UMSL Bulletin 1964-1965

University of Missouri-St. Louis

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SPANISH

Students entering with no high school units in Spanish should take 1; students entering with one high school unit in Spanish should take 1 for which they will receive 3 hours credit; students entering with 2 high school units in Spanish should take 2; students entering with 3 high school units in Spanish may take 103 or 105.

1 Elementary Spanish (5) f.w.
An elementary course in which the student acquires familiarity with the written and oral aspects of the language. Additional practice in aural comprehension and pronunciation through use of the language laboratory.

2 Intermediate Spanish (5) f.w.
Continuation of Course 1. Increased practice in conversation, study of grammar rules for correct usage, reading for pleasure, simple composition. Additional practice through use of the language laboratory.

103 Spanish Reading (3) f.w.
Prerequisite: Spanish 2 or equivalent. Essentially a reading course, consisting primarily of essays, background materials on Spain and Latin America, and contemporary plays.

106 Spanish Composition (2) w.
Prerequisite: Spanish 2 or equivalent. Grammar review and composition.

109 Spanish Conversation (3) w.
Prerequisite: Spanish 2 or equivalent. A course in oral practice and composition. Emphasis is on the oral aspects of Spanish: Reading of literature, composition, and life in Spain.

STATISTICS

31 Elementary Statistics (3) f.w.
Prerequisite: Sophomore standing and Math 10. Introduction to descriptive statistics including collection, organization, and presentation of data; averages, dispersion. Introduction to statistical inference, probability, index numbers, time series, correlation.

ZOOLOGY

1 Introductory Zoology (5) f.
Introduction to important principles and concepts of zoology. Emphasis on: cell biology; evolution; genetics; ecology; structure, function, and development of the organism.

202 Comparative Anatomy of Vertebrates (5) w.

UNIVERSITY CALENDAR

ST. LOUIS CAMPUS

FALL 1964-65

FIRST SEMESTER, 1964-65
September 10—Thursday, Registration, 8-12 a.m., 1-4 p.m.
September 11—Friday, Registration Continues, 8-12 a.m., 1-4 p.m.
September 14—Monday, Opening Convocation, 10 a.m.
September 14—Monday, Freshman and New Student Orientation, 2 p.m.
September 15—Tuesday, Classes Begin, 8 a.m.
November 26, 27—Thursday, Friday, Thanksgiving Holiday
November 30—Monday, Classwork Resumes, 8 a.m.
December 18—Friday, Christmas Vacation Begins, End of Day
January 4—Monday, Classwork Resumes, 8 a.m.
January 15-22—Final Examinations
January 22—Friday, First Semester Closes, End of Day

WINTER 1964-65

SECOND SEMESTER, 1965
January 28—Thursday, Registration for Second Semester, 8-12 a.m., 1-4 p.m.
January 29—Friday, Registration Continues, 8-12 a.m., 1-4 p.m.
February 1—Monday, Classwork Begins, 8 a.m.
April 14—Wednesday, Easter Recess Begins, End of Day
April 19—Monday, Classwork Resumes, 8 a.m.
May 21-28—Final Examinations
May 28—Friday, Second Semester Closes, End of Day

SUMMER SESSION, 1965
June 21—Monday, Registration, 8-12 a.m., 1-4 p.m.
June 22—Tuesday, Classwork Begins, 8 a.m.
August 13—Friday, Summer Session Closes, End of Day
THE BOARD OF CURATORS

Term Expires January 1, 1965

Henry Andrae .......................... Jefferson City
James A. Finch, Jr. ....................... Cape Girardeau
Doyle Patterson .......................... Kansas City

Term Expires January 1, 1967

John H. Caruthers .......................... St. Louis
Oliver B. Ferguson .......................... Fredericktown
Orestes Mitchell, Jr. .... St. Joseph

Term Expires January 1, 1969

Robert Neill .......................... St. Louis
Ike Skelton .......................... Lexington
Edwin J. Stark .......................... Louisiana

