction of life tables; and population projection.

350 Special Study (credit arranged)
Prerequisite: Consent of the instructor. Independent study through readings, reports or field research.

352 Advanced Principles of Sociology (3)
Prerequisite: Sociology 10; junior standing or consent of instructor. Analysis of the main concepts and principles of sociology and survey of sociology as a social science.

354 Sociology of Work (3)
Prerequisite: Sociology 10; junior standing or permission of instructor. The social nature of work; the work plant as a social system; occupational role behaviors, including deviant occupations; the socialization of the worker; determinants of occupational behavior in American and other societies; social problems of work; the impact of the community on work behavior.

360 Sociology of Minority Groups (3) (W)
Prerequisite: Sociology 10; junior standing or consent of instructor. The study of dominant-subordinate group relations. Religion, ethnicity and race as factors affecting conflict, competition, accommodation and assimilation.

377 Personality and Culture (3)
Prerequisite: Sociology 10; junior standing or consent of instructor. Analysis of behavior from the standpoint of interaction between psychological systems, sociological systems and cultural systems.

378a 378b Selected Topics in Social Psychology (3) (W)
Prerequisite: Sociology 160 or Psychology 160 and consent of instructor. Focused examination of selected issues, concepts and methods in the study of social interaction.

394 Methods in Theory Construction (3) (W)
Prerequisite: Sociology 110 or consent of instructor. An in-depth comparison of selected techniques of theory building and testing. Verbal and/or mathematical formalization of selected sociological examples of theory will be the central activity.

Social Work

100 Introduction to the Human Services (3) (F&W)
Prerequisite: Sociology 10 or Psychology 1. An examination of the network of health, mental health, recreational, rehabilitative, income maintenance, community action and preventive programs presently operating in modern urban communities to help individuals and families cope with their social needs. The contributions of the various helping professional and paraprofessional personnel will be reviewed in relation to possible future career choices.

200 Social Welfare as a Social Institution (4) (F&W)
Prerequisite: Sociology 10 or Psychology 1, Social Work 100. A study of the development of social welfare services and the social work profession, including major policy alternatives and the philosophy and the ethics underlying present practices and systems. Current issues will be seen in the light of long term trends, such as the selection of target groups, sponsorship and financing, manpower needs and the relationships with other social institutions. A laboratory period will be used for field trips to social agencies.

210 Interventive Strategies in Social Work With Individuals and Small Groups (3) (F)
Prerequisite: Social Work 200 and Sociology 160 or Psychology 160. A presentation of basic knowledge, skills, and theories used in social work practice, such as problem identification, interviewing, crisis intervention, milieu therapy, ego support, teaching, interpersonal skills, group therapy, use of community resources and evaluation of progress. Socio-cultural factors affecting the delivery of services and the various helping roles a social worker might assume will be identified and illustrated by role play and demonstrations by experienced social workers.

220 Social Issues and Community Organization (3) (F&W)
Prerequisite: Social Work 200 and Sociology 160 or Psychology 160. The identification of public issues in relation to society as a whole with a consideration of alternatives for stimulating wide participation in community planning and social action to solve such problems. Methods of inducing citizen action will be discussed.

300a 300b Interventive Strategies in Social Work Practice with Vulnerable Populations (3) (W)
Prerequisite: Social Work 210 or 220. An advanced course in social work methods which considers how social work skills may be applied in work with specific client groupings. During one semester, emphasis will be placed on groups with situational and developmental problems such as the physically ill and handicapped, the unemployed, the aging, dependent children, school drop-outs, single person families. In the next semester treatment of persons with markedly deviant behavior will be considered such as adult and juvenile offenders, the mentally ill, child abusers, alcoholics, children with school phobias. (Credit may be given for both A & B).

320a 320b Practicum in Supervised Field Experience & Operational Research (4) (F&W)
Prerequisite: Social Work 210 or 200 and Social Work 300. Participation as a staff worker in the service programs at an agency selected by the student from a wide variety of approved settings. Students work two days per week with a biweekly seminar. With the instructor's permission both sections of this course might be taken together in a specially arranged "block" placement four days per week in one semester. (Credit may be given for both A & B).

350 Special Study (Credit arranged)
Prerequisite: Consent of Instructor. Independent study through advanced readings in method and philosophy on a topic of particular interest, or field research in an agency.

380 Seminar in Social Work Issues (3) (F&W)
Prerequisite: Consent of Instructor. Current and future policy considerations in designing and implementing social work service delivery arrangements. Issues will be selected according to the interests of the class.

Anthropology

5 Human Origins (4) (with laboratory) (F&W)
Prerequisites: None. A survey of the field of physical anthropology with emphasis upon the development of man as an animal. Will consider the genetic forces of evolution, fossil men, race formation, and the origin of culture from a scientific point of view.

11 Man, Culture and Society (3) (F&W)
A survey of types of societies--bands, tribes, chiefdoms, states and peasantry, and of selected aspects of culture and social structure. Introduction to linguistics, social and cultural anthropology as scientific disciplines.

45 Race (3)
Prerequisite: 12 hours of college course credit. Origins and functions of conceptions of race. Biological and social definitions of race; the function of racial ideologies for societies; social historical and psychological bases of racism in the U.S.; the consequences of racism for the individual and societies.

51 Introduction to Anthropological Linguistics (3)
Relation between man and language in synchronic and historical perspective. The design features of language equality, diversity, and relativity in structures and functions of language, including non-western languages.

90 Freshman Seminar (3)
Prerequisite: Freshman standing and consent of instructor. Topics to be announced. Weekly seminars supplemented by individual conferences. Limited to 12 students.

201 Cultures of Middle America (3)
Prerequisite: Anthropology 11 or consent of the instructor. An introduction to Mexico and Central America from an anthropological point of view. The evolution of the indigenous civilizations of the Aztec and Maya, of the conquest and colonial experiences, and the development of modern communities.

203 Cultures of South Asia (3)
Prerequisite: Anthropology 11 or consent of the instructor. A survey of the cultures of South Asia including the prehistory of the area, the ethnographic and linguistic groupings and the social organization and cultural systems of these groups. This course satisfies the non-Euro-American requirements of the College of Arts and Sciences.

205 Cultures of Southeast Asia (3)
Prerequisite: Anthropology 11 or consent of the instructor. A survey of the cultures of Southeast Asia.

satisfies the non-Euro-American requirement of the College of Arts and Sciences.

207 Cultures of Native North America (3) (F)
Prerequisite: Anthropology 11 or consent of the instructor. A survey of the aboriginal cultures of North America including prehistory of the area, the ethnographic and linguistic groupings, and the social organization and cultural systems of these groups.

227 Urban Anthropology (3) (W)
Prerequisite: Anthropology 11. A comparative analysis of the cultural roles of urban centers and the processes of urbanization in non-western and western societies, past and present. A consideration of urban influences on rural America and the traditional peasant and primitive peoples of Africa, Asia and Latin America.

243 Economic Anthropology (3)
Prerequisite: Anthropology 11 or consent of instructor. An introduction to the range of economic organizations found in the world. Anthropological models of productions and exchange. The notion of "rationality" as applied to non-Western economic systems. The contribution of anthropology to the understanding of economic development.

245 Political Anthropology (3)
Prerequisite: Anthropology 11 or consent of instructor. A review of the pertinent literature on the political process in native and non-Western societies with emphasis upon local-level politics in traditional modern interface of emerging nations.

253 Contrastive Analysis (3)
Prerequisite: Anthropology 51 or consent of instructor. Examination of two models-structural linguistics and transformational grammar for the purpose of formulating a contrastive grammar of a western and non-Western language.

265 Religion, Magic and Science (3)
Prerequisite: Anthropology 11 or consent of the instructor. A survey of supernatural elements of cultural systems and the place of religion in human societies with emphasis upon non-Western, traditional societies.

277 The Mind of Man: Culture and Cognition (3) (F)
Prerequisite: Anthropology 11 or consent of instructor. An introduction to psychological anthropology focusing on cultural influences on cognition and perception. Theories of "primitive mind" will be reviewed in historical perspective, and cross-cultural research in perception, learning and

their implications for education explored.

291 Senior Seminar
Prerequisite: Anthropology 381, senior standing. A continuing investigation of the problems anthropologists choose to explain, the ways they go about explaining these issues, and the procedures used to examine anthropological explanations.

325 Comparative Social Organization (3) (F)
Prerequisite: Anthropology 11 or consent of instructor. The range and variation of societal organization primarily in non-Western cultures, Processes of system maintenance and change.

327 Fieldwork in Anthropology (3) (W)
Prerequisite: 9 hours of Anthropology or Sociology or consent of instructor. An introduction to anthropological fieldwork in complex societies emphasizing participant observation, interviewing and use of key-informants. Attention will be given to theoretical considerations and problems of method as well as to the application of these techniques in actual field-work. Current issues in the ethics of field research and action anthropology will be discussed.

335 Culture Change (3) (F)
Prerequisite: Anthropology 11 or consent of instructor. An intensive investigation into the elements and processes of culture change with regard to specific theories of culture change. The course examines the relationship between microchange in primitive and modern complex societies.

337 Applied Anthropology (3) (W)
Prerequisite: Anthropology 335 or 361. A description and analysis of the methods, principles and use of anthropology in solution of practical problems associated with the changing conditions of our time. The course will examine a wide variety of cross-cultural case studies.

345 Language and Culture (3) (F)
Prerequisite: Anthropology 11 or consent of the instructor. The relationship between language and culture. Works of Sapir, Whorf, Lee and others will be considered.

346 Grammatical Theory (3)
Prerequisite: One course in linguistics or consent of instructor. Linguistic analysis of syntax including introduction into formal structures of symbolic, social and cultural behavior.

350 Special Study (credit arranged)

377 Culture and Personality (3) (W)

Prerequisite: Sociology 10 or Anthropology 11 or 3 hours in psychology and junior standing or consent of instructor. Analysis of behavior from the standpoint of interaction between psychological systems, sociological systems and cultural systems.

381 Theories of Anthropology (3) (F)

Prerequisite: Anthropology 11 or consent of instructor. An introduction to the various developments in theoretical anthropology through a reading of source material.

391 Current Issues in Anthropology (1-4) (F&W)

Prerequisite: Anthropology 11 or consent of instructor. Selected topics in social, cultural, and physical anthropology, with emphasis on current issues and trends in the field of anthropology. May be repeated.

Preprofessional Programs

Many students who attend UMSL are interested in professional careers in such fields as engineering, dentistry, journalism, law, medicine, and pharmacy. Although UMSL does not offer a specific preprofessional major in any of these areas, a student may develop a very satisfactory preprofessional program of study utilizing the academic offerings available at UMSL. With early and careful advising, the student may develop a lower-division (freshman/sophomore) program of study in preparation for transfer into a professional program in the junior year, or he or she may select a major field of study and related area courses which will constitute a very strong undergraduate preparation for graduate professional study. It must be stressed however, that the student should seek a preprofessional faculty adviser in the area of his or her interest early in the academic career in order to insure the development of a sound, comprehensive program of study in keeping with the interests and level of ability and the admission requirements of the professional program to which he or she applies. The following information on preprofessional study at UMSL is provided to give the student some minimal guidelines and assistance in designing a program of study.

Preengineering

The Preengineering program at UMSL provides for a solid scientific base through area requirements in mathematics, chemistry, physics, and communications. Flexibility is built into the program through the engineering, science and communications electives. Students who have chosen a specific engineering discipline must choose these electives in consultation with advisers, so that they may transfer to engineering college beginning their junior year. Ordinarily, this transfer can be effected without loss of credit and with full standing. Alternatively, students can remain at UMSL to pursue bachelor of science degrees in pure science or in an applied area of physical mathematics or chemistry. It is important to bear in mind that hard career decisions are not necessary during the first two years. The built-in flexibility encourages students to experiment with various areas in engineering and applied science in order to find the most appropriate and rewarding directions to suit their talents. Specific inquiries regarding the preengineering program should be addressed to:

Director, Preengineering Program
Department of Physics
University of Missouri-St. Louis
8001 Natural Bridge Road
St. Louis, Missouri 63121
Telephone: (314) 453-5934

In addition to the general education requirements, prospective preengineering students are required to take a mathematics placement test in the spring of the academic year prior to enrollment. This test is administered at UMSL. Additional information may be obtained from the Office of Admissions. Students whose test results indicate inadequate preparation in mathematics are strongly urged to take Math 40 in the summer session prior to

Although UMSL does not offer degrees in engineering, dentistry, journalism, law, medicine, or pharmacy, a student may develop a satisfactory preprofessional program utilizing the academic offerings available.

Although UMSL does not have a required pattern of high school units for admission it is recommended that students who plan to pursue a preengineering program complete at least three units of high school mathematics including units of algebra (excluding general mathematics) and trigonometry. Calculus, if available in the high schools, is recommended.

Required Curriculum for Freshmen and Sophomores

A total of 66 hours is required in the preengineering program including:

- 111 Introductory Chemistry
- 112 Introductory Physics
- 113 Foundations Modern Physics
- 114 Mechanics and Heat
- 115 Electricity, Magnetism and Optics
- Mathematics
 - 80 Analytic Geometry and Calculus I
 - 175 Analytic Geometry and Calculus II
 - 201 Analytic Geometry and Calculus III
 - 302 Applied Mathematics

Communication
Math 122 Fundamental Computer Programming
English 10 Composition
Three hours electives

Engineering and Science
12 hours electives

Humanities and Social Science
12 hours electives

Prejournalism

UMSL does not offer a degree program in journalism. Students who wish to pursue a journalism degree should consult the school(s) to which they plan to apply to get information on suggested prejournalism courses of study.

Students who wish to work toward a degree in journalism at the University of Missouri must complete their junior and senior years at the School of Journalism at the University of Missouri - Columbia. Of the 60 hours to be taken at UMC, approximately 30 will be devoted to journalism courses with the remaining 30 hours as electives in other disciplines.

For entrance, the student must present to the School of Journalism 60 credit hours (exclusive of physical education) with a cumulative grade point average of 2.25 on work completed after October 1, 1972, and a grade point average of 2.5 on work completed after October 1, 1973. Satisfactory completion of an entrance test may be required.

The following studies are mandatory for entrance to the School of Journalism:

Foreign Language: Completion of a reading course beyond the equivalent of the intermediate level (generally 12 to 13 hours.) Completion of the 101 level courses will satisfy the language requirement. Students with four or more high school units in one foreign language will have fulfilled this requirement.

Physical, Behavioral, or Biological Science: Four hours credit, including one hour of lab; or Mathematics 30 will satisfy the requirement.

General Economics: Three hours credit. Economics 50 or 51 will satisfy the

American Government: A minimum of three hours credit. Political Science 11, Government in Modern Society, will satisfy the requirement.

Literature: Six hours credit, at least three of which must be in the English language. Literature 12, Literary Types; Literature 131, English Literature; or Literature 132, English Literature II, will satisfy the requirement.

English Composition: The completion, with a grade of B or higher, of English 160, Advanced Expository Writing; or English 65, Honors Exposition; or the equivalent of English 160. The equivalent of English 160 completed with a C average will be accepted if there is a satisfactory grade on the English proficiency examination.

Recommended but not required for entrance into the UMC School of Journalism are courses in American history, general sociology, general psychology, introduction to philosophy, principles of marketing, elementary accounting, college algebra, and elements of college mathematics.

For additional information, or prejournalism advising, contact Spencer Allen, director, Urban Journalism Center, Phone: 453-5485.

Prelaw

There is no single series of courses at UMSL which can properly be designated a prelaw program. Requirements for admission to any particular law school will be found in the catalogue (or official bulletin) of that law school. With few exceptions, admission to most accredited law schools is limited to holders of the bachelor's degree who, as early as possible in their senior year, take the Law SAT examination administered by the Educational Testing Service.

It is clear that, in the admissions process, law schools are searching primarily for candidates who have demonstrated not only a well-rounded educational background but also some evidence that they have grasped well the ability to be analytical and critical, to think clearly, and to be able to articulate their thoughts. For some students, this may lead to majors which will contain room for excellent grounding in various fields of political science, in English and American history, constitutional history and law, jurisprudence, or administration of justice. But it is clear that law schools have been equally interested in undergraduates who have chosen to concentrate in such fields as business, English, philosophy, psychology, mathematics, and other fields which, to the uninitiated, seem hardly related to legal studies.

Law schools, basically post-undergraduate schools whose methodology is totally unlike that of the undergraduate college, are, in effect, searching for the type of student who throughout a collegiate career can demonstrate that he or she knows how to work and is capable of achieving excellence in academic work.