OFFICERS OF THE BOARD

James A. Finch, Jr., President ............... Cape Girardeau
Oliver B. Ferguson, Vice President .......... Fredericktown
Mary Robnett, Secretary .................. Columbia
R. B. Price, Treasurer .................. Columbia
Rex Z. Williams, Treasurer ............... Rolla

OFFICERS OF ADMINISTRATION

ELMER ELLIS, A.B., A.M., Ph.D., LL.D., President of the University of Missouri

JAMES L. BUGG, Jr., Ph.D., Dean of Faculties
STEPHEN C. GRIBBLE, Ph.D., Assistant Dean
HILBERT E. MUELLER, Ed.D., Director of Admissions
HELEN SILVERMAN, M. Lib. Sc., Librarian
JOHN P. PERRY, M.S., Business Officer
BILLIE SNYDER (Mrs. F. Eugene), Administrative Assistant to the Dean
KATHRYN MCGIBBONS, A.B., (Mrs. J. Harmon), Assistant to Director of Admissions
NANCY WRIGHT, (Mrs. Fred L.), Secretary to the Business Officer

MECHANICAL ENGINEERING

1 Engineering Drawing (3) f.
Learning, use of instruments, freehand sketching, orthographic projection. Detail and assembly drawings, dimensioning, drafting conventions. No credit awarded for Arts and Science degrees.

10 Descriptive Geometry (3) w.
Prerequisite: course 1 and preceded or accompanied by Mathematics 9 and 10. Graphical solutions of space problems by the use of orthographic drawing principles involving points, lines and plane surfaces, intersections and developed surfaces. No credit awarded for Arts and Science degrees.

MUSIC

23 Introduction to Music (3) f.
A brief introduction to the materials of music, music theory, and musical forms, accompanied by a historical survey of the most significant works, composers, and musical styles from Gregorian chant through the twentieth century. Two lecture hours and 1 1/2 hours of listening laboratory per week.

24 Masterpieces (3) w.
Prerequisite: Music 23 or permission of instructor. An elementary analysis of ten selected masterpieces from the Renaissance through the twentieth century. Two lecture hours and 1 1/2 hours of listening laboratory per week.

PHILOSOPHY

1 Elementary Logic (3) f.w.
The formal principles of deduction and induction with special attention to criticism of argument, detection of fallacies, and certain philosophic problems arising out of logic.

5 Introduction to Philosophy (3) f.w.
The principal problems of philosophy and their typical solutions with special reference to problems of knowledge, of the natural world, and of society.

POLITICAL SCIENCE

1 American Government (3) f.w.
Formation, development and structure of the American Federal system; the electorate; civil liberties; parties and pressure groups; the legislative, executive and judicial branches; survey of Missouri Constitution and government. Fulfills the state requirement.

101 Introduction to International Law, Organization and Politics (3) f.
Nature, source and development of international law; structure and functions of existing international organizations; analysis of the components of international power and the techniques of power politics.

121 Introduction to the Theory and Practice of Communism (3) w.
Survey of the philosophy of Marxism; international socialism before 1917; development of communism in the USSR with emphasis on political and social institutions.

PSYCHOLOGY

1 General Psychology (3) f.w.
A survey of the facts, principles, and methods in the study of human behavior.

30 Applied Psychology (3) f.w.
Prerequisite: Psychology 1. The application of psychology to business with emphasis on advertising, personnel selection, and efficiency. Brief reference to personal efficiency, law, medicine, and education.

SOCIOLOGY

1 Introductory Sociology (3) f.w.
Study of human behavior as related to the human group. Society, culture, and personality analyzed, using sociological concepts and principles.

50 Social Disorganization (3) f.w.
Prerequisite: Sociology 1. Analysis of social problems, such as crime, delinquency, mental illness, and suicide. Focus on both personal and social disorganization. Field trips.

200 Race and Ethnic Relations (3) w.
Prerequisite: Sociology 1. Historical and contemporary examination of social, cultural, social-psychological aspects of race and ethnic categories.