Most law schools would hardly admit to a minimum grade-point average for admission but most of them are not interested in the student who is satisfied with a C average of

Early and careful planning with a preprofessional adviser is necessary to insure the development of a sound comprehensive program of study in keeping with the student's interest and admission requirements of the professional program.

slightly above. Almost all law schools will use as a portion of their process of analysis of candidates for admission both the cumulative grade average through at least the first three years as well as the grade achieved on the Law SAT examination. Since admission requirements and fees vary from one law school to another, students are urged to begin as early as possible in their collegiate careers to investigate both of these areas.

Despite its relative youth, UMSL has had success in placing its graduates in law schools throughout the country, including a number of the so-called "prestigious" institutions. Each law school handles its own financial aid programs, including loans, and the undergraduate is well-advised to consider the financing of a legal education as he or she works his or her way through a collegiate career. Although UMSL does not have a law school, the University of Missouri provides such training at its law schools at Columbia and Kansas City.

The prelaw adviser maintains a reasonably complete and up-to-date set of law school catalogs, information on the Law School Admission Test, and other information which is available for the use of individual students. For further information and for specific prelaw advising, contact Professor Harry Mellman, Prelaw Adviser, Department of Political Science, phone: 453-5521.

Premedical Sciences Program

UMSL does not award a bachelor of arts with a major in premedical sciences. Students desiring to enter medical schools, dental schools, or schools of veterinary medicine should pursue A.B. degrees with majors in the discipline of their choice, but they should elect to take whatever additional courses may be necessary for admission.

Many medical, dental, and veterinary schools recommend the following undergraduate courses:

Biology
10 Introductory Biology
224 Genetics
as well as additional courses in development and/or physiology.

Chemistry
11 Introductory Chemistry I
12 Introductory Chemistry II
261 Structural Organic Chemistry
262 Organic Reactions
263 Techniques of Organic Chemistry

Mathematics through calculus

Physics
11 Basic Physics
12 Continuation of Basic Physics
(total 8 hours).

There is considerable variation in the admission requirements of professional schools and prospective applicants are urged to consult the catalogs of the institutions to which they intend to apply.

Updated information may be found in the bulletin *Medical School Admission Requirements* for the current year (United States and Canada) available from the Association of American Medical Colleges, One Dupont Circle, N.W., Washington, D.C. 20036 at \$4.00 per copy. The Office of the

Dean, College of Arts and Sciences has an examination copy for use within the office.

Since students will normally apply to professional schools during their junior year, and since admission to professional schools will not be confirmed until after successful completion of the science requirement for admission, students are encouraged to fulfill their science requirements before the end of their junior year. In order to complete the requirements by this time, premedical students will normally take Chemistry 11, Introductory Chemistry 1 and Chemistry 12, Introductory Chemistry 11 during their freshman year.

Each year the number of applicants to schools of health professions greatly exceeds the number of available places. Students interested in health care professions are urged to have alternate plans should they be unable to gain entrance to a school in their preferred field. Pharmacy, nursing, optometry, and laboratory technology may be considered as alternative fields.

For additional information, or premedical advising, consult the Biology Department, 326 Stadler Hall, phone: 453-5811.

Prepharmacy Program

Admission to a school of pharmacy usually requires one or two years of college work in specified areas. Most colleges of pharmacy recommend the so-called 2-3 plan which includes two years of college work followed by three years of professional courses in the college pharmacy. Entrance requirements vary somewhat from college to college, and students taking preprofessional courses on this campus are advised to consult the catalog of the college of pharmacy to which they expect to apply.

The following is a typical two-year sequence in prepharmacy and meets the requirements for admission to the School of Pharmacy of the University of Missouri-Kansas City and the St. Louis College of Pharmacy.

Freshman Year

First Semester:
 Chemistry 11 Introductory Chemistry I (5)
 Mathematics 40 Precalculus Mathematics (4)
 English 10 Composition (3)
 Physics 11 Basic Physics (4)
 Total 16 hours

Second Semester
 Chemistry 12 Introductory Chemistry II (5)
 English 12 Literary Types (3)
 Physics 12 Basic Physics (4)
 Elective* (3)
 Total 15 hours

Sophomore Year

First Semester
 Chemistry 261 Structural Organic Chemistry (3)
 Chemistry 263 Techniques of Organic Chemistry (2)
 Biology 10 Introductory Biology (5)
 Electives* (6)
 Total 16 hours

Second Semester
 Chemistry 262 Organic Reactions (3)
 Biology Elective (5)
 Electives* (6)
 Total 14 hours

*Courses in statistics, psychology, speech, economics, and accounting are among those most frequently required.

For additional information, or prepharmacy advising, contact the Chemistry Department, 430 Benton Hall, phone: 453-5311.

Interdisciplinary Courses

In addition to regular departmental offerings, the College of Arts and Sciences also offers several interdisciplinary courses. These courses bring together the resources of two or more disciplines to focus on a topic which benefits from being studied from the point of view of more than one discipline. In many cases faculty from several different departments teach an interdisciplinary course together, thus giving the student the opportunity to experience faculty dialogue on issues in a cross-disciplinary fashion. Most of these courses have no prerequisites. Freshmen and sophomore students especially are encouraged to enroll in interdisciplinary courses.

Prerequisites may be waived by consent of instructor.

45 Race (3) (V)

(See Anthropology 45, History 45, Psychology 45, or Sociology 45) Origins and functions of conceptions of race, biological and social definitions of race; the function of racial ideologies for societies; social, historical and psychological bases of racism in the U.S.; and the consequences of racism for the individual and societies.

50 Women (3) (F&W)

(Social Science Credit) Prerequisite: None. An interdisciplinary study of the role of women in the family and in society. Areas of coverage will include the biological, psychological, anthropological, economic, social, political-legal, and historical.

65 The University (3) (F)

(Social Science Credit) Prerequisite: None. An interdisciplinary course on the principles, development, and organizational structure of the University. Special emphasis will be placed on the role of the University in modern society and upon forces affecting the direction of the University and its potential for change. Methods include outside speakers, discussion groups and laboratory research on UMSL.

70 Issues in Contemporary Religious Thought (3) (W)

(Humanities Credit) An examination of selected current social, moral and ethical problems as viewed by representatives of major schools of religious thought.

75 Crime and Punishment (3) (V)

Sociology 75, Anthropology 75. (Social Science Credit) Prerequisite: None. An introduction to sociological and psychological explanations of crime and punishment. An examination of private and governmental responses to the threats of crime and delinquent behavior.

77 Third World Development (3) (V)

See Political Science 77, Sociology 77, Anthropology 77. (Social Science Credit) Prerequisite: None. An interdisciplinary course concerned with the process of development and underdevelopment in the modern world. Focus will be upon the internal structures of societies, the effects of foreign policies, and cooperative and coercive international relations as they have affected developing nations. The loss of many valuable aspects of life that has accompanied previous patterns of development will be examined in light of the possibility of alternative strategies.

99 The City (3) (F&W)

See Administration of Justice 99, Economics 99, History 99, Political Science 99, Psychology 99 or Sociology 99. Prerequisite: 12 hours of college credit. An interdisciplinary course. Consideration of economic factors, urban institutions, historical developments in urbanization, problems of the inner city, suburbia and the metropolitan area, ethnic groups, stratification and psychological implications of urban living. This course is primarily for freshmen and sophomores. It is open to juniors and seniors only with the instructor's permission.

101 Confusion to Chaos in the American Experience (3) (W)

Same as History 101 and English 101. Prerequisite: None. Selected topics in American History and literature from the colonial period to the present.

102 Ethnic Cultures in America: Their History and Literature (3) (F)

See History 102 and English 102. Prerequisite: None. The course traces the history of the settlement of European Jewish, German, Italian, Irish, and Negro groups in America. It will emphasize the problems of assimilation as they are reflected for each group in appropriate literary forms.

Literature in Translation

The following courses offered in the Department of English and in the Department of Modern Foreign Languages and Literatures do not require a reading knowledge of any foreign language. All may count toward fulfillment of the humanities requirement.

For additional information, consult the department mentioned in individual description. Prerequisites may be waived by consent of department.

110 Masterpieces of French Literature in Translation (3)
(See French 110)**110 Masterpieces of German Literature in Translation (3)**
(See German 110)**110 Russian Literature in Translation (3)**
(See Russian 110)**110 Masterpieces of Spanish Literature in Translation (3)**
(See Spanish 110)**110 Masterpieces of Spanish American Literature in Translation (3)**
(See Spanish 111)**112 Twentieth Century Russian Soviet Literature in Translation (3)**
(See Russian 112)**120 Classical Literature in Translation (3)**
(See English 120)**120 Literature of the Old Testament (3)**
(See English 125)**120 Continental Medieval Masterpieces (3)**
(See English 126)**120 The Contemporary World in Literature (3)**
(See English 128)**120 European Literature in Translation: Special Topics (3)**
(See French, German and Spanish 150)

Study of Religion

Although UMSL does not have a religion department or offer a degree in religion, there are a number of courses which may be categorized under the heading of religion even though they are housed within a number of different departments in the college. These courses are listed here for the benefit of the student who may wish to take one or more courses in religion as a part of an academic program.

Anthropology
265 Religion, Magic, and Science

Art
210 Medieval Art

English
125 Literature of the Old Testament

History
90 Freshman Seminar: The New Testament
331a The Ancient World: Israel
332a Europe in the Early Middle Ages
334 The Age of Reformation
344a History of the Church: Early Christianity
344b History of the Church: The Middle Ages

Interdisciplinary
70 Issues in Contemporary Religious Thought

Music
5 Introduction to Non-Western Music
321 Music of the Middle Ages

Philosophy
102 Philosophy of Religion
170 Asian Philosophy
323 Problems in Philosophical Theology

Sociology
264 The Sociology of Religion

Program

The School of Business Administration at the University of Missouri-St. Louis was established in 1967 with the purpose of bringing public supported collegiate education in business to the St. Louis area. The School currently offers work leading to the degree of bachelor of science in business administration (B.S.B.A.) and a master's of business administration (M.B.A.). Both degree programs are accredited by the American Assembly of Collegiate Schools of Business which is recognized by the National Commission on Accrediting as the authorized professional accrediting body in collegiate business education.

The purpose of the School of Business Administration is to expand the liberal development of student capacities for communication, analysis, judgment, and the ability to relate to a total economic and physical environment.

The program leading to the B.S.B.A. represents a concentrated professional education in business. The required number of professional credit hours has purposely been kept at a minimum level to allow for a balanced educational program combining the best of both a liberal arts and professional degree. The degree requirements provide ample opportunity to develop an area of professional concentration in accounting, economics, finance, general management, management information systems, marketing, or quantitative science.

The program offered by the School of Business Administration toward the M.B.A. degree is listed in the *Graduate Bulletin*.

Extension Programs

It has also been the goal of the School of Business Administration to provide, through the university's Extension Division, courses which would contribute to the continuing

The School of Business Administration attempts to expose students to an area of knowledge which will allow the students to make both an initial and lifelong contribution to society and to themselves.

and which would enable these individuals to meet growing and changing needs from both a professional and personal perspective. During the last year, in cooperation with the university's Extension Division, the School of Business Administration has sponsored over 100 credit and noncredit courses in fulfilling this objective.

University Year for Action

Since January of 1972 the School of Business Administration has participated with the Federal ACTION Agency in providing the opportunity for a small number of select students to spend one academic year working as an intern in one of several agencies concerned broadly with the area of business and economic development in the St. Louis metropolitan area. This program allows the student to earn a full year's academic credit in a program which combines both regular class room and internship credit. The program provides the unique opportunity for the junior or senior business student to test, in a practical setting, some of his or her university-gained knowledge. The students participating in this program receive a nominal monthly stipend from the federal government.

Career Opportunities

The current economics climate appears to favor those students seeking careers for which their business training has prepared them. Graduates of the School of Business Administration are placed at job entry levels in areas which require accounting, finance, management, computer, marketing, and quantitative management backgrounds. It is important to note that the demand for individuals trained in these areas appears to be equally strong for females as well as males.

Requirements

Admission Requirements

The School of Business Administration is a two year, junior-senior level program. Prerequisites for admission to the school are:

- 1 At least a 2.00 average for all work attempted at UMSL and
- 2 At least a 2.00 average for all qualifying work with a minimum of 60 semester hours of credit. Qualifying work includes a maximum of 15 hours of introductory courses in business administration (courses numbered below 200). The rest of the 60 hours must come from nonbusiness courses in arts and sciences and such other disciplines as may be supportive of the study of business.

Normally the qualifying work includes the following courses: Business Administration 140, Fundamentals of Financial Accounting and 145, Fundamentals of Managerial Accounting; Economics 50 and 51, Principles of Economics I and II and Business Administration 131, Elementary Statistics.

It is important that students plan to complete these courses by the end of their sophomore year since they are prerequisite to virtually all upper division course work.

- 3 Completion of the combined university and School of Business Administration general education requirements.

Transfer Students

Transfer students applying for admission to the School of Business Administration are expected to meet the same requirements as those previously enrolled at UMSL. Those students who fail to meet any of these requirements may be given admission to the university even though they will not be directly admitted to the School of Business Administration.

General Education Requirements

All students must meet the university general education requirements as listed on page 32. In addition, the student must meet the specific general education requirements as outlined by the School of Business Administration. The following indicates how the business student may integrate these specific requirements with the broader university general education requirements.

Minimum Mathematics Proficiency

A student must demonstrate a minimum proficiency in mathematics, defined by the School of Business Administration faculty as the equivalent of Mathematics 102, Finite Mathematics. Mathematics 30, College Algebra or Mathematics 40, Pre-Calculus Mathematics is prerequisite to Mathematics 102, Finite Mathematics.

Social Science Requirement

In choosing the courses to be used in meeting the social science portion of the general education requirements, the student should be aware of the following business school requirements: all students are required to take Economics 50 and 51, Principles of Economics I and II, and all students are required to take two courses in the behavioral sciences (psychology, sociology or anthropology).

Non-Euro-American Requirement

As a part of the student's general education background one course in a non-Euro-American subject is required of all business students.

Degree Requirements

The following is a summary of the requirements for the B.S.B.A. degree which includes those specific general education requirements previously outlined:

General Education Requirements 42 hours

The combined effect of the university general education requirements and the specific preprofessional requirements of the business school is as follows:

English composition (a minimum grade of C or demonstrated proficiency);

Three courses in the humanities to be chosen from the areas of art appreciation, music appreciation, philosophy, or literature;

Five courses in social science to include Economics 50 and 51, one course to meet the state requirement, and two courses in behavioral science to be chosen from anthropology, psychology, or sociology;

Three courses in math-science to include minimum proficiency in Mathematics 102, Finite Math (this requires a proficiency of college algebra) and a minimum of one lecture course in either a biological or physical science; and

One course in a non-Euro-American subject.

Language or Math Option

Each student is required to choose one of the following options:

thirteen (13) hours of one foreign language; or

a minimum of Mathematics 101, Survey Calculus (Mathematics 80, Analytic Geometry and Calculus I, should be taken by those students who plan to pursue any further calculus); and

The required number of business courses has been kept at a minimum level to allow for a balanced educational program containing the best of both a liberal arts and professional degree.



The business degree requirements provide opportunity to develop an area of professional concentration in accounting, economics, finance, general management, management information systems, marketing, or quantitative science.

one quantitative course from the following options: Business Administration 231, Intermediate Statistics; B.A. 308, Production and Operations Management; B.A. 331, Multivariate Analysis; B.A. 375, Operations Research; B.A. 385, Mathematical Programming; Economics 365, Econometrics; Math 175, Analytic Geometry and Calculus II.

The 13 hours of foreign language do not fulfill any specific requirements within the general education requirements and therefore should be counted among the hours designated as free electives.

Required Business Courses 45 hours

- 131 Elementary Statistics (3)
 - 140 Fundamentals of Financial Accounting (3)
 - 145 Fundamentals of Managerial Accounting (3)
 - 106 Basic Marketing (3)
 - 150 Legal Environment of Business (3)
 - 202 Fundamentals of Production (3)
 - 204 Financial Management (3)
 - 310 Management as a Behavioral Science I (3)
 - 391 Business Policy and Administration (seminar) (3)
- Business Electives - a minimum of 18 hours.

Free Electives 33 hours

There are approximately 33 free elective hours. Up to nine of these hours may be taken in the School of Business Administration; the remaining must be earned outside of the school.