290 Urban Sociology (3) f.w.
Prerequisite: Sociology 1. Historical development, structures, and functions of the city. Urban social relations and implications for personality. Field Trips.
106 German Composition and Conversation (3) f.w.
Prerequisite: 105 or equivalent. Practice in writing, speaking and understanding German with emphasis on idiomatic usage. Writing of compositions with attention to correctness in style. Class conversation on topics taken from German newspaper articles.

HISTORY
1 Western Civilization I (3) f.
Survey of the evolution of Western Civilization emphasizing the important elements in the Western political and cultural tradition. The relationship of ideas and institutions to historical background. From the earliest times to the end of the Reformation.
2 Western Civilization II (3) w.
Continuation of Western Civilization I to modern times.
20 American History (3) f.
The development of America from the first English settlements to the Civil War with an emphasis on the evolution of American culture and institutions. This course fulfills the state requirement.
21 American History (3) w.
Prerequisite: History 20. American history from the Civil War to the present.
101GH History Honors (3) f.
Prerequisite: Permission of the instructor.
110 Asian Civilization I (3) f.
Prerequisite: Sophomore standing. The development of Asian civilization from the earliest times to the Manchu conquest with emphasis on the relationship of ideas and institutions to the historical background.
111 Asian Civilization II (3) w.
Prerequisite: Sophomore standing. A continuation of History 110 with emphasis on the Asian response to the Western incursion. Either 110 or 111 may be taken separately.
234 Modern Europe (3) w.
Prerequisite: Sophomore standing. A survey of Europe in modern times with emphasis on the growth of "isms" and the transition from the ideas of the nation-state to that of a European community.
256 Foundations of Recent United States History (3) f.
Prerequisite: History 20 and 21. Economic, social, and political development of the United States from the end of Reconstruction to 1920.
257 Recent United States History (3) w.
Prerequisite: History 20 and 21. United States History from 1920 to the present.

MATHEMATICS
3 Basic Algebra (2) f.w.
Fundamentals of algebra for students who have two years or less of mathematics in high school, excluding general mathematics. No credit in Arts and Science.
7 Introductory College Algebra (3) f.w.
For students in Elementary Education, others by Dean's request.
9 Trigonometry (2) f.w.
Prerequisite: one and one-half high school units in algebra. This course should be taken concurrently with Math 10 by any student who intends to take Math 80, unless the student has had a course in trigonometry in high school.
10 College Algebra (3) f.w.
Prerequisite: (a) two and one-half high school units of math, including one and one-half high school units of algebra, or (b) Math 3. Review of fundamental concepts and topics from elementary algebra. Emphasis on polynomial functions and graphic representation of functions. Equations, systems of equations, inequalities, the binomial theorem, mathematical induction.
15 Mathematics: Ideas and Structure (3) f.w.
Prerequisite: Two high school units in mathematics, excluding general mathematics. This course offers the student an introduction to the spirit of mathematics and to modern mathematical thought. The course is designed for the student who does not intend to major in mathematics or science.
80 Analytic Geometry and Calculus I (5) f.w.
Prerequisite: A grade of C or better in courses 9 and 10, or four high school units of mathematics, including two units of algebra. Introduction to analytic geometry, differential calculus and integral calculus. Courses 80, 175, and 201 are a sequence of courses which have integrated the material formerly contained in courses in plane and solid analytic geometry and differential and integral calculus.
175 Analytic Geometry and Calculus II (5) f.w.
Prerequisite: A grade of C or better in Math 80. Selected topics from plane analytic geometry and calculus.
201 Analytic Geometry and Calculus III (5) f.w.
Prerequisite: A grade of C or better in Math 175. Solid Analytic geometry and selected topics in calculus.
230 Theory of Equations (3) w.
Prerequisite: Math 175 with a grade of C or better, or consent of instructor. Solution of algebraic equations, systems of equations, relations among the roots, and numerical methods.

FACULTY
Allen, David L., M.A., English
Andalafte, Edward, Ph.D., Mathematics
Arendes, Mary Joyce, B.A., Mathematics
Ambroster, Charles W., M.S., Chemistry
Beckman, Kenneth R., M.A., Mathematics
Bugg, James L., Jr., Ph.D., History
Burns, Roy Gene, Jr., Ph.D., History
Campbell, David Lee, M.S., Zoology
Chisholm, Scott, M.A., English
Crowley, Frances F. (Mrs. C. J.), Ph.D., Spanish
Driscoft, Glen R., Ph.D., History
Duffe, Mary (Mrs. Robert), B.J., French
Dulka, Richard, M.A., Spanish
Eickhoff, Harold, M.A., History, Acting Chairman, Division of Social Sciences
Fischer, Ann (Mrs. Robert B.), M.A., English
Garst, Thomas, M.A., English
Gleeson, Owen Michael, M.S., Mathematics
Gribble, Stephen C., Ph.D., Education
Hamlin, William C., Ph.D., English, Acting Chairman, Division of Humanities
Heys, Reginald W., M.A., Economics
Kuperman, Aharon, M.S., Psychology
Lasch, Zora (Mrs. Robert), Ph.D., Philosophy
Lone, Jacqueline V., M.A., Spanish
Mathes, Irma Bendel (Mrs. J. O.), M.A., Sociology
McDaniel, Wayne L., M.A., Mathematics, Acting Chairman, Division of Mathematics and Science
Montag, George E., M.A., English
Murry, Donald A., Ph.D., Economics
Ostergaard, A.J., M.A., Engineering Drawing
Parks, Jane C., M.A., English
Ramirez, Noemi (Mrs. Alejandro), M.A., Spanish
Reals, Willis H., Ph.D., Education
Reibstein, Erhard H., M.A., German
Schweib, J. Herbert, M.A., French
Turner, Emery C., M.B.A., Accounting—Statistics
Wetteroth, Catherine, M.A., German
Whealen, William F., M.A., English
Woodard, William L., M.A., Political Science
Wu, Joseph, M.A., Philosophy
50 Narration (3) F.W.
Prerequisite: 6 hours composition or equivalent; 1 semester any literature course. Study, practice of narrative writing including original short stories.

60 Exposition (3) F.W.
Prerequisite: six hours of composition or the equivalent. Study and practice of expository writing including original essays.

65GH Composition (3) F.W.
For freshmen showing superior ability in placement tests. Students passing with A or B granted 3 hours advanced credit.

LITERATURE

5 Masterpieces (3) F.W.
Open to all students. Introduction to the study of poetry and the short story.

6 Masterpieces (3) W.
Open to all students. Introduction to the study of drama and the short novel.

30 English Life and Literature (3) F.W.
A general survey course in English Literature. Not open to freshmen. These courses or their equivalent are required for all upperclass English courses at the University of Missouri except General Literature, The Structure of American English, The English Novel, and The American Novel.

40 English Life and Literature (3) F.W.
A general survey course in English Literature. Not open to freshmen. These courses or their equivalent are required for all upperclass English courses at the University of Missouri except General Literature, The Structure of American English, The English Novel, and The American Novel.

120GH Perspectives—A Study of Literary Types (3) F.W.
This special readings course is open only to students having completed one full semester and who are eligible for Honors sections.

175 American Literature (3) F.
Prerequisite: English 65GH or sophomore standing. General survey of American Literature from the Colonial period to the Civil War.

176 American Literature (3) W.
Prerequisite: English 65GH or sophomore standing. General survey of American Literature from the Civil War to the present.

FRENCH

Students entering with no high school units in French should take 1; students entering with 1 high school unit in French should take 1, for which they will receive 3 hours credit; students entering with 2 high school units in French should take 2; students entering with 3 high school units in French may take 2 for 3 hours credit, or course 103.