Total Hours 120

Limitation on Discipline Concentration

While a certain level of concentration in one of the various fields of business is desirable, students should not concentrate their course selection to the extent that they limit their future job flexibility. Therefore, no more than 15 hours beyond required courses is allowed in any discipline with the exception of accounting. In accounting, a student may take up to 18 hours beyond the required courses. The combined hours in business and economics courses may not exceed 78.

Pass-Fail Option

The business student may elect to take up to 24 hours of course work on a pass-fail basis. Specifically exempted from the pass-fail option, however, are those courses designed to fulfill a School of Business Administration specific course requirement. This would mean that not available to be taken on a pass-fail basis are such courses as: Economics 50 and 51, courses taken to fulfill the Math-Language option, and the required business courses.

The business student may elect to take up to 12 of the allowed 24 pass-fail hours in School of Business Administration electives. The nonbusiness major may take any business administration course on a pass-fail basis provided prerequisites are met and this is in compliance with the student's degree requirements.

Students transferring from other institutions are required to complete a minimum of 21 hours of credit in the area of business at UMSL on a regular graded basis.

Business Administration Faculty

- Donald H. Driemeier, D.B.A.
Washington University acting dean, associate professor
- Joseph Hartley, D.B.A.
Indiana University professor
- Sioma Kagan, Diplom-Ingenieur, Ph.D.
Columbia University professor
- Frederick E. May, Ph.D.
University of Michigan professor
- Fred J. Thumin, Ph.D.
Washington University professor
- Emery C. Turner, D.B.A.
Washington University interim chancellor, professor
- Dik Twedt, Ph.D.
Northwestern University professor
- Robert S. Stich, Ph.D.
Oklahoma State University professor
- Albert P. Ameiss, Ph.D.
St. Louis University associate professor
- John J. Anderson, Ph.D.
University of Wisconsin-Madison associate professor
- Howard Baltz, Ph.D.
Oklahoma State University associate professor
- Vincent B. D'Antoni, D.B.A.
Washington University associate professor
- David P. Gustafson, Ph.D.
Stanford University associate professor
- John F. Kottas, Ph.D.
Northwestern University associate professor
- Robert E. Markland, D.B.A.
Washington University associate professor
- R. Frank Page, Ph.D.
University of Illinois C.P.A., associate professor
- Robert A. Schuchardt, D.B.A.
Washington University associate professor
- Norbert C. Terre, D.B.A.
Washington University C.P.A., associate professor
- James P. Tushaus, Ph.D.
University of Illinois associate professor
- George C. Witteried, M.B.A., J.D.
Northwestern University associate professor
- Larry D. Baker, D.B.A.
Indiana University assistant professor
- Nicholas DiMarco, Ph.D.
Case Western Reserve University assistant professor
- Douglas E. Durand, Ph.D.
Washington University assistant professor
- David R. Ganz, M.S. in C.
St. Louis University assistant professor
- Joseph P. Giljum, J.D.
St. Louis University L.L.M. New York University C.P.A. assistant professor
- Richard E. Homans, Ph.D.
University of Houston assistant professor
- Franklin S. Houston, Ph.D.
Purdue University assistant professor
- J. Ronald Hoffmeister, Ph.D.
University of Illinois assistant professor
- Charles R. Kuehl, Ph.D.
University of Iowa assistant professor
- Steven D. Norton, Ph.D.
Case Western Reserve University assistant professor
- L. Douglas Smith, Ph.D.
University of Minnesota assistant professor
- Earl Wims, Ph.D.
University of Iowa assistant professor
- James Wong, Ph.D.
Ohio State University assistant professor
- Albert E. Avery, M.S.
instructor
- Jack D. Becker, M.B.A.
Washington University instructor
- David Bird, M.S.
instructor
- John Blodgett, M.A.
instructor
- Lindell P. Chew, M.B.A.
instructor

Business Administration Description of Courses

Prerequisites may be waived by consent of department.
*Starred prerequisites may be taken concurrently with listed offering.

104 Fundamentals of Digital Computer Programming (3)

A study of the principles of programming digital computers with emphasis on a specific algebraic-oriented language.

106 Basic Marketing (3)

Prerequisite: Fundamentals of Accounting 140, Economics 51, and *Elementary Statistics 131. An examination of the character and importance of the marketing process, its essential functions and the institutions performing them. Attention is focused on the major policies (such as distribution, product, price, promotion) which underlie the multifarious activities of marketing institutions and the managerial, economic, societal implications of such policies.

109 COBOL Business Systems (3)

Fundamentals of computer programming for business use with the COBOL language. Presentation, analysis, and discussion of common business applications of data processing, to include administrative and accounting practices.

131 Elementary Statistics (3)

Prerequisite: Mathematics 102. An introduction to statistical methods and concepts used in the decision processes of business problems. Statistical measures and estimators are examined in relation to the estimation and testing problems of statistical inference. Formerly Elementary Statistics 31.

140 Fundamentals of Financial Accounting (3)

Prerequisite: Sophomore standing. Fundamental accounting principles and procedures; their application and interpretation emphasizing corporate financial reports. Topics include: the accounting cycle and the preparation of financial statements, including proprietary, partnership and corporate equities; also included is an introduction to the computer as an accounting tool.

145 Fundamentals of Managerial Accounting (3)

Prerequisite: Fundamentals of Financial Accounting 140. Development, interpretation and uses of accounting reports and supplementary information for management decision-making. Topics include: operational and capital budgeting, analysis of financial statements, and the application of relevant cost behavior, control, and traceability concepts in the

156 Legal Environment of Business (3)

Prerequisite: Economics 51, Fundamentals of Financial Accounting 140. An introduction to the nature and meaning of law, sources of law, legal process and institutions. The legal environment of business is defined as: the attitude of the government toward business, the historical development of this attitude; current trends of public control in taxation, regulation of commerce and competition; freedom of contract, antitrust legislation and its relationship to marketing, mergers and acquisitions; and labor management relations.

202 Fundamentals of Production (3)

Prerequisite: Economics 51, Elementary Statistics 131 and Fundamentals of Managerial Accounting 145. An examination of the concepts, processes, and institutions which are fundamental to an understanding of the production function in business enterprise. Emphasis is on the management and organization of production operations, and upon the application of scientific and quantitative methods to the solution of production problems.

204 Financial Management (3)

Prerequisite: Fundamentals of Managerial Accounting 145, Economics 51 and *Elementary Statistics 131. The study of a firm's need for funds; the institutions, instruments and markets concerned with raising such funds; and the techniques of analysis used to determine how effectively these funds, once raised, are invested within the firm.

224 Introduction to Systems Programming (3)

Prerequisite: Grade of "A" or "B" in Fundamentals of Digital Computer Programming 104 or consent of instructor. Development and interpretation of machine languages, addressing techniques, symbolic coding and assembly systems. A particular computer and programming system will be used extensively to illustrate concepts and to give students actual experience in programming.

231 Intermediate Statistics (3)

Prerequisite: Elementary Statistics 131, Mathematics 101 and Mathematics 102. A study of advanced statistical concepts as applied to the methods of statistical designs and models.

253 Managerial Economics (3)

Same as Economics 253. Prerequisite: Economics 51 and Mathematics 101*. Applications of microeconomic theory to the decision-making process in the business firm. Discussion of cost behavior, price and output determination under various

256 Business Law (3)

Prerequisite: Fundamentals of Financial Accounting 140 and Economics 51. Introduction to legal instruments and statutes centering on such things as contracts, agencies, partnerships, unincorporated organizations, corporations, negotiable instruments, bailment, personal and real property, bankruptcy and receivership. Includes a survey of Federal regulatory legislation to motivate and preserve competition and to protect the public.

270 Management of Promotion (3)

Prerequisite: Basic Marketing 106. A study of the design, organization, and implementation of the marketing "communications mix." Various methods, such as advertising, personal selling, and publicity are analyzed as alternatives for use alone or in combination to stimulate demand, reseller support, and buyer preference. Particular topics considered include: media selection, sales promotionals, packaging, selling strategy and their relationships in the promotion process.

275 Marketing Intelligence (3)

Formerly Business Administration 275 - Marketing Research. Prerequisite: Basic Marketing 106. An investigation of the acquisition, presentation, and application of marketing information for management. Particular problems considered are defining information requirements, evaluating research findings, and utilizing information. Statistical methods, models, and or cases are employed to illustrate approaches to marketing intelligence problems, such as sales forecasts, market delineation, buyer motives, store location, and performance of marketing functions.

289 Career Planning (1)

Prerequisite: A minimum of Junior standing. The emphasis of this course will be to assist business students to develop an understanding of themselves as related to employment, to develop an understanding of the world of work, and to integrate these so that effective career decisions can be made.

295 Business Administration Problems (variable credit)

Prerequisites: To be determined each time the course is offered. Study of selected special problems in business and administration. May be repeated for credit.

296 Independent Study (variable credit)

Prerequisites: Permission of the professor and the Dean. Occasional special individual study topics under the guidance of a specific professor.

hours of psychology or sociology, or consent of instructor. A study of consumer functions and concepts in economics, marketing and related subjects such as decision-making, attitude formation, perception and learning as related to marketing phenomenon-product image, brand loyalty, buying preference, diffusion of innovations. These are considered in context with political, social, market and cultural influences on buyer behavior.

300 Quantitative Marketing Methods (3)

Prerequisite: Basic Marketing 106, Finite Mathematics 101, or permission of instructor. Applications of analytic, deterministic and simulation techniques to decision areas, such as market potential, product distribution, physical distribution alternatives, retail location, media selection and market exposure. Quantitative and computerized methods are used to enhance decision-making in marketing, especially the selection, allocation, budgeting and forecasting of marketing resources.

305 Production and Operations Management (3)

Prerequisite: Fundamentals of Production 202, Mathematics 101 and Mathematics 102. Application of the principles and techniques of statistical decision theory to operations research to production and operating problems. Emphasis is on the use of mathematical modeling and simulation techniques to analyze complex and ill-structured problems in large scale systems.

310 Management as a Behavioral Science I (3)

Prerequisite: Economics 51 and Elementary Statistics 131. Management from a historical perspective. The meaning and psychological significance of the functions and responsibilities of managers. Applications of the behavioral sciences. Management and analysis of human behavior. Matching the man to the job. Managerial styles and authority. Employee satisfaction, motivation and productivity.

315 Management as a Behavioral Science II (3)

Prerequisite: Management as a Behavioral Science I. The organization as a social system. Interpersonal and social exchange. Modification of human behavior. Methods of change and their dysfunctional influences in the organization. Technology as a determinant of work behavior. Labor relations and organizational relations. Major organizational concepts and structures.

320 Industrial and Labor Relations (3)

Prerequisite: Management as a Behavioral Science I. Emphasis on labor unions and their relationship to management. Labor laws, trade union structure and management collective bargaining, arbitration and

315 Marketing Management (3)

Prerequisite: Senior standing and nine (9) hours in marketing, including Business Administration 106 or consent of instructor. An intensive analysis of major marketing decisions facing the firm, such as level, mix, allocation and strategy of marketing efforts. Specific decision areas investigated include market determination, pricing, physical distribution, product policy, promotion, channel management and buyer behavior. Competitive, political, legal and social factors that may affect such areas of decision are discussed. Cases, models and problems are used heavily.

318 Industrial Psychology (3)

Same as Psychology 218. Prerequisite: Psychology 101 or Management as a Behavioral Science 310. Activities of the applied psychologist. Selection and placement, testing and interviewing, personnel research. Morale, motivation and job satisfaction. Leadership skills and styles, creative management, industrial mental health. Psychology in advertising and marketing.

331 Multivariate Analysis (3)

Prerequisite: Elementary Statistics 131, Mathematics 101 and Mathematics 102. A study of statistical techniques applicable to multi-variable relationships.

334 Investments (3)

Prerequisite: Financial Management 204. Financial analysis of debt and equity instruments available on organized exchanges and in less tangible "over the counter" markets. Techniques of such analysis being presented in context with economic and management circumstances within the company, industry and economy.

340 Intermediate Accounting Theory (3)

Prerequisite: Fundamentals of Financial Accounting 140 and Fundamentals of Managerial Accounting 145 with a minimum grade of "C" in each (or consent of department) and *Elementary Statistics 131. The development of a structure of financial accounting theory and an analysis of asset valuation methods emphasizing their effect on income determination.

341 Advanced Accounting (3)

(Includes a continuation of the intermediate text, and topics from the advanced text.) Prerequisite: Intermediate Accounting Theory 340, minimum grade of "C" (or consent of department). Application of accounting theory to equity valuation and the related effects on income determination. Other topics include accounting for price level changes, partnerships and fiduciaries.

342 Consolidation and Specialized Accounting Problems (3)

grade of "C" (or consent of department). Accounting theory and practice relating to: consolidated financial statements, business combinations, foreign subsidiaries, corporate liquidation and reorganization and non-profit organizations.

345 Cost Accounting (3)

Prerequisite: Fundamentals of Managerial Accounting 145, minimum grade of "C" (or consent of department). Basic principles of cost determination and control of manufacturing and distribution activities; emphasizes the accumulation and tracing of cost to products, processes and responsibility centers for purposes of financial accounting and management control. Topics include: job-order and process costing and the development and use of standard costs within a system of absorption costing.

347 Income Taxes (3)

Prerequisites: Fundamentals of Financial Accounting 140 and Fundamentals of Managerial Accounting 145, minimum grade of "C" in each (or consent of department). Fundamentals of Federal income tax accounting with emphasis on individuals and corporations. Topics covered include: determination of income, exclusions, exemptions, personal and business deductions and tax credits.

348 Auditing (3)

Prerequisite: Advanced Accounting 341, minimum grade of "C" (or consent of department). Examination of fundamental audit objects and techniques employed in the verification, analysis and interpretation of accounting records and financial statements. The work of the independent public accountant is emphasized to include the standards of professional performance.

349 Managerial Aspects of Taxation (3)

Prerequisite: Income Taxes 347. A study of taxation and tax issues, including the planning, in the managerial decision making process. Research directed to the solution of business tax problems.

350 Financial Policies (3)

Prerequisite: Financial Management 204. The intensification and application of the concepts developed in Finance 204. Special emphasis is given to the development of top management policies and their application toward complex problems of finance. Techniques for identifying and dealing with these problems before they become acute will be investigated. Cases will be integrated with appropriate outside reading.

368 Business Fluctuations and Forecasting (3)

Same as Economics 368. Prerequisite: Economics 220. Discussion of factors affecting economic conditions,

problems and techniques of forecasting aggregate and industry demand.

375 Operations Research (3)

Prerequisite: Elementary Statistics 131, Mathematics 101 and Mathematics 102. Application of the theories and techniques of operations research to problems of business, government and industry; with emphasis on the construction and utilization of quantitative decision models.

380 International Business (3)

Prerequisite: Economics 51. U.S. in the world economy; emerging nations; foreign exchange market; foreign investment; commercial documents; world trade; management of enterprises abroad.

385 Mathematical Programming (3)

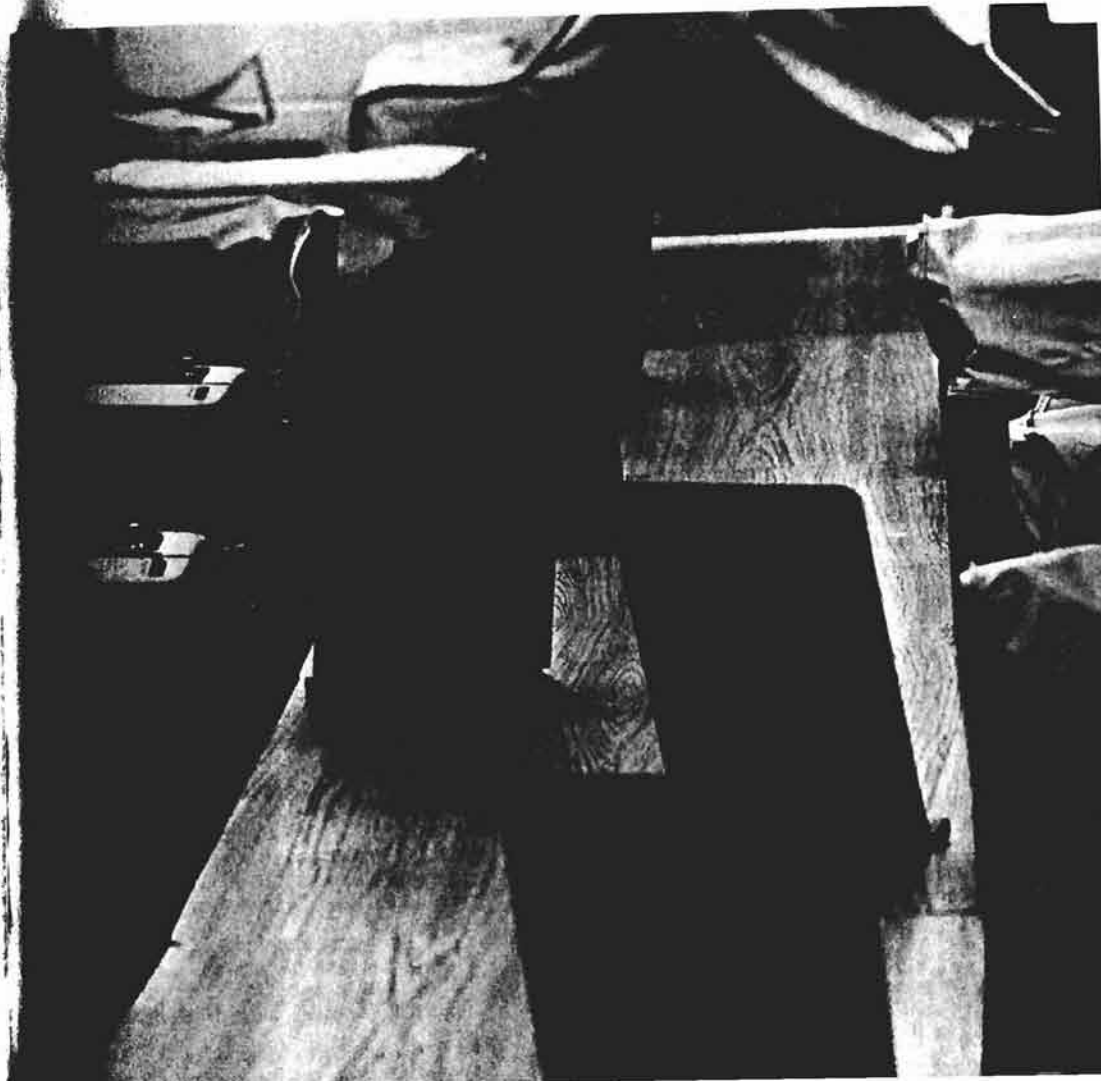
Prerequisite: Elementary Statistics 131, Mathematics 101 and Mathematics 102. A study of mathematical programming theory and algorithmic developments. Consideration is given to linear programming, integer programming, quadratic programming, dynamic programming and other related techniques.

391 Business Policy and Administration (3)

Prerequisite: Senior standing, Basic Marketing 106, Financial Management 204 and Management as a Behavioral Science 310. Comprehensive cases are used to examine the dynamics of business management. The role of high echelon management in the administrative process is integrated with the diverse functions of business to develop an operation system. Particular attention is given to formulation of a policy framework, planning and implementing executive action. Both team and individual analyses and reports are utilized with class evaluation and recommendation. (It is preferred that this course be taken in the student's final semester).

395 Business Administration Seminar (Variable credit)

Prerequisite: To be determined each time the course is offered. May be repeated for credit.



Program

To develop and maintain a quality educational setting in an urban area necessitates both advancing the field of education and meeting changing societal needs.

The School of Education acts on the premise that the process of developing and maintaining a quality educational setting in an urban area necessitates both advancing the field of education and meeting changing societal needs. It is committed to the university concept of quality in research, excellence in teaching, and the extension of these research and teaching capabilities through a service commitment to the community.

The school meets its commitment to research, teaching, and service in part through the teacher education program, for which it is responsible. The three departments of the school offer curricula leading to a bachelor of science in education degree with specialization in any of the following: early childhood education, elementary education, special education, and secondary education. In cooperation with other schools and colleges of the university, the School of Education provides a program for students pursuing other degrees but planning a teaching career in secondary education.

Programs leading to the master of education degree are offered in elementary education, secondary education, elementary and secondary school administration, and elementary and secondary school counseling by the school. Within these programs, graduate courses are available which allow for areas of emphasis in reading, special education (emotional disturbance and mental retardation), educational psychology, junior college counseling, employment counseling, psychological examination, research and evaluation, and some academic disciplines.

The University of Missouri-St. Louis, through the School of Education, is accredited by the National Council for Accreditation of Teacher

and secondary school teachers and school service personnel.

In order to meet the needs of students the school offers its undergraduate programs through both the day division and the Evening College. In conjunction with the Extension Division, the School of Education provides courses that help those at the undergraduate, graduate, and inservice levels who wish to extend their professional skill and knowledge.

Extension Activities

The School of Education in cooperation with the Extension Division extends teaching, research, and service to school personnel in the St. Louis metropolitan area, as well as to those in other parts of Missouri and the Midwest. The School of Education and Extension Division cooperate in identifying off campus preservice and inservice educational needs. To the extent that available resources allow, the School of Education meets these needs. The Extension Division encourages continuing education in all areas relating to school personnel and administers details of off-campus credit and noncredit courses.

Requirements

Admission Requirements

After completing two years of college coursework at an accredited institution, students who intend to teach in elementary, early childhood, or special education classrooms must apply for admission to the School of Education. Students who intend to teach in secondary school classrooms may elect to apply for admission to the School of Education in order to pursue courses of study culminating in the bachelor of science in education degree or they may elect to receive degrees from other colleges and schools in the university and meet teacher certification requirements. Note: Admission to the School of Education is not the same as admission to the teacher education program. Students admitted to the School of Education must also be admitted to the teacher education program.

Eligibility for admission to the School of Education is based upon the following criteria:

Satisfactory completion of two years of college work
 Minimum of 60 semester hours of work must be completed with a grade point average of 2.0 or above. The grade point average used in considering admission to the school is calculated as a gross total representing all institutions attended and all courses attempted, provided that such courses are applicable toward the degree sought.

Minimum deficiencies in general education
 Student may have no more than nine hours of deficiencies in general education.

Special requirements
 Specific prerequisites and/or other special requirements of the curriculum area for which the student is applying must be met.

Application for admission to the School of Education is handled by the Office of

General Education Requirements

Undergraduate students in the School of Education follow the general regulations of the university listed on page 32 and individual departmental requirements.

1 During the semester in which students enroll for student teaching, the maximum load they may carry is 15 semester hours, six of which are in student teaching (Education 251, 252, or 271).

2 Student teaching must be done in residence.

3 Students who will receive the bachelor of science in education degree must complete the application for degree card and Application for Missouri Teacher's Certificate forms in the Office of Teacher Education Advisement and Certification during the semester prior to the one in which they expect to finish degree requirements.

4 Students must go to the Office of Teacher Education Advisement and Certification during the last month of the semester in which requirements are completed and fill out the state certification forms.

Teacher Education Program

Office of Teacher Education Advisement and Certification

The Office of Teacher Education Advisement and Certification provides advisory assistance to students interested in becoming teachers. Questions about applying for admission to the teacher education program, sequence of courses, prerequisites, graduation and certification requirements, and related matters should be directed to that office.

Advisement

The curricula for teacher education vary considerably. It is necessary to plan the four-year program of studies carefully with the adviser in order to avoid inappropriate course selections resulting in the extension of the program beyond the minimum of 120 semester hours for the degree. Late entry into a teacher education sequence, changing from one curriculum to another, or changing the degree objective usually results in additional required course work beyond the minimum of 120 semester hours.

Course descriptions should be examined carefully for prerequisites since in many cases it will be virtually impossible to proceed to other courses without having completed these prerequisites.

Students planning to teach in secondary schools must meet state requirements for their chosen teaching fields. Some of these demand specific subject concentrations within arts and sciences disciplines; others involve specific preparation in more than one discipline. Students should seek advice from the Office of Teacher Education Advisement and Certification as early in their preparation as possible; in planning their junior and senior years, they should consult with their assigned advisers regularly.

Admission to Teacher Education

The teacher education program, administered by the School of Education, is open to all students who intend to become

teachers regardless of the college or school in which they are enrolled. The admission policies and procedures are designed to ensure early identification of all students who desire to become teachers in order that they may receive guidance in the selection of the most appropriate sequence of courses and experiences. This allows time for correction of deficiencies that would hinder teaching competence and it permits students to examine, with assistance, the depth of their interest in a teaching career.

The admission program requires student action at three stages or levels. The first of these, Level I, occurs at the conclusion of 30 semester hours of university course work. At that time students should apply for admission to candidacy. The application requires information concerning health, reasons for becoming a teacher, previous experiences working with children and/or youth, and grades received in university level courses. Upon favorable action by the Teacher Education Committee, students will be accepted as official candidates for admission to the teacher education program.

The second stage, Level II, requires that upon completion of 60 semester hours of approved course work, official candidates apply for formal admission to the teacher education program. Requirements for admission are a minimum of 60 semester hours of approved course work with a grade point average of 2.0 or higher and completion of Education 101 or equivalent with a grade of C or better.

They must also submit a completed Missouri School Personnel Health Certificate signed by a physician, a chest x-ray report, and an Affidavit of Moral Character.

Students and their advisers will be notified of their status by the Teacher Education Committee.

The Teacher Education Resource Center is an instructional facility composed of laboratories for instructional materials, media, and television.



Application forms for Levels I and II, Missouri School Personnel Health Certificates, and Affidavit of Moral Character can be picked up in the Office of Teacher Education Advisement and Certification, 461 Social Sciences, Business, and Education Building (SSBE). Students are responsible for making application at both levels.

The third stage, Level III, consists of applying for admission to student teaching. Students must make formal application for admission to student teaching at least one semester prior to the one in which they will do their student teaching, as directed by the Office of Clinical Experiences.

Applications must be filed during the periods designated by the Office of Clinical Experiences, 461 SSBE. Application forms are available in that office during the first two weeks of the semester preceding the semester in which students plan to do their student teaching. Upon receipt of students' applications, they will be checked to ensure that the students meet these requirements.

Formal admission to the teacher education program.

Completion of 90 semester hours of approved course work.

A grade point average of 2.2 or above must be attained one semester prior to the semester in which students plan to do their student teaching. This requirement went into effect with all students who did their student teaching during the 1973-74 academic year.

Completion of general education requirements and near completion of course requirements in the teaching major.

5 A grade of C or better in all professional education courses so designated by the Department of Elementary Education and the Department of Administration, Philosophy, and Secondary Education. Lists of these courses are available in the Office of Teacher Education Advisement and Certification, the Office of Clinical Experiences, and from advisers. This requirement went into effect starting with all students who did their student teaching during the 1973-74 academic year.

6 Satisfactory recommendation by students' teaching area representatives in the teacher education program.

7 Completion of prerequisite courses in professional education.

8 Completion at UMSL of not less than 12 hours of approved course work.

9 A grade point average of 2.2 in the teaching field - secondary education students only. This requirement went into effect starting with all students who did their student teaching during the 1973-74 academic year. In addition, students must submit a Missouri School Personnel Health Certificate signed by a physician and a chest x-ray report, both valid for the year in which they will do their student teaching.

Certification

In cooperation with the Missouri State Department of Education, the School of Education, is responsible for issuing teaching certificates to students who have completed the requirements for the bachelor of science in education degree.

The School of Education is also responsible for recommending for certification those students who have completed degrees from other colleges and schools in the university

Office of Clinical Experiences

and all certification requirements. In addition, the school has responsibility for advisement and recommendation to the State Department of Education of those postdegree students seeking teacher certification.

All requests and inquiries regarding certification should be directed to the Office of Teacher Education Advisement and Certification.

All matters pertaining to off-campus clinical experiences in teacher education are the responsibility of the Office of Clinical Experiences. Arrangement for these clinical experiences are handled by this office. When arrangements have been completed, students will be given letters verifying their status in the University of Missouri-St. Louis Teacher Education Program. Officials of local schools and agencies now require such letters because of the large numbers of people wishing to visit their institutions.

In order to participate in off-campus clinical experiences as a part of any School of Education course students must have on file with the Office of Clinical Experiences a Missouri School Personnel Health Form and chest x-ray report valid for the school year in which they will participate in those clinical experiences.

Student Teaching

Students must make formal application for admission to student teaching as outlined on page 195. When they have been admitted to student teaching, the Office of Clinical Experiences will work out assignments with appropriate school district officials. Students should not contact school officials or teachers about possible student teaching assignments. The need to coordinate assignments so that all those admitted to student teaching may be accommodated, agreements with school districts maintained, and time of school officials protected, are the bases for policy. Failure to observe this request is grounds for removal from student teaching.

Student teaching is not offered during the summer.

Requests for further information about student teaching policies and procedures should be directed to the Office of Clinical Experiences, 440 SSBE.

Teacher Education Resource Center

The Teacher Education Resource Center is an instructional facility open to teacher education students and faculty. It has three major components, each with its own staff, which together constitute an integral part of the teacher education program.

The Instructional Materials Laboratory uses a large collection of instructional materials including basic textbook series, children's books, trade books, school reference books, models, maps, globes, filmstrips, and charts.

The Instructional Media Laboratory affords opportunities for students to acquaint themselves with and develop their skills in using instructional media.

The Instructional Television Laboratory provides resources for video taping and filming teaching and counseling episodes, for microteaching with immediate feedback, and for research in teacher education. Teacher education students will find themselves using the Teacher Education Resource Center continuously throughout the program. Questions about policies and procedures regarding the Resource Center should be directed to the Coordinator of the Teacher Education Resource Center in the School of Education, 440 SSBE.

Educational Services Center

The Educational Services Center is a facility that is designed for a wide variety of on-campus clinical experiences in several teacher education curricula. At present it houses the Reading Clinic and the Counselor Education Clinic.

Elementary Education

Program

The Department of Elementary Education strives to provide a quality program of professional education for students who wish to become teachers of children below the junior high school level. Though the shortage of elementary teachers no longer exists, there is still a need for those who are highly qualified and possess the personal, intellectual, and professional skills needed to become excellent teachers. Employment opportunities are especially great for teachers of young children (ages three-five) and exceptional children (special education).

The department has outstanding strength in the quality of its teaching staff. Since UMSL is located in a major metropolitan area, there are unusual opportunities to work with children in schools as part of the professional course work.

The Department of Elementary Education offers programs leading to a bachelor of science in education degree: early childhood education, general elementary education, physical education, and special education. It also provides needed courses for postdegree students seeking teacher certification in elementary education, education of the mentally retarded, emotionally disturbed, and learning disabled. In addition, the department offers a program of studies leading to a master of education degree in the area of elementary education and special education (mentally retarded, emotionally disturbed, and learning disabilities).

General Education Requirements

The following work is required for programs in early childhood, elementary, and special education:

English, Speech - six hours
English 10 (3)
Speech (3)

Mathematics - six hours
Mathematics 50 and 151 (No credit toward graduation is granted for Mathematics 15 unless both Mathematics 50 and 151 are completed).

Science - eight hours
Biological Science (3)
Physical Science (3)
Science Lab (2)

Humanities - eight hours
Music 134 plus two courses chosen from the fields of art, music, philosophy, and literature.

Social Science - 15 hours
Psychology 3 and 170 (6)
Political Science 11, 176, or 170 (3)
History 3, 4, or 5 (6)

Since UMSL is located in a major metropolitan area, there are unusual opportunities to work with children as part of the professional teacher education program.

Early Childhood

The early childhood education program, totaling 120 hours, is especially designed for those who wish to teach in kindergarten and grades one through three. Students who enter this program are urged to use electives to complete requirements of the general elementary education program. This will prepare them for a wider range of teaching opportunities.

General Education Requirements
In addition to the general education requirements listed on page 198, a student is required to take three additional hours of social sciences including Sociology 224.

Area of Concentration
Humanities, Social or Natural Sciences, and Mathematics - 12 hours
Courses selected must be numbered 100 or above and may not be used to meet the requirements in professional education or related areas. Courses may not be taken in more than three departments.

Departmental Requirements

- 101 The School in Contemporary Society (3)
- 140 Elementary School Organization, Management and Techniques of Teaching (3)
- 150 Children's Literature and Language Arts (3)
- 302 Psychology of Teaching and Learning (3)
- 315 Principles of Early Childhood Education (3)
- 316 Creative Experiences for Young Children (3)
- 317 Exploring the Physical World with Young Children or Ed. 151, Teaching of Science in the Elementary School (3)
- 318 Exploring the Social World with Young Children or Ed. 152, Teaching of Social Studies in the Elementary School (3)
- 325 Teaching Reading in the Elementary School (3)
- 251 Elementary School Student Teaching (6)
- Total (33 hours)
- Electives (29 hours)

Elementary Education

The Elementary Education curriculum, totaling 120 hours, prepares students to teach in grades kindergarten through six and nondepartmentalized grades seven and eight.