1 Elementary French (5) F.W.
Beginning course in composition, conversation, and reading. Five recitation and two laboratory periods per week.

2 Intermediate French (5) F.W.
Continuation of course 1. Five recitation periods per week. Two additional periods in the language laboratory are provided for students who demonstrate oral-aural aptitude in course 1.

103 French Reading (3) F.W.
Prerequisite, course 2 or equivalent. Cultivation of reading skill combined with introduction to the humanistic values of the literature.

GERMAN

Students entering with no high school units in German should take 1; students entering with 1 high school unit in German should take 1, for which they will receive 3 hours credit; students entering with 2 high school units in German should take 2; students entering with 3 high school units in German may take 2 for 3 hours credit, or course 103.

1 Beginning German (5) F.W.
Emphasis on pronunciation, grammar and the acquisition of basic vocabulary and simple conversational patterns. Additional practice in aural comprehension and pronunciation through use of the language laboratory. Elementary reading.

2 Intermediate German (5) F.W.
Prerequisite: 1 or equivalent. Continuation of study of grammar, vocabulary and aural-oral language patterns begun in German 1, with some practice in composition and conversation. Continued use of language laboratory to improve comprehension. Increased emphasis on reading.

103 German Reading (3) F.W.
Prerequisite: 2 or equivalent. Development of reading skill and appreciation of German literature through the study and discussion of short prose and poetry selections and novellas.
The University of Missouri

St. Louis Campus

A General Statement on Purpose and Objectives

A university is the lengthened shadow of many men. If it is fortunate, its leaders are men of wisdom and courage who have formulated a vision of greatness, and have mastered the path leading to the attainment of that vision. The University of Missouri has, through much of its history, been fortunate, for its leaders have wisely defined its purpose as threefold: the discovery, the dissemination, and the application of knowledge. Or, put another way, it envisions the aim of the state university as that of research, teaching, and service to the people of Missouri. Insofar as it transforms this vision into reality, it performs its true purpose, which is leadership in the intellectual, cultural, professional, business, and agricultural development of the state.

The changing demands of an omnipresent future have already altered the University of Missouri from the small liberal arts college of 1840, emphasizing a classical curriculum, to a large university embracing fourteen schools and colleges in Columbia, three campuses outside Columbia, and an Extension Division which brings its services to virtually every county, city, and village in Missouri. In its classrooms are educated thousands of students each year in a catalogue of disciplines which range from accounting to zoology; in its libraries and laboratories a constant search goes on to broaden the boundaries of knowledge; each year its programs to citizens in all parts of the state grow in size and quality.

The St. Louis Campus opened in September, 1960, as the Normandy Residence Center of the University of Missouri. Its establishment as a two year college was the result of the leadership of Mr. Ward Barnes, Superintendent of the Normandy School District, the Normandy School Board, the Normandy Citizens Committee on Higher Education, and the tax payers of the Normandy School District who voted a bond issue of $600,000 to purchase the property. Until September of 1963 the School District and the University of Missouri co-operated in the operation of the Residence Center, under the administrative leadership of Mr. C. E. Potter, Principal of the Normandy High School. During its 1963 session, the General Assembly of Missouri included in its budget an appropriation which provided the necessary funds for the integration of the Normandy Residence Center and the University of Kansas City into an expanded University of Missouri system.

The St. Louis Campus is, thus, in part, the reality growing from the vision and wisdom of a group of educators and other citizens of the metropolitan area, and the foresight of an able university president. But of equal significance is the growing educational need of the state's largest urban area, a need which the state university had to meet if it would retain its vision. Now the youngest and smallest of the four campuses, it is destined to become one of the largest.

The University of Missouri has two major objectives in establishing the St. Louis Campus: to provide undergraduate education of high quality and to serve the people of the metropolitan area by providing the assistance and the leader-
ship which they have a right to expect from their state university. The Campus
will expand as rapidly as a proper faculty can be assembled and necessary facili-
ties constructed. The student body will grow from the present 680 to 1,200
when the first new building is completed in 1965, to some 5,000 by 1970, and to
approximately 15,000 by 1975. Even this rapid expansion can hardly keep pace
with the needs of the metropolitan area which by 1970 will contain approximately
forty percent of the college student population of the state.

Since the greatest need at the present time is undergraduate education, the
St. Louis Campus will concentrate first on establishing a liberal arts college with
departments of Education and Business Administration. Students interested in
such specialized fields as Engineering, Journalism, or Agriculture, can receive
their first two years of training on this campus before transferring to Columbia
or Rolla. Students desiring the necessary preparatory training for Law School,
Medical School and Graduate School can complete four years of undergraduate
education on this campus.

The University of Missouri, as it has often in the past, is again altering its
method to achieve more adequately its purpose. Four equal campuses will com-
prise one university system with a common policy on admission, fees, research,
faculty, and quality of education. All credits earned on any campus will transfer
to each of the others. The emphasis of each will vary in accordance with the
needs of the particular area, but all are equally dedicated to the common ideals
of educational leadership and service which have, from its inception, characterized
the University of Missouri.

General Statement on Courses: At present two years of college work are being
offered in Accounting, Botany, Chemistry, Economics, Education, English,
French, German, History, Mathematics, Mechanical Engineering, Philosophy,
Political Science, Psychology, Sociology, Spanish, Statistics, and Zoology. The
third year of college work will be added in the fall of 1965 and the fourth year
in the fall of 1966. The first senior class will be graduated in June of 1967. The
degree of Bachelor of Arts will be conferred upon those who have fulfilled the
necessary requirements after that date.

ADMISSION

Inquiries regarding entrance should be addressed to the Dean, University of
Missouri, St. Louis Campus, 8001 Natural Bridge Road, St. Louis, Missouri,
63121.

It is the policy of the University of Missouri, St. Louis Campus, to admit
into regular standing all high school graduates with satisfactory records.

Graduates of fully accredited high schools who have passed their high
school courses with satisfactory marks may be admitted by certificate or trans-
cript of record without examination. A student who is unable to qualify for ad-
mission by certificate and who is a graduate of a four-year high school, or who
is at least 18 years of age may qualify for admission by satisfactorily passing the
high school level General Developments tests prepared for the United States Armed Forces Institute.

hour minimal requirement. Normally the Office of the Dean will not approve
the withdrawal from the following:

1. Courses which should be completed in a chronological or sequential de-
velopment, especially foreign languages;

2. English Composition.

After the beginning of the fifth week of a semester, or the second week of a
summer session, a student may withdraw from a course with the approval of his
adviser and of the Dean with a grade of "Excused", provided he is receiving a
passing grade at the time of his withdrawal. Otherwise, he will receive a grade
of "F".

STUDENT PROGRAMS

Honors Program: All students who maintain a grade average of B or higher
and entering freshmen who ranked in the upper 15 percent of their high school
classes and in the upper 15 percent on the Freshman Placement Tests adminis-
tered by the University are eligible to enroll in honors courses.

Advising System: Each student is assigned an adviser who helps plan the
student's schedule of classes, gives information about the college, and advises
the student about his individual academic problems. A student who has decided
upon his major area of study is assigned an adviser who is a member of the de-
partment in which that area is centered.

Placement Tests: All students enrolling in the University of Missouri, St.
Louis Campus, with fewer than 24 hours of college credit must take the battery
of placement tests prior to registration. The results of these tests are useful in
planning the student's program and in considering his educational objectives.

DESCRIPTION OF COURSES

The courses offered are listed alphabetically. A few weeks before the begin-
ning of each semester a schedule of courses is published which lists the specific
courses to be offered for that semester with the time of meeting and the room
for each course.

The University reserves the right to cancel any course listed in the Descrip-
tion of Courses or in the Schedule of Courses for any semester or to withdraw
any course which does not have an adequate enrollment at the end of the regis-
tration period.