General Education Requirements

In addition to the general education requirements listed on page 198, a student is required to take three additional hours of social sciences including Geography 101.

Area of Concentration

Humanities, Social or Natural Sciences, and Mathematics - 12 hours
Courses selected must be numbered 100 or above and may not be used to meet the requirements in professional education or related areas. Courses may not be taken in more than three departments.

Related Area Requirements

137 Music (2)
139 Art (3)
110 Elements of Health Education (3)
155 Physical Education Activities in the Elementary School (3)
Total (11 hours)

Departmental Requirements

101 The School in Contemporary Society (3)
140 Elementary School Organization, Management and Techniques of Teaching (3)
150 Children's Literature and Language Arts (3)
151 Teaching of Science in the Elementary School (3)
152 Teaching of Social Studies in the Elementary School (3)
153 Teaching Mathematics in the Elementary School (3)
302 Psychology of Teaching and Learning (3)
325 Teaching Reading in the Elementary School (3)
251 Elementary School Student Teaching (6)
Total (30 hours)

Electives (12 hours)

In order to meet the needs of students, undergraduate degree programs in education are offered both in the day and in the evening.

Special Education

The Special Education curriculum, totaling 120 hours, is designed for students who wish to become teachers of the mentally retarded. Since special education teachers must also be qualified as regular elementary or secondary teachers, provisions for that is made in the special education program.

General Education Requirements

In addition to the general education requirements listed on page 198, a student is required to take three additional hours of social sciences including Geography 101.

Related Area Requirements

137 Music (2)
139 Art (3)
110 Elements of Health Education (3)
155 Physical Education Activities in the Elementary School (3)
Total (11 hours)

Departmental Requirements

101 The School in Contemporary Society (3)
140 Elementary School Organization, Management and Techniques of Teaching (3)
150 Children's Literature and Language Arts (3)
151 Teaching of Science in the Elementary School (3)
152 Teaching of Social Studies in the Elementary School (3)
153 Teaching Mathematics in the Elementary School (3)
302 Psychology of Teaching and Learning (3)
325 Teaching Reading in the Elementary School (3)
Total (24 hours)

Special Education Requirements

313 Psychology of the Exceptional Child (3)
311 Introduction to Mental Retardation (3)
312 Speech and Language Problems of Exceptional Children (3)
240 Education of the Mentally Retarded (3)
310 Interpretation of Educational Tests and Measurements (3)
369 Analysis and Correction of Reading Disabilities (3)
390 Behavior Management (3)
252 Elementary School Student Teaching (6)
Special Education (6)
Total (27 hours)

Electives (12 hours)

Note: With consent of their adviser students in Special Education may omit one of the following: Ed. 110, 137, 139, 155, 151, or 152.

Physical Education

The physical education program, totaling 120 hours, includes the following requirements:

General Education Requirements

English
Proficiency or English 10 (0-3)
Speech 101 (recommended) (3)

Mathematics and Science (three courses)
Proficiency or Math 02 (0)
Chemistry 1 (recommended) (3)
Biology 1 (recommended) (3)
Biology 3 (recommended) (2)

Humanities (three courses) (9)

Social Sciences (three courses)
Psychology 3 (3)
Psychology 170 (3)
American History or Government (3)

Electives (10-13 hours)

Total (42 hours)

Departmental Requirements

Students majoring in physical education are required to meet departmental proficiency levels in the following areas: aquatics (Life Saving Certificate), gymnastics (floor exercise), dance (ballroom dance), lifetime sports (tennis, golf, and bowling), and team sports (basketball, volleyball, and soccer).

Proficiency levels may be satisfied through independent study, sports instruction, or departmental workshops. Generally, students will have two years to complete these proficiencies, which are required for entry into the corresponding analysis and teaching course. No credit hours are earned by satisfying this requirement.

The following courses concerning laboratory analysis in physical education are required:

- 103 Analysis and Teaching of Social Dance (3)
104 Analysis and Teaching of Gymnastics (3)
105 Analysis and Teaching of Team Sports (3)
108 Clinical Experience in Elementary Physical Education (3)
110 Elements of Health Education (3)
155 Physical Education Activities in the Elementary School (3)
216 Rhythm and Movement (3)

The following theory of physical education courses are required:

- 200 Human Anatomy and Physiology (4)
202 Sports Medicine (3)
203 Kinesiology (3)
204 Physiology of Human Exercise (3)
205 Psychology of Sport (3)
206 Sociology of Sport (3)
207 History and Philosophy of American Physical Education and Sport (3)
Total (43 hours)

Professional Education Requirements

- 101 The School in Contemporary Society (3)
140 Elementary School Organization, Management and Techniques of Teaching (3)
251 Elementary School Student Teaching (6)
268 The Curriculum and Methods of Teaching Physical Education (3)
302 Psychology of Teaching (3)
Total (18 hours)

Electives

- 159 Clinical Experience in Youth Sport Programs (recommended) (3)
210 Special Topics in Physical Education (recommended) (3)
Total (17 hours)

Elementary Education Faculty

- Mallice Z. Ramsey, Ed.D.
University of Missouri-Columbia chairman, professor
- Richard W. Burnett, Ed.D.
Indiana University director, Reading Clinic, professor
- James C. Olsen, Ed.D.
University of Illinois assistant dean, School of Education, professor
- Robert M. Walsh, Ed.D.
University of California, Los Angeles professor
- Walter J. Cegelka, Ed.D.
Marquette University associate professor
- Donald R. Greer, Ph.D.
University of Missouri-Columbia coordinator Teacher Education Resource Center, associate professor
- Robert E. Rea, Ph.D.
Southern Illinois University associate professor
- Chris A. Trojczak, Ed.D.
Indiana University associate professor
- Elizabeth P. Watson, Ed.D.
Indiana University associate professor
- Jack D. Miller, Ed.D.
Ohio State University assistant professor
- Robert V. Rodenborn, Ed.D.
Oklahoma State University assistant professor
- Deborah Sara Rowland, Ph.D.
St. Louis University assistant professor
- Thomas R. Schnell, Ph.D.
Southern Illinois University assistant professor
- George J. Yard, Ph.D.
St. Louis University assistant professor
- Helma Clark, M.A.
Instructor
- Don R. Green, M.Ed.
Instructor
- Keith S. McKinnon, M.A.T.
Instructor
- Donald D. Meyer, M.A.
Coordinator of clinical experiences, instructor

Elementary Education Description of Courses

Early Childhood

315 Principles of Early Childhood Education (3) (F,W,S)

Prerequisite: Education 101 and Education 302. A study of values and basic principles underlying good schools for young children. Intensive examination of planning daily programs, organizing the learning environment, developing the curriculum and units of work. An investigation of good learning situations for pre-school and primary children.

316 Creative Experiences for Young Children (3) (F,W,S)

Prerequisite: Education 315 and completion of humanities requirements in general education. A study of and experiences with materials, techniques and resources for promoting affective, cognitive and motor development through the use of art media, songs and rhythms, play and creative dramatics.

317 Exploring the Physical World with Young Children (3) (V)

Prerequisite: Education 315 and completion of science requirements in general education. A study of and experiences with materials, techniques and resources for broadening the child's awareness and understanding of science.

318 Exploring the Social World with Young Children (3) (V)

Prerequisite: Education 315 and completion of social science requirements in general education. A study of and experience with materials, techniques and resources for furthering the child's mastery of the skills of communication; his understanding of people, social roles, society and various cultures; his ability to develop satisfying relationships with peers and adults.

General Elementary Education

2 Effective Reading and Study Skills (2) (F&W)
Designed to increase reading rate and comprehension and to develop study techniques appropriate to the purpose and difficulty of materials. Use is made of mechanical pacer, comprehension tests, vocabulary materials and lecture demonstrations. No credit toward a degree.

137 Elementary School Music (2) (F&W)
(Same as Music 137) Prerequisite: Music 134 or consent of department. The role of the classroom teacher in the development of the elementary school general music program; selection of music, demonstration and practice of methods, study of

139 Art Activities for Elementary Schools (3) (F&W)

(Same as Art 139) A study of art principles; provides laboratory experiences with various media and materials. Stresses curriculum planning and developments of the elementary school program in art.

140 Elementary School Organization, Management and Techniques of Teaching (3) (F,W,S)

Prerequisite: Education 101 and admission to the School of Education. Organization and management of the elementary classroom emphasizing social factors affecting elementary schools. Formal and informal organizations in the school relating to administrative-teacher-pupil interactions and teacher-learning environment and general techniques of teaching.

150 Children's Literature and Language Arts (3) (F,W,S)

Prerequisite: Education 101 and admission to the School of Education. A course designed to provide a knowledge of the various types of children's literature, criteria for selecting and evaluating reading material. An introduction to the teaching of the language arts in the elementary schools.

151 Teaching of Science in the Elementary School (3) (F,W,S)

Prerequisite: Education 140 and completion of science requirements in general education. A study of elementary school science emphasizing the current science curricular content, methods of teaching and instructional materials. Analysis of forces affecting objectives, materials and teaching techniques.

152 Teaching of Social Studies in the Elementary School (3) (F,W,S)

Prerequisite: Education 140 and completion of social science requirements in general education. A study of elementary school social studies emphasizing the current social studies curricular content, methods of teaching and instructional materials. Analysis of forces affecting objectives, materials and teaching techniques.

153 Teaching Mathematics in the Elementary School (3) (F,W,S)

Prerequisite: Education 140 and completion of mathematics requirements in general education. Organization and implementation of a modern elementary school mathematics program.

251 Elementary School Student Teaching (6) (F&W)

experience in elementary school classrooms under university and school supervision. Seminar accompanies classroom teaching experience.

257 Teaching Music in the Elementary School (3) (F)

(Same as Music 257) Prerequisite: Music 112 and Education 101. For the music education major. A study of the elementary school music curriculum, emphasizing the objectives of school music instruction, correct approaches and methods of teaching and staffing music classes, analysis of instructional materials and resources. The class is divided when appropriate according to the vocal or instrumental programs of the students.

325 Teaching Reading in the Elementary School (3) (F,W,S)

Prerequisite: Education 140, Educational Psychology and junior standing. Methods and materials of improving word perception, vocabulary, comprehension and interests in independent reading.

327 Teaching Reading in the Inner City (3) (F&S)

Prerequisite: Education 140 and senior standing. A systematic study of the problems of teaching reading and related language arts in ghetto schools. Attention is given to the ways in which the selection of materials and methodology of teaching reading to inner city children is influenced by their physical and psychological needs, their experience backgrounds, their spoken language patterns, their cultural heritage, and the sociology of their environment.

340 Selection and Utilization of Educational Media (3) (F,W,S)

Introduction to the selection, use, and evaluation of audio visual materials and equipment including films, slides, transparencies, projectors, globes, charts, maps, bulletin boards, plus programmed materials, information retrieval systems, and instructional television.

350 Elementary School Curriculum (3) (V)

Prerequisite: Education 140. Study of modern education with regard to objectives, content, methods in elementary school curriculum.

369 The Analysis and Correction of Reading Problems in the Classroom (3) (F,W,S)

Prerequisite: Education 325, 365 or equivalent. A study of causes of reading difficulties and procedures that may be used to analyze and correct them in the group setting.

Special Education**240 Education of the Mentally Retarded (3)**

the School of Education. Methods and techniques of use in the education of children with mental retardation. Required of all who are preparing for certification in special education for mentally retarded.

252 Elementary Student Teaching in Special Education (6) (F&W)

Prerequisite: Education 240, Education 313 and admission to student teaching. Clinical experience in teaching special education classes in the elementary school under university and school supervision. Seminar accompanies classroom teaching experience.

272 Secondary School Student Teaching in Special Education (6) (V)

Prerequisite: Education 240, Education 313 and admission to student teaching. Clinical experience in teaching special education classes in the secondary school under university and school supervision. Seminar accompanies classroom teaching experience.

311 Introduction to Mental Retardation (3) (F)

Prerequisite: Education 101, Education 313, and admission to the School of Education. An introductory course dealing with the characteristics, classification and causes of the mentally retarded.

312 Speech and Language Problems of Exceptional Children (3) (F)

Prerequisite: Education 101, Education 313, and admission to the School of Education. Study of the problems associated with speech and language development and the techniques employed by classroom teachers to lessen these problems for children. Required for all majors in Special Education.

360 Behavior Management (3) (F,W,S)

Prerequisite: Education 313 and an appropriate introductory course in special education area of concentration. An in-depth exploration of various behavior control techniques that are particularly applicable to exceptional children. Students will be required to conduct at least one behavior modification project with exceptional children.

Administration, Philosophy, and Secondary Education

Program

At the undergraduate level, the administration, philosophy, and secondary education programs prepare students for teaching in secondary schools (grades 7-12). An unusual feature of these programs is the close interdisciplinary cooperation between the professional school and the departments in other university divisions. Joint appointees provide liaison, teach special methods classes, and supervise student teachers. In addition to interdisciplinary preparations, business education and physical education majors are offered within the School of Education.

Options open to undergraduate students include either the bachelor's degree in arts and sciences plus certification or the bachelor of science in education degree (which carries with it Missouri certification). Postbaccalaureate students may earn secondary certification.

Early advisement and careful planning are essential in the pursuit of secondary education programs. Joint appointees and other designated advisers in the College of Arts and Sciences are prepared to advise prospective teachers, as are personnel in the Office of Teacher Education Advisement and Certification.

Graduate Programs

NCATE approved master in education programs are offered in secondary education, elementary administration, and secondary administration. In addition, administrative certification for AAA schools may be earned in a sixty-hour program.

Interdisciplinary Program

In addition to the university general education requirements listed on page 32, interdisciplinary preparations, together totaling 120 hours, include the following requirements:

Departmental Requirements

The department requires 21 hours of work in prescribed courses in education and psychology. These 21 hours enable students to meet state professional education standards.

- Ed. 101 The School in Contemporary Society (3)
- Ed. 163 Techniques of Secondary School Teaching (3)
- Psych. 171 Adolescent Psychology (3)
- Ed. 302 Psychology of Teaching and Learning (3)
- Ed. Methods Course in Teaching Major (3)
- Ed. 271 Secondary School Student Teaching (3)
- Total (21 hours)

Teaching Fields

Secondary teaching fields require 30 to 40 hours of specific subject requirements in one of the following areas:

English education, foreign language education (French, German, Spanish), mathematics education, music education (see page 92), science education (biology, chemistry, physics) and social studies education.

Electives (17-27 hours)

There is a close interdisciplinary cooperation between the School of Education and the departments in other divisions to prepare students for teaching in secondary schools.

Business Education

In addition to the university general education requirements listed on page 32, business education majors must complete the following requirements, totaling 120 hours:

Departmental Requirements

- Ed. 101 The School in Contemporary Society (3)
- Ed. 163 Techniques of Secondary School Teaching (3)

Psychology

- Psych. 171 Adolescent Psychology (3)

Education

- Ed. 162 Psychology of Teaching and Learning (3)
- Ed. 161 Curriculum and Methods of Teaching Business Subjects (3)
- Ed. 271 Secondary School Student Teaching (6)
- Total (21 hours)

Academic Major

The requirements for a major in business education include work in secretarial training and business administration.

Education

- Ed. 161 Methods of Teaching Typewriting I (3)
- Ed. 162 Methods of Teaching Typewriting II (3)
- Ed. 165 Methods of Teaching Stenography I (3)
- Ed. 166 Methods of Teaching Stenography II (3)
- Ed. 167 Secretarial Practice (3)
- Ed. 168 Field Experience and Seminar in Secretarial Practice (3)

Business Administration

- Bus. 140 Fundamentals of Financial Accounting (3)
- Bus. 145 Fundamentals of Managerial Accounting (3)
- Bus. 140 Intermediate Accounting Theory (3)

The student must also select two of the following courses:

Economics

- 50 Principles of Economics I (3)
- 51 Principles of Economics II (3)

Business Administration

- 131 Elementary Statistics (3)
- 204 Financial Management (3)
- 256 Business Law (3)
- 106 Basic Marketing (3)
- Total (33 hours)

Electives (24 hours)

Physical Education

The physical education program, totaling 120 hours, includes the following requirements:

General Education Requirements

English
Proficiency or English 10 (0-3)
Speech 101 (recommended) (3)

Mathematics and Science (three courses)
Proficiency or Math 02 (0)
Chemistry 1 (recommended) (3)
Biology 1 (recommended) (3)
Biology 3 (recommended) (2)

Humanities (three courses) (9)

Social Sciences (three courses)
Psychology 3 (3)
Psychology 171 (3)
American History or Government (3)

Electives (10-13)

Total (42 hours)

Departmental Requirements

Students majoring in physical education are required to meet the departmental proficiency levels in the following areas: aquatics (Life Saving Certificate), gymnastics (floor exercise), dance (ballroom dance), lifetime sports (tennis, golf, and bowling), and team sports (basketball, volleyball, and soccer).

Proficiency levels may be satisfied through independent study, sports instruction, or departmental workshops. Generally, students will have two years to complete these proficiencies, which are required for entry into the corresponding analysis and teaching course. No credit hours are earned by satisfying this requirement.

The following courses concerning laboratory analysis in physical education are required:

Education

102 Analysis and Teaching of Aquatic Sports (3)
103 Analysis and Teaching of Social Dance (3)
104 Analysis and Teaching of Gymnastics (3)
105 Analysis and Teaching of Team Sports (3)
106 Analysis and Teaching of Lifetime Sports (3)
109 Clinical Experience in Secondary Physical Education (3)
155 Physical Education Activities in the Elementary School (3)

The following theory of physical education courses are required:

Education

200 Human Anatomy and Physiology (4)
202 Sports Medicine (3)
203 Kinesiology (3)
204 Physiology of Human Exercise (3)
205 Psychology of Sport (3)
206 Sociology of Sport (3)
207 History and Philosophy of American Physical Education and Sport (3)
Total (43 hours)

Professional Education Requirements

Education

101 The School in Contemporary Society (3)
163 Techniques of Secondary School Teaching (3)
271 Secondary School Student Teaching (6)
268 The Curriculum and Methods of Teaching Physical Education (3)
302 Psychology of Teaching (3)
Total (18 hours)

Electives

Education

159 Clinical Experience in Youth Sport Programs (recommended) (3)
210 Special Topics in Physical Education (recommended) (3)

Administration, Philosophy, and Secondary Education Faculty

Robert R. Gard, Ed.D.
Arizona State University chairman, associate professor

L.E. Mueller, Ed.D.
University of Missouri-Columbia director of admissions and registrar, professor

John S. Rigden, Ph.D.
Johns Hopkins University professor

Wilburn Shannon, Ed.D.
Harvard University Extension Division, visiting professor

Harold E. Turner, Ed.D.
George Peabody College professor

Henry R. Weinstock, Ed.D.
University of Georgia professor

Joy E. Whitener, Ed.D.
Washington University dean, Evening College, professor

Walter Ehrlich, Ph.D.
Washington University associate professor

Angelo Puricelli, Ph.D.
St. Louis University assistant dean, Extension Division, associate professor

Charles G. Smith, M.S.
athletic director associate professor

Blanche M. Touhill, Ph.D.
St. Louis University associate professor

Paul D. Travers, Ed.D.
George Peabody College associate professor

Bruce Clark, Ph.D.
University of Illinois assistant professor

Robert I. Cloos, Ed.D.
Rutgers University assistant professor

Russell Cooper, Ed.D.
Indiana University assistant professor

Stanley DeRusha, M.M.
University of Wisconsin assistant professor

Clarence Drichta, M.M.
assistant professor

Annis Fallon, Ph.D.

Charles Fazzaro, Ed.D.
West Virginia University assistant professor

Richard J. Friedlander, Ph.D.
University of California, Los Angeles assistant professor

Charles Granger, Ph.D.
University of Iowa assistant professor

Robert B. Jones, Ed.D.
Indiana University assistant to the chancellor, assistant professor

Conney M. Kimbo, Ph.D.
University of Iowa dean of student affairs, assistant professor

Jane A. Miller, Ph.D.
Tulane University assistant professor

Everett Nance, Ed.D.
Western Michigan University director, Midwest Community Education Center, assistant professor

Jerry L. Pulley, Ed.D.
University of Missouri-Columbia assistant professor

Virgil N. Sapp, B.S.
dean, Extension Division assistant professor

Wendell L. Smith, Ph.D.
Ohio State University assistant dean, Extension Division, assistant professor

Robert J. Starr, Ed.D.
University of Missouri-Columbia assistant professor

Margaret Sullivan, Ph.D.
St. Louis University assistant professor

Martin Towey, Ph.D.
St. Louis University assistant professor

Samuel E. Wood, Ed.D.
University of Florida assistant professor

Edith Young, Ed.D.
University of Missouri-Columbia assistant professor

Suzanne Cooper, M.A.
instructor

Dorothy Doyle, M.A.
instructor

Charlyn Fox, M.S.
instructor

Barbara Mann, M.S.

Administration, Philosophy, and Secondary Education Description of Courses

Prerequisites may be waived by consent of department.

3 Beginning Shorthand (3) (F)

Prerequisite: Typewriting. Study of Gregg shorthand theory with emphasis on reading, writing and taking dictation at moderate rates. No credit toward a degree.

4 Intermediate Shorthand (3) (W)

Prerequisite: Beginning Shorthand and Typewriting. Development of speed and accuracy in taking dictation; emphasis on transcribing techniques. No credit toward degree.

102 Analysis and Teaching of Aquatic Sports (3) (F)

Prerequisite: Consent of Instructor. Study and performance of aquatic skills. Particular emphasis on safety and instructional techniques leading to the Water Safety Instructor's Certificate.

103 Analysis and Teaching of Social Dance (3) (F)

Prerequisite: Consent of Instructor. The study and performance of social dance forms. Particular emphasis will be given to contemporary American square dance, international folk dance, and American and Latin ballroom dances.

104 Analysis and Teaching of Gymnastics (3) (W)

Prerequisite: Consent of Instructor. The study of selected gymnastic movement. Emphasis will be given to teaching skills and techniques.

105 Analysis and Teaching of Team Sports (3) (W)

Prerequisite: Consent of Instructor. The study and performance of selected team sports. Particular emphasis will be given to skill analysis, strategy and teaching of basketball, soccer, volleyball, field hockey, baseball, softball, and flag football.

106 Analysis and Teaching of Lifetime Sports (3) (F)

Prerequisite: Consent of instructor. Study and performance of selected lifetime sports. Particular emphasis will be given to skill analysis, strategy and teaching of badminton, tennis, golf, bowling and archery.

108 Clinical Experience--Elementary School Physical Education (3) (W)

Prerequisite: Education 155. Early professional preparation in elementary school physical education process and practice. Seminar precedes and accompanies clinical experience.

109 Clinical Experience--Secondary Physical Education (3) (W)

experience in junior or senior high physical education programs. Seminar precedes and accompanies clinical experience.

110 Elements of Health Education (3) (F,W,S)

Prerequisite: Education 101 and admission to the School of Education. Basic school health for teachers. Considers health as it relates to the school and the child.

155 Physical Education Activities in the Elementary School (3) (F,W,S)

Objectives of physical education for the elementary school child with applications of choice of activities, organization of program, theory, practices.

159 Clinical Experience in Youth Sport Programs (3) (F)

Prerequisite: Consent of Instructor. Supervised clinical experience in youth sport programs. Seminar precedes and accompanies clinical experience.

163 Techniques of Secondary School Teaching (3) (F,W,S)

Prerequisite: Education 101 and admission to the School of Education. Activities and interaction of teachers and pupils in development of conditions for learning in secondary schools. Analysis of teaching-learning process and examination of studies of teaching.

200 Human Anatomy and Physiology (4) (F)

Prerequisite: Biology 1 and 3, Chemistry 1. Study of the basic aspects of human anatomy and physiology and their relationship to concepts in sport and physical activity. Two hours laboratory per week.

202 Sports Medicine (3) (F)

Prerequisite: Education 200. A study of the medical supervision of sports participants, training, prevention and care of injuries. Course grants Red Cross First Aid Certificate.

203 Kinesiology (3) (W)

Prerequisite: Education 200. A study of the biomechanics of human motion with particular application to performance in sport activities.

204 Physiology of Human Exercise (3) (W)

Prerequisite: Education 200. A study of the physiological effects of human exercise and sport activities upon the human body; exercise metabolism, work and fatigue; development of strength and flexibility; and cardiorespiratory effects of exercise.

205 Psychology of Sport (3) (F)

Prerequisite: Psychology 1, 2, and 170 or 171. A study of the following aspects of psychology as they

relate to learning, retention, transfer, practice, motivation, anxiety, stress, relaxation and fatigue.

206 Sociology of Sport (3) (W)

Prerequisite: Sociology 1 or 10. Study of sport in the socio-cultural process of school and society.

207 History and Philosophy of American Physical Education and Sport (3) (F)

Prerequisite: Junior standing. A chronological study of the role of sport in American society and the development of physical education as a profession. Of particular interest will be the effect of religion, philosophy, economics, politics and education upon physical education and sport.

209 Special Topics in Physical Education (1-3) (V)

Prerequisite: Consent of Instructor. Independent study through readings, reports, field study or research.

210 Rhythm and Movement (3) (W)

Prerequisite: Education 155. Exploration into locomotor, non-locomotor forms and expressive movement through rhythm for children. Implications of methodology in concept teaching for elementary educators.

211 Methods of Teaching Typewriting I (3) (F)

Prerequisite: Intermediate Typewriting or equivalent. Instruction in the methods and techniques used to develop job-level competency. Laboratory required.

212 Methods of Teaching Typewriting II (3) (W)

Prerequisite: Education 231. Instruction in the preparation of various business and technical papers, duplicating equipment, etc. Laboratory required.

213 Methods of Teaching Shorthand I (3) (F)

Prerequisite: Intermediate shorthand and transcription or equivalent. Instruction in the methods and techniques used to teach Gregg shorthand, with emphasis on how to build speed and accuracy to meet job-level competency. Laboratory required.

214 Methods of Teaching Shorthand II (3) (W)

Prerequisite: Education 232 and Education 235. Instruction in the methods and techniques used to teach transcription. Laboratory required.

215 Secretarial Practice (3) (W)

Prerequisite: Education 235 and Education 231 or consent of instructor. Instruction in methods and techniques used to teach office procedures and practices.

216 The Curriculum and Methods of Teaching

Business Subjects (3) (F)
Prerequisite: Education 163, 232 and near-major in the

business education courses in the school curriculum, with emphasis on the selection and organization of materials and methods of instruction and evaluation. Attention is also directed toward learning the techniques and research tools of the scholar in the field of business education. To be taken concurrently with student teaching.

262 The Curriculum and Methods of Teaching English (3) (F&W)

Same as English 262. Prerequisite: Education 163 and a near-major in the subject matter. A study of the scope and sequence of the English course in the School curriculum with emphasis on the selection and organization of materials and methods of instruction and evaluation. Attention is also directed toward learning the techniques and research tools of the scholar in the field of English. To be taken concurrently with student teaching.

263 The Curriculum and Methods of Teaching Art (3) (V)

Prerequisite: Education 163 and a near-major in the subject matter. A study of the scope and sequence of art courses in the school curriculum, with emphasis on the selection and organization of materials and methods of instruction and evaluation. Attention is also directed toward learning the techniques and research tools of the scholar in the field of art. To be taken concurrently with student teaching.

264 The Curriculum and Methods of Teaching Foreign Language (3) (F&W)

Same as French 264, German 264, Spanish 264. Prerequisite: Education 163 and a near-major in the subject matter. A study of the scope and sequence of the foreign language courses in the school curriculum with emphasis on the selection and organization of materials and methods of instruction and evaluation. Attention is also directed toward learning the techniques and research tools of the scholar in the field of foreign language. To be taken concurrently with student teaching.

265 The Curriculum and Methods of Teaching History and Social Studies (3) (F&W)

Same as History 265. Prerequisite: Education 163 and a near-major in the subject matter. A study of the scope and sequence of the history and social studies courses in the school curriculum with emphasis on the selection and organization of materials and methods of instruction and evaluation. Attention is also directed toward learning the techniques and research tools of the scholar in the field of history and social studies (not counted as credit for a major in history). To be taken concurrently with student

266 The Curriculum and Methods of Teaching Mathematics (3) (W)

Prerequisite: Education 163 and a near-major in the subject matter. A study of the scope and sequence of the mathematics courses in the school curriculum with emphasis on the selection and organization of materials and methods of instruction and evaluation. Attention is also directed toward learning the techniques and research tools of the scholar in the field of mathematics. To be taken concurrently with student teaching.

267 The Curriculum and Methods of Teaching Secondary School Music (3) (W)

Same as Music 267. Prerequisite: Music 112 and Education 101. For the music education major. A study of the secondary school music curriculum including choral and instrumental performance organization, instrumental groups, non-performance classes, related arts courses, extra-curricular music activities, administrative procedures, evaluation of literature and instrumental material, program preparation and curriculum development. The class is divided when appropriate according to the choral or instrumental programs of the student.

268 The Curriculum and Methods of Teaching Physical Education (3) (W)

Prerequisite: Education 163 or 140. A study of the scope and sequence of the physical education courses in the school curriculum with emphasis on the selection and organization of materials and methods of instruction and evaluation. Attention is also directed toward learning the techniques and research tools of the scholar in the field of physical education. To be taken concurrently with student teaching.

271 Secondary School Student Teaching (6) (F&W)

Prerequisite: Education 163 and admission to student teaching. Clinical teaching experience in secondary school classrooms under university and school supervision. To be taken concurrently with appropriate curriculum and methods course.

280 The Curriculum and Methods of Teaching Physical Sciences (3) (W)

Same as Chemistry 280 and Physics 280. Prerequisite: Education 163 and a near-major in the subject matter. A study of the scope and sequence of the physical science courses in the school curriculum, with emphasis on the selection and organization of materials and methods of instruction and evaluation. Attention is also directed toward learning the techniques and research tools of the scholar in the field of science. To be taken concurrently with

285 The Curriculum and Methods of Teaching the Life Sciences (3) (W)

Same as Biology 285. Prerequisite: Education 163 and a near-major in the subject matter. A study of the scope and sequence of the life sciences courses in the school curriculum, with emphasis on the selection and organization of materials and methods of instruction and evaluation. Attention is also directed toward learning the techniques and research tools of the scholar in the field of science. To be taken concurrently with student teaching.

320 Comparative Education (3) (V)

A comparative study of representative systems of education in South America, Europe and Asia in contrast with the American System.

321 Progressivism and Modern American Education (3) (V)

Relationship between American progressive school theory and contemporary classroom practices, including the open classroom, the community school, the alternate school, open admissions, and learning by individual contract. Trends will be interpreted in the light of various roles of the classroom teacher in the modern school.

322 History of American Education (3) (F&W)

Prerequisite: A course in American history or consent of instructor. An overview of the evolutionary development of American educational theory and practice from the early colonial period to the present. Attention is also given to selected issues in professional education.

336 Field Experience and Seminar in Secretarial Practice (3) (V)

Prerequisite: Education 101, 236, 237 and admission to the School of Education. Practical experience in office procedures. To be taken before student teaching.

352 Secondary School Curriculum (3) (V)

Prerequisite: Education 163. Sources, scope, and organization of the curriculum, modern trends and methods of investigation.

365 Problems of Teaching Reading in Secondary Schools (3) (F,W,S)

Prerequisite: Education 101. Methods and materials for improving reading in secondary school classes, including content fields.

370 Field Study in Secondary Education (credit arranged) (V)

Identification of specific problems in the area of secondary education. Course is conducted as a field study in the public schools. A maximum of eight credit hours may be applied toward an advanced

371 Preparation of Materials for Audio-Visual Education (3) (V)

For classroom teachers. Evaluation of audio-visual education procedures and classroom instruction, including the preparation of audio-visual education materials.

376 Instructional Television and Other Audio-Visual Media (3) (V)

Prerequisite: Consent of Instructor. A consideration of the planning, writing, producing and directing of educational programs for television. Study of fundamentals of lighting, camera operation, and audio and video recording. Each student is expected to produce and direct educational television programs.

Behavioral Studies and Research

Program

The Department of Behavioral Studies and Research furnishes courses vital to the undergraduate and postdegree certification programs offered by the School of Education. In addition, the department provides programs leading to the master of education degrees in elementary guidance and counseling and secondary guidance and counseling.