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

1 to 99, courses primarily for freshmen and sophomores;
100 to 199, courses primarily for upperclassmen.

Individual restrictions of certain courses are listed under prerequisites.

Credit: The unit of credit at the University is the semester hour. In general,
a course valued at three semester hours meets three periods weekly for one
semester.

Following the title of the course, the number of credits is given in paren-
theses. The small letters following the title of the course and the credit it car-
after the semester begins, so long as total enrollment does not fall below the 12
A student may withdraw from a course with a grade of "Excused" until 4 weeks

The University of Missouri, St. Louis Campus, grants advanced standing to entering freshmen who, on the basis of performance on comprehensive examinations, demonstrate proficiency in certain college-level courses such as English, mathematics, history, botany, zoology, chemistry, accounting, political science, and foreign languages. Students should consult their high school principals or counselors for information concerning the advanced standing program. Entering freshmen desiring to take the examinations should write to the Dean.

Advanced Standing Tests for Freshmen

The University of Missouri, St. Louis Campus, grants advanced standing to entering freshmen who, on the basis of performance on comprehensive examinations, demonstrate proficiency in certain college-level courses such as English, mathematics, history, botany, zoology, chemistry, accounting, political science, and foreign languages. Students should consult their high school principals or counselors for information concerning the advanced standing program. Entering freshmen desiring to take the examinations should write to the Dean.

Missouri Freshmen

Top Third: Applicants will be accepted and admission granted at any time during the senior high school year to students who ranked in the top third of the class at the end of the first six semesters.

Middle Third: Applications will be accepted and admission granted at any time during the final semester of the senior high school year to students who ranked in the middle third of the class at the end of the seventh semester.

Lowest Third: Students who rank in the lowest third of the high school graduating class may submit applications during the final semester of the senior year. Before admission can be considered Placement Tests and, in some cases, additional tests are required. Some students are required to qualify through summer work. Students in this group, if admitted, will be on scholastic probation.

Out-of-State Freshmen

Out-of-state students must rank in the upper half of their high school graduating classes in order to be eligible for admission by certificate. However, residents of the St. Louis metropolitan area, or applicants approved by the Committee on Entrance, are admitted on the same basis as Missouri residents.

Admissions Procedures

Freshman Students. A student entering the University for the first time should send an official copy of his high school record and should fill out and return an Application for Admission and a Report of Medical History form. All freshman students are required to take the Freshman Placement Tests before their registration can be completed. Missouri residents may take these tests during the spring at the nearest testing center. Applicants may contact their high school counselor for specific information.

1. Missouri residents. Graduates of fully accredited high schools who present the required units and who rank in the upper two-thirds of their graduating classes are admitted in good standing. Those who rank in the lowest third of their classes are required to complete one or more test batteries and, if admitted, are placed on probation. Students who rank in the lowest third of their classes may be required to attend the summer session.

2. Out-of-state residents. Graduates of fully accredited high schools who are not residents of the state of Missouri must rank in the upper half of their graduating classes. A non-refundable transcript evaluation fee of $10 must accompany the application for admission. Checks or money orders should be made payable to the University of Missouri. Upon notification of acceptance the applicant will be requested to submit a non-refundable advance payment on his registration fee. This amount will be credited to the student's incidental fee when he enrolls in the University.

Transfer students from other higher institutions must submit official transcripts of high school and college work, an Application for Admission, and a Report of Medical History form. College transcripts must indicate that the student has a satisfactory record averaging C or better for all work undertaken and that he is in good standing. Official transcripts from each college attended must be sub-
mitted to the Office of Admissions. Out-of-state undergraduate applicants must submit a $10 non-refundable transcript evaluation fee with their application for admission. Application forms and credentials for the fall semester should be submitted by August 1; for the winter semester by January 1; and for the summer semester by May 1.

Registration

Students entering the fall semester may preregister during the period from June 22 to July 31.

The dates of the regular registration period are shown in the Calendar. Students who enter after the regular registration period may have difficulty in entering desired courses.