Behavioral Studies
and Research
Faculty

Harold W. Richey, Ph.D.
University of Kansas City interim chairman, professor

William L. Franzen, Ph.D.
University of Wisconsin dean, School of Education,
professor

Thomas E. Jordan, Ed.D.
Indiana University professor

George E. Mowrer, Ed.D.
University of Missouri-Columbia professor

Arthur E. Smith, Ph.D.
St. Louis University associate dean, School of
Education, professor

King M. Wientge, Ed.D.
Washington University professor

Margaret C. Fagin, Ed.D.
Syracuse University associate professor

Rickey L. George, Ph.D.
Northwestern University associate professor

Jon C. Marshall, Ed.D.
University of Kansas associate professor

W. Ray Rhine, Ph.D.
University of Texas associate professor

Patricia Jakubowski-Spector, Ed.D.
University of Illinois associate professor

Gaylen Wallace, Ed.D.
Oklahoma State University associate professor

Barbara Fulton, Ph.D.
University of Missouri-Columbia assistant professor

Robert Packard, Ph.D.
University of Minnesota assistant professor

Steven Spaner, Ph.D.
Southern Illinois University-Carbondale assistant
professor

Doris Knight, M.Ed.
instructor

Sandra L. Laham, M.A.
instructor

Behavioral Studies
and Research
Description of Courses

Prerequisites may be waived by consent of department.

221 Growth and Development (3) (V)
Comprehensive study of chronological age norms and the process of growth and development throughout the entire life span. There will be special emphasis on childhood, adolescence, and senescence.

302 The Psychology of Teaching and Learning (3) (F,W,S)

Prerequisite: Education 101, Psychology 170 or 171, and admission to the School of Education. Application of the principles of psychology to an understanding of the dynamics of teaching behavior and learning behavior. Involves both theoretical and practical approaches to analysis of the learning environment of the school. Required of all who are preparing to teach.

310 Interpretation of Educational Tests and Measurements (3) (F,W,S)

A study of the principles of psychometrics with emphasis upon the classroom interpretation of group tests of intelligence and achievement. Required of all majors in Special Education.

313 The Psychology of Exceptional Children (3) (F,W,S)

Prerequisite: Psychology 170. A study of the unique psychological problems of children who deviate from the normal. Required of all majors in Special Education.

330 Educational Statistics (3) (V)

Statistical methods for teachers, supervisors, superintendents and beginning graduate students. Frequency distributions, measures of central tendency, variability, sampling and correlation.

331 Classroom Measurement and Evaluation I (3) (F,W)

Tests and measurements for the classroom. Basic measurement principles; test planning; construction and use of selection type tests, supply type tests, and performance tests; item analysis procedures, methods of summarizing test scores, determining derived scores and norms; and pupil evaluation.

360 Principles and Procedures for Student Personnel Work (3) (V)

Student personnel work in educational institutions, objectives of student personnel work, certain pertinent techniques.

362 Occupational and Education Information (3) (V)

Nature, use of occupational and educational information. Characteristics, requirements of occupations and training opportunities.



School-wide Courses

65 The University (3) (V)

Prerequisite: None. An interdisciplinary course on the principles, development, and organized structure of the university. Special emphasis will be placed on the role of the university in modern society and upon forces affecting the direction of the university and its potential for change. Methods include outside speakers, discussion groups and laboratory research on UMSL.

101 The School in Contemporary Society (3) (F,W,S)

Prerequisite: Sophomore standing. The introductory course in teacher preparation. An examination of the structure and function of the school in today's society, exploration of the social and anthropological factors related to current educational problems. Cognitive and affective objectives of education are the content for examining educational practices and for exploring each student's personal attributes as they relate to the teaching act. Required of students admitted to the School of Education. Prerequisite to other professional course.

201 Black Americans in Education (3) (V)

An examination and analysis of conditions affecting the education of Black Americans and their schools, with emphasis on relationships between schools and the Black Community, and needed changes in education.

220 Special Topics in Education (1-3) (V)

Prerequisite: Completion of 75 hours and consent of instructor. Examination of a special area or topic within the field of education. Topics to be considered will be announced prior to registration and may vary. For elective credit only. This course may be repeated for different topics. Not to exceed a total of 6 hours credit.

290 Independent Study (1-3) (V)

Prerequisite: Completion of 75 hours and consent of instructor. Independent study through readings, research, reports and conferences designed to provide depth in areas of study previously introduced in education courses. For elective credit only. May be repeated not to exceed a total of 3 hours credit.

363 Practicum in Individualized Instruction (3-6) (F,W)

Prerequisite: Completion of the course(s) to which assigned for instruction and consent of instructor. Supervised instruction in individualized programs. Seminar accompanies instructional experience. May be repeated.

Program

The Evening College was organized as a separate division of the University in 1964 to provide higher education for students in the St. Louis metropolitan area who, because of various circumstances, cannot attend day classes. The Evening College is committed to the education of mature persons who wish to live effectively in today's complex society.

The Evening College provides degree programs which conform to the same requirements and standards as day programs. Degrees offered consist of the bachelor of arts, bachelor of science in the administration of justice, bachelor of science in business administration, bachelor of science in chemistry, bachelor of science in economics, bachelor of science in education, and the bachelor of science in physics (with an applied physics option). In addition, the Evening College offers a bachelor of general studies degree which provides more flexibility for mature students in reaching their educational goals.

Majors available for the bachelor of arts degree are biology, chemistry, economics, English, history, mathematics, physics, political science, psychology and sociology. Courses are offered in 24 different academic areas including administration of justice, anthropology, art, astronomy, biology, business administration, chemistry, economics, education, English, French, geography, geology, German, history, mathematics, music, philosophy, physics, political science, psychology, sociology, Spanish, and speech.

Persons who wish to maintain their professional competence or broaden their educational background will find a broad array of college credit courses which may be taken by students not working toward a degree. Courses may be taken for credit or

Preprofessional courses are available for most professional degrees. Such programs are outlined under the section dealing with preprofessional programs to be found on page 174.

Recognizing the value of continuing education and career advancement, many institutions, businesses and industries in the St. Louis metropolitan area encourage employees to avail themselves of the educational opportunities which the Evening College affords.

The Veterans Administration has approved either full or part time study in the Evening College for educational benefits. If the student has never received Veterans Educational Assistance benefits, he or she should contact the St. Louis Office of Veterans Administration or the UMSL Veterans' Affairs Office.

Information concerning scholarships and financial assistance for Evening College students may be found under the student financial aid section of this bulletin (see page 18) or by contacting the Financial Aids Office, 10 Administration Building.

Students may qualify for advanced placement credit through the College Level Examination Program (CLEP) and military service training.

Since most Evening College students are employed full time, they normally carry less than a full academic load. However, the evening classes are scheduled between 5:20 p.m. and 9:25 p.m. to enable the student to carry a full load if he or she so desires.

Evening College classes are conducted according to the same standards traditionally maintained by the university. The library,

A broad array of college credit courses and eight undergraduate degree programs are provided by the Evening College for persons unable to attend day classes.

service, placement service, admissions office and cashier are available in the evening as well as day hours.

Academic Advising and Program Planning

Since information concerning academic programs and university regulations play an important role in academic success, all new students are encouraged to use these services. A staff of academic advisers will help the individual plan a program appropriate to his or her needs.

Transfer students or students who have accumulated 40 semester hours or more and who wish to be assigned to a major area adviser and to graduate from the Evening College must file a declaration of degree candidacy form.

Appointments for program planning are encouraged and may be made by calling the Evening College office.

Vocational Counseling and Career Planning

Students who desire assistance making a vocational choice or indepth personal counseling will also find professional counselors who have had extensive experience with interests and motivations of adults. Vocational and educational counseling involving the use of psychological tests is available to students at no cost. This service is designed to provide students with a better understanding of their abilities, aptitudes, interests, and personality traits as related to vocational-educational choice and planning. Career counseling which extends over a longer period of time is also available. Appointments may be made by calling the Evening College office.

The Evening College is located in 324 Lucas Hall - phone 452-5361

Bachelor of General Studies Degree

The bachelor of general studies degree is offered only through the Evening College. This degree is designed to provide a meaningful alternative for mature students for which the traditional degree programs currently offered by the university lack import and for whom a more interdisciplinary program would be beneficial.

The bachelor of general studies program is expected to appeal to a variety of students whose circumstances, goals, and aspirations are different from those of the "typical" college student. It provides the flexibility needed to enable the student, with careful advisement, to develop an individualized program of study that is meaningful and appropriate not only for the individual but also for the university and for the community.

Requirements for the Bachelor of General Studies Degree Program

Admission to the program requires that the student be admissible to the Evening College of the University of Missouri-St. Louis.

Students applying for the bachelor of general studies program must complete an application form. The student's application must be approved by the General Studies Committee and the dean of the Evening College.

In reviewing the application, the criteria to be applied will be:

- 1 That the applicant be mature and his or her program of studies be reasonable.
- 2 That the student will be a broadly educated person who has demonstrated the equivalent academic proficiency required for any other undergraduate degree at UMSL.

There is little difference between going to school during the day or evening at UMSL.



student be structured to meet the unique educational goals of that person and should not be readily available under any other degree program offered by UMSL.

4 That the recipient of the bachelor of general studies degree should be better qualified because of that degree to deal with his or her life goals than if he or she had some other degree.

General Education Requirements

General education requirements consist of 42 semester hours of college credit. Additional information describing this requirement may be found on page 32 of this bulletin.

Personal Emphasis Area

Each candidate for the degree of bachelor of general studies must complete a program of studies consisting of a minimum of 30 semester hours designed in terms of the student's educational goals. In consultation with the student's faculty adviser, the student shall develop a personal emphasis area, selecting those courses appropriate to the student's goal or purpose. Regardless of the focus, theme, or purpose, the personal emphasis area should result from self-examination and contribute to a self-realization and an advanced level of academic competence and achievement. The program of studies shall be approved by the student's faculty adviser, the dean, and the General Studies Committee. The student and faculty adviser shall periodically review the student's progress toward attaining his or her goal or objective and may make appropriate modifications in the program of studies, subject to the approval of the dean.

Hour and Grade Requirements

The bachelor of general studies requires completion of 120 semester hours.



No more than 30 semester hours of credit may be taken in any one department without the written consent of the chairman of that department.

A minimum of 45 semester hours must be earned in courses beyond the introductory level.

A cumulative grade point average of 2.0 is required both overall and in the personal emphasis area.

A minimum of 24 semester hours of graded credit must be completed in residence at UMSL, of which a minimum of 15 hours shall be in the personal emphasis area.

No more than 24 semester hours may be taken on the pass-fail option.

Credit for Experience, Special Projects, Examinations, and Nontraditional Forms of Study

Credit may be earned through the College Level Examination Program (CLEP) in accordance with established university policy or through examinations proposed or approved by a department of the university.

Credit may be earned through correspondence study, supervised independent study or research, and college level courses offered by television or similar educational media. It is the responsibility of the student to obtain approval for the credit to be applied under this option.

Students may receive credit for vocational experience, community service projects, or cultural activities only after they have completed 24 semester hours of course work in residence.

The Evening College is committed to the education of mature persons who wish to live effectively in today's complex society.

Credit may be granted for vocational experience when related to the student's personal emphasis area not to exceed three semester hours for each year of experience and only in exceptional circumstances up to a maximum of 12 semester hours. Each petition for credit for vocational experience shall be accompanied by a job description verified by the student's supervisor or employer or similar appropriate evidence. Credit may be granted only on recommendation of the student's faculty adviser and approval by the dean and the General Studies Committee.

Credit not to exceed six semester hours may be earned for participation in approved community service projects or cultural activities. The projects or activities must be formulated by the student and carried out under the supervision of a faculty member with the approval of the student's faculty adviser, the dean, and the General Studies Committee. A written report must be submitted by the student and approved by the supervisor upon the completion of the projects or activities.

Because of the experimental nature of the bachelor of general studies degree program, enrollment will be limited.

The Extension Division is the focus for a wide variety of problem-oriented research, credit courses, and noncredit programs involving the greater St. Louis area and the state of Missouri.

The Extension Division acts as the liaison between the university and the community to provide educational opportunities for individuals, regardless of educational level, competency, area of interest or profession, to enhance their own lives, and make a greater contribution to the economic, social, and cultural development of the community and state.

The Extension Division is the focus for a wide variety of problem-oriented research, credit courses and noncredit programs involving the greater St. Louis area and the state of Missouri.

The Extension Division includes the following areas:

Arts and Sciences

Arts and sciences extension includes the disciplines of the humanities, the social sciences, the arts and music, literature, the sciences, English, and mathematics. The programs in arts and sciences extension are oftentimes interdisciplinary and frequently deal with pressing social concerns or problems.

There are joint faculty appointees in four departments of the College of Arts and Sciences. A new internship program has been established for students from these academic departments to get first-hand experience in community organizations and institutions under the supervision of extension faculty and off-campus specialists.

Business Administration

Extension continuing education programs in business administration are offered to the general public in a variety of subject areas. Such programs may range from extensive courses to brief, specialized seminars designed for specific problems or current

administration extension areas include economic development, organizational development, management improvement, and individual and professional growth.

Special women's management programs are available to assist companies in complying with affirmative action requirements.

Education

The overall aim of education extension is to provide services which translate into better teaching and learning situations in the public and private school classroom. The programs and courses provide for meeting and completing Missouri certification requirements, provide a basis for work on an advanced degree, and provide for inservice professional growth.

Programs for Women

Special assistance for mature students returning to the campus is provided through the office for women's programs. Services include help in educational, vocational, and career planning; a modest testing program related to the above and available at a fee of \$1.00; and counseling relative to college credit available through the College Level Examination Program (CLEP).

Credit Courses

The Extension Division offers many credit courses at off-campus locations. This office coordinates and facilitates credit courses by the College of Arts and Sciences, School of Business Administration and School of Education.

Hospital employees and nurses in training may take courses in anatomy, chemistry, English, history, microbiology, psychology, and sociology. Third- and fourth-year undergraduate courses are offered to business, industry, and government employees.

The Extension Division provides an opportunity for persons to continue their education regardless of educational level, area of interest, or profession.



Noncredit Programs

The office of noncredit programs functions as a service unit for the Extension Division. The major responsibilities of this office are the administration and facilitation of continuing education programs on campus and all campus-sponsored continuing education programs off campus.

Enrollment

Any individual, group or organization can initiate or participate in education programs administered by the UMSL Extension Division to meet their own particular needs. Faculty, staff, and full-time regularly enrolled students at UMSL may enroll in a noncredit extension program at reduced fees or payment of direct costs (such as meals and instructional materials). Enrollment is contingent on availability of space.

Individuals, representatives of civic organizations, directors of business and industrial firms, and others who have specific educational needs are encouraged to write or call the UMSL Extension Division, or to contact the University of Missouri Extension Center in their home county.

Graduate programs are designed to develop a special professional competence and to communicate effectively in a scholarly setting.



Graduate study at UMSL embraces all study for degrees and certificates beyond the bachelor's degree. It is administered by the Graduate School under policies and regulations established by the graduate faculty of the university and by the Graduate Council. Graduate programs fall into two broad categories: professional programs directed by professional schools or committees, designed to develop a special professional competence and an advanced ability to explore problems peculiar to a professional field; and academic programs directed by academic departments or certain professional schools designed to develop command of a range of related subjects within an academic field, the ability to conduct original research, and to communicate effectively in a scholarly setting.

The university is authorized to grant the graduate degrees of master of arts, master of science, master of business administration, master of education, and doctor of philosophy. In addition, work leading to advanced certification is offered in certain fields of education. Degree programs have been established in the areas of biology, business administration, chemistry, economics, education, English, history, mathematics, political science, psychology, and sociology. In other academic areas, graduate work is offered and additional degree programs are in process of development.

From its beginnings, graduate education at UMSL has been guided by four broad purposes: development of excellence in scholarship; encouragement of creative productivity in research; fostering of the highest standards in professional competence and commitment; and development of skill in the communication of

comprehensive demands of the St. Louis region, the university has moved rapidly in the development of specialized facilities, a distinguished and creative faculty, and appropriate graduate programs to achieve these objectives.

Information regarding graduate programs is given in the *Graduate Bulletin* available from the admissions office. Inquiries regarding specific graduate programs may be addressed to the Office of Admissions, the Graduate School, or the appropriate department or school.

Nebraska

The University of Nebraska in Lincoln offers a program for Missouri residents in Architecture (quota twelve) where students may pursue a Bachelor of Architecture degree.