Late registration fee: Each student filing his study program after the last day scheduled for registration pays a late registration fee of $5.00, in addition to other University Fees, except those students enrolled as listeners.

Fees

All University fees must be paid in full at the time of registration. Personal checks for the exact amount will be accepted. The University reserves the right to change fees and other charges at any time without advance notice.

Incidental Fee: All students enrolled in the University are required to pay an Incidental fee, Fall 1964, as follows:

<table>
<thead>
<tr>
<th>REGULAR SEMESTER (18 weeks)</th>
<th>SUMMER SESSION (8 weeks)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Hours Credit</td>
<td>Incidental Fee</td>
</tr>
<tr>
<td>10 or more</td>
<td>$115.00</td>
</tr>
</tbody>
</table>

For any other sessions not specified above and for partial enrollments the Incidental Fee shall be calculated at the rate of $11.50 per credit hour.

Nonresident tuition fee: Tuition is free in all divisions of the University, to students who are residents of the state of Missouri. The nonresident fee for undergraduate students who are not residents of Missouri is:

<table>
<thead>
<tr>
<th>REGULAR SEMESTER (18 weeks)</th>
<th>SUMMER SESSION (8 weeks)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Hours Credit</td>
<td>Nonresident Fee</td>
</tr>
<tr>
<td>10 or more</td>
<td>$175.00</td>
</tr>
</tbody>
</table>

Miscellaneous Fees: In addition all students are required to pay a small Student Activities Fee. Those who desire to park their cars on the campus must register their cars during the Registration period and purchase a car registration sticker.

Preregistration fee:

A pre-payment of $20.00 on the Incidental Fee is charged at the time of pre-enrollment. This payment is non-refundable and non-transferable but will be applied as part payment of Incidental Fee if the applicant enrolls in any division of the University in the Summer Session or the Fall or Winter semester in the academic year following payment.

Refund of Fees

A student who pre-registers or enrolls on the regular registration days and pays the regularly established fees and who reduces his enrollment before the day classwork begins, so that his fees are reduced, shall be entitled to a full refund of the difference in fees.

Students leaving school or dropping courses for which they have paid fees, prior to the close of the first half of the term after their registration, will receive, upon written request to the Cashier's Office, a refund of the fees paid in accordance with the following schedule:

<table>
<thead>
<tr>
<th>Time of withdrawal</th>
<th>Amount of Fee to be refunded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within the first one-eighth of term</td>
<td>80%</td>
</tr>
<tr>
<td>Within the second one-eighth of term</td>
<td>60%</td>
</tr>
<tr>
<td>Within the third one-eighth of term</td>
<td>40%</td>
</tr>
<tr>
<td>Within the fourth one-eighth of term</td>
<td>20%</td>
</tr>
<tr>
<td>After the first half of the term</td>
<td>no refund</td>
</tr>
</tbody>
</table>

Student Financial Aid

Financial aid is offered to students enrolled in the University of Missouri, St. Louis Campus, in the form of part-time employment, student loans, scholarships, and awards.

Student Loans: All the student loan funds, including those available under the provisions of the National Defense Education Act, are administered in the Office of Aids and Awards, University of Missouri, Columbia, under the direction of the Student Loan Committee appointed by the President of the University. Application forms and further information about loans may be obtained from the Office of Aids and Awards, 123 Jesse Hall, University of Missouri, Columbia, Missouri.

Scholarships: Normandy Kiwanis Club Scholarship. The Normandy Kiwanis Club awards one or more scholarships annually to residents of the Normandy School District who enroll as freshmen in the University of Missouri, St. Louis Campus. Recipients are awarded $250.00, one-half payable at the beginning of the Fall Semester and the other half at the beginning of the Winter Semester. Application forms may be obtained from: Dean, University of Missouri, St. Louis Campus, 8001 Natural Bridge Road, St. Louis, Missouri, 63121.

Carators Freshman Scholarship and Awards: Valedictorians of the high schools in the City of St. Louis