Kansas

The following programs are offered to Missouri residents at the Kansas campus indicated: Aeronautical Engineering at Wichita State University, Wichita with a B.S. in Aeronautical Engineering; Architecture at the University of Kansas, Lawrence with a Bachelor of Architecture or a B.S. in Architectural Engineering; Architecture at Kansas State University, Manhattan with a Bachelor of Architecture, B.S. in Building Construction or B.S. in Landscape Architecture; Grain Milling & Technology at Kansas State University, Manhattan with a B.S. in Feed Science and Management, Milling Science and Management, Bakery Science and Management, or Engineering Management; and Nuclear Engineering at Kansas State University, Manhattan with a B.S. in Nuclear Engineering.

Specialized Centers

The UMSL Archives offers research ties for persons engaged in local and regional studies in politics, culture, economics, society, and education.

Archives

The Archives and Manuscripts Division serves the faculty and students of UMSL and other educational institutions.

All manner of documentary materials concerning the heritage of St. Louis, the ongoing history of the region, and the social, political, cultural, and economic movements of American history are collected. The acquisitions are grouped into three sections: the University Archives, the Urban and Industrial Manuscripts, and the Oral History Program.

The division acts as a resource center for the teaching of social studies at all levels by duplicating for use, in either graphic or tape-recorded form, many of its holdings. A particular period in history could thus be illustrated by background research, photographs, and portions of tape recordings. Labor history, political activities, social history, and early aviation in St. Louis are some of the subjects which are emphasized in the photograph collections. Copies of photographs in the collections are made available to patrons on loan.

The staff can assist researchers in a wide variety of subjects. Recent projects have included studies on the role of St. Louis in the beginnings of organized labor; the occupational history of minority groups in the area; political studies of surrounding communities; family histories; students examining the evolution of the English language in St. Louis and its modification by immigrant groups; and the sociology of sports in St. Louis.

Community and Metropolitan Studies

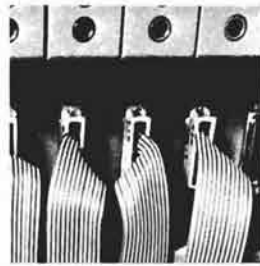
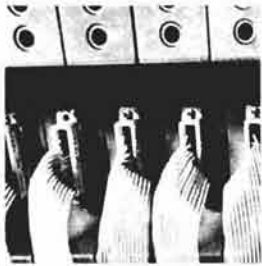
The Center of Community and Metropolitan Studies was created by the University Board of Curators in the spring of 1965, to perform a threefold function of research, community

service, and teaching. In order to promote a more comprehensive approach to the study and solution of urban problems, the center attempts to achieve as wide a degree of interdisciplinary cooperation as possible. The seven staff members who currently hold appointments in the center reflect a variety of disciplines, including sociology, economics, business administration, and political science.

Since education is viewed as one of the center's primary functions, an ongoing effort is made to involve students in urban research. As part of this effort, the center employs a limited number of graduate research assistants. In addition, a program is being developed to place qualified students in staff positions in area agencies, giving them a chance to acquire valuable knowledge and skills, and at the same time, to make significant contributions to the agencies in which they work.

Most of the center's research focuses on the immediate problems of St. Louis and the metropolitan area. Recent projects have concentrated primarily in the areas of housing, mass transit, employment, public finance, crime, and drug addiction. Frequently, the center cooperates directly with other university departments and with various government and private agencies, in order to facilitate the communication of information and reports to local citizens and policy makers.

In addition to its basic and applied research efforts, the center is concerned with developing new methods of information collection, storage, retrieval and analysis, and with developing and refining new problem-solving techniques, all as part of its ultimate goal of becoming a more effective tool to study and hopefully improve the conditions of the St. Louis area.



Computer Center facilities provide excellent modern computing services for educational, research, and administrative needs.

Community Education Development

Sponsored by the Extension Division and the School of Education, the Midwest Community Education Development Center serves Missouri, Kansas, and Oklahoma. The purpose of the center is to foster the development of community schools in this tri-state area. Specific services include: consultation with educators and interested groups of laymen; specialized community education courses, training, and continuing education programs; public information services; and modest financial support on a competitive basis through philanthropic foundation funds for communities wanting to start community schools.

Computer Center

Computer Center facilities on the four campuses of the University of Missouri provide excellent modern computing services, available to faculty, staff, and students for educational, research, and administrative computing needs.

Computing hardware facilities on the St. Louis campus include a General Automation SPC-16/65 computing system, which is linked to an IBM 370/168 in Columbia. The SPC-16 serves as a remote job entry station to the four megabyte 370, where all processing is done. Peripheral equipment at UMSL includes a CalComp plotter, an OpScan 100 optical scanner for test scoring and data collection, and a digitizer. There are also a wide variety of interactive terminals connected to the 370.

Support services such as consulting, programming, keypunching, library, and operations are provided by the local staff. Users have access to a large software inventory, which includes a data base of urban information.

faculty, staff, and students. Assistance or an account may be obtained in 103 SSBE. Jobs are submitted and picked up in 111 SSBE. Computer Center hours are 8-10 Monday through Friday, 9-5 on Saturday, and 1-5 on Sunday. Additional information about services can be obtained by calling 453-5131.

Engineering Center

A Graduate Engineering Center was established in St. Louis in 1964 as part of the continuing education program of the Extension Division of the Rolla campus of the University of Missouri. The center offers St. Louis area residents an opportunity to pursue graduate work in degree programs in engineering offered by the University of Missouri-Rolla. In 1968 the center moved to the UMSL campus. Master of science degrees in ten fields are currently offered through the center: aerospace, civil, electrical, chemical, environmental, mechanical, and metallurgical engineering; engineering management; engineering mechanics; nuclear engineering; and computer science.

Information concerning these programs may be obtained from the Director, UMR Graduate Engineering Center, University of Missouri-St. Louis.

International Studies

Organized in the fall of 1968, the Center for International Studies supports research activities, seminars, and conferences directed at: expanding understanding of international interactions; investigating domestic sources of externally directed national policies; improving methods and techniques of research in international affairs; and improving methods and techniques for communicating information and research findings in nonacademic settings.

research associates, student assistants, and secretarial and clerical personnel. Research associates hold annually renewable appointments in the center, typically with joint appointments in academic departments.

The center sponsors interdisciplinary and multidisciplinary courses and assists in staffing courses within individual departments. *Ad hoc* seminars may be arranged to meet specific needs or interests of faculty or of graduate or undergraduate students. The center similarly sponsors conferences and seminars, including an interdisciplinary Faculty Seminar in International Studies and the Monday Colloquium in the Social Sciences which meet frequently to discuss research methods, projects, and findings.

The center issues two types of publications: a Monograph Series and an Occasional Paper Series. Included in the Monograph Series are the proceedings of center conferences and special studies reporting the results of completed research projects. Included in the Occasional Paper Series are reports of preliminary findings of uncompleted research projects. The series reduces normal publication delays and allows an investigator to obtain early reactions to his research while it is still in progress.

KWMU

KWMU, 90.7 FM Stereo, presents fine arts, news, and public affairs 24 hours a day. A special student programming staff operates the facilities after midnight Fridays and Saturdays for "on-the-air" training. In association with the Extension Division, KWMU airs side-band (special frequency) instructional and credit programming simultaneously with its regular classical and news programming. KWMU, at 97,000 watts, with antenna height of 981 feet, is the

A variety of internship programs for interested students are offered by the various research centers, schools, and disciplines. Many research projects and internship programs are directly related to the urban laboratory of metropolitan St. Louis.

Library

The Thomas Jefferson Library has approximately 400,000 volumes and seats approximately 1,000 students. Some 15,822 reels of microfilm, 725,870 microfiche and microcards, and 87,451 government documents augment the basic reference and research collection.

Thirty-eight staff members and professional librarians are available to assist students and faculty members. Additional library materials are available through the Inter-Library Loan Service from other University of Missouri Libraries. Faculty and graduate students engaged in research can request materials from other libraries in the country through this service.

The library is open from 7:00 a.m. to 11:00 p.m. Monday through Thursday; 7:00 a.m. to 5:00 p.m. on Friday; 9:00 a.m. to 5:00 p.m. on Saturday and 2:00 p.m. to 10:00 p.m. on Sunday. Special hours are posted for holidays, vacation periods, and exam periods.

The Urban Journalism Center

The Urban Journalism Center is a joint venture of the School of Journalism, University of Missouri-Columbia, and UMSL. Graduate students enrolled at Columbia may spend a semester at the UMSL center in a concentrated program of research and reporting on St. Louis urban area problems.

The program includes a wide-ranging seminar in which students explore urban journalism through readings, discussions, and talks with area leaders and authorities.

Selected seniors in the Journalism School at Columbia may also attend the center for one semester.

The Urban Journalism Center is under the supervision of a resident School of

Those students interested in officer education programs may enroll in the Army ROTC program hosted by Washington University or the Air Force ROTC program sponsored by St. Louis University. They provide undergraduate students with the opportunity to combine academic study with a military officer's educational program. The two services conduct courses leading to regular or reserve commissions at 4200 Forest Park Avenue.

For further information concerning these programs, write or call the following: Professor of Military Science, Washington University, telephone 863-0100, extension 4662, or Director, Aerospace Studies Program, St. Louis University, telephone 652-1022.

Air Force Aerospace Studies

AS 101-102 United States Military Forces in the Contemporary World

A study of the doctrine, mission and organization of the United States Air Force, U.S. strategic offensive and defensive forces: their mission, function and employment of weapon systems; civil defense; aerospace defense; operation of tactical air forces, with special attention to limited war; review of Army, Navy and Marine general purpose forces. One class hour per week. A leadership and management laboratory is required one hour per week.

AS 201-202 The Development Growth of Air Power

This course examines the development of air power over the past sixty years. It traces the development of various concepts of employment of air power and focuses upon factors which have prompted research and technological change. A variety of events and elements in the history of air power is stressed, especially where these provide significant examples of the impact of air power on strategic thought.

AS 301-302 National Security Forces in Contemporary American Society (3)

Focusing on the Armed Forces as an integral element of society, this course provides an examination of the broad range of American civil-military relations and the environmental context in which defense policy is formulated. Special themes include: the role of the professional officer in a democratic society; socialization processes within the Armed Services; the requisites for maintaining adequate national security forces; political, economic and social constraints upon the national defense structure; and the impact of technological and international developments upon strategic preparedness and the overall defense policy-making process.

AS 401-402 The Professional Officer (6)

A study of Air Force leadership and management including concepts of leadership, officer professionalism, behavioral science, variables affecting leadership, styles of leadership, legal responsibilities and concepts and principles of Air Force Management. Emphasis on student involvement and practice of communicative skills. Three class hours per week. A leadership and management laboratory provides advanced leadership experiences in officer-type activities, requiring an additional hour per week.

AS 101L-102L, AS 201L-202L, AS 301L-302L, AS 401L-402L Leadership and Management Laboratory

Involves a study of Air Force customs and courtesies; drill and ceremonies; career opportunities in the Air

a practical, supervised training laboratory, which typically includes field trips to the Air Force installations throughout the United States.

Military Science

Prerequisites may be waived by consent of professor of military science. Course credit is for two semesters or one full year enrollment in the course.

MS 101-102 Introduction to Military Science (2)

Acquaints the student with the ROTC program and the career opportunities afforded ROTC graduates; provides a knowledge of the customs and traditions of the military service; familiarizes the student with the service weapon; develops a basic understanding of the organization and management of the U.S. Army and the Army's place in the world affairs. One and one-half class hours per week.

MS 201-202 Applied Military Leadership and Management (2)

Prerequisite: MS 101-102 or equivalent. Surveys American Military History from colonial times to the present, emphasizing the central importance of leadership in the growth and development of the Army; fundamentals of leadership; operations of the basic military team including missions, organization, communication and control; introduces military topography including the use of terrain maps and aerial photos. One and one-half class hours per week.

MS 301-302 Advanced Leadership and Management (6)

Prerequisite: Completion of the basic course or equivalent and selection by the professor of military science. Case studies in leadership, management and decision making; development of ability to communicate with emphasis on military situations, advanced offensive and defensive tactical operations (to include military geography, weapons systems and communication systems) and the role of the various branches of the Army, discussion of the military environment; preparing, presenting and evaluating military instruction. Three class hours per week.

MS 401-402 Theory and Dynamics of the Military Team and Seminar in Leadership and Management (6)

Prerequisite: MS 301-302. Studies of military operations and the military teams to include military geography and the coordination and planning between elements of the team; analysis of selected leadership and management problems involved in unit administration, military justice, and the Army readiness program; the position of the U.S. in the contemporary world scene discussed in the light of its impact on leadership and management problems of the military service; obligations and responsibilities of

MS Military Science Leadership Laboratory
Progressive development of leadership abilities through participation in leadership activities including command and staff action, familiarization with the service weapon, drill and ceremonies, field training exercises, and civilian and military guest speakers. Purpose of leadership laboratory is to develop leadership through demonstrated teamwork, esprit de corps, and unity of effort toward a common goal, emphasizing duties and responsibilities of junior leaders. Required of all students.

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Mrs. William C. Tucker
Warrensburg, Missouri

John Sam Williamson
Columbia, Missouri

Terms Expire January 1, 1977

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598 Lucas, 453-5591

Administration, Philosophy and Secondary
Education Department
507 SSBE Tower, 453-5944

Admissions and Records
108 Administration Building, 453-5451

Arts and Sciences, College of
305 Lucas, 453-5345, 5501

Behavioral Studies and Research Department
406 SSBE Tower, 453-5791

Biology Department
326 Stadler, 453-5811

Business Administration, School of
487 SSBE, 453-5881

Chancellor's Office
247 Benton, 453-5252

Chemistry Department
438 Benton, 453-5311

Economics Department
907 SSBE Tower, 453-5351

Education, School of
440 SSBE, 453-5106

Elementary Education, Department
306 SSBE Tower, 453-5782

English Department
494 Lucas, 453-5541

Evening College
324 Lucas, 453-5161

Extension Division
201 J.C. Penney Continuing Education
Building, 453-5961

Faculties, Office of the Dean of,
247 Benton, 453-5101

Fine Arts Department

Graduate School
324 Benton, 453-5178

History Department
484 Lucas, 453-5681

Mathematical Sciences Department
500 Clark, 453-5741

Modern Foreign Languages and Literatures
Department
554 Clark, 453-5831

Philosophy Department
599 Lucas, 453-5631

Physics Department
517 Benton, 453-5931

Political Science Department
807 SSBE Tower, 453-5521

Preengineering Program
517 Benton, 453-5934

Prejournalism Program
506 SSBE Tower, 453-5485

Prelaw Program
807 SSBE Tower, 453-5521

Premedicine Program
326 Stadler, 453-5811

Prepharmacy Program
438 Benton, 453-5311

Psychology Department
224 Stadler, 453-5391

Sociology/Anthropology Department
707 SSBE Tower, 453-5284

Speech Communications
590 Lucas, 453-5485

Student Teaching Office,
455 SSBE, 453-5823

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1974 Fall Semester

Regular Registration, Day Students
August 22, 23

New Student Orientation
August 22, 23

Evening College Registration
August 26, 27 4:30-8:30 pm

Graduate School Registration
August 26, 27 4:30-8:30 pm

Classwork begins
August 29 7:40 am

Labor Day Holiday
September 2

Deadline for entering course for credit
September 12

Deadline for dropping course without grade
September 26

Mid-Semester
October 17

Thanksgiving Recess begins
November 27

Classwork resumes
December 2 7:40 am

Classwork ends
December 9 10:30 pm

Intensive Study-no classes scheduled
December 10, 11

Final Examinations begin
December 12

First Semester closes
December 20 5:00 pm

1975 Winter Semester
Registration, Day Students
January 9

Evening College Registration
January 13, 14 4:30-8:30 pm

Graduate School Registration
January 13, 14 4:30-8:30 pm

Classwork begins
January 20 7:40 am

Spring Recess begins
March 21 10:30 pm

Classwork resumes
March 31 7:40 am

Classwork ends
May 2 10:30 pm

Intensive Study-no classes scheduled
May 5, 6

Final Examinations begin
May 7

Second Semester closes
May 15 5:00 pm

Commencement
May 20

1975 Summer Session

Evening College Registration
June 4, 5 4:30-8:30 pm

Graduate School Registration
June 4, 5 4:30-8:30 pm

Regular Registration
June 9

Classwork begins
June 10 7:40 am

Independence Day Holiday
July 4

Final Examinations
July 31, August 1

Summer Session closes, end of day
August 1

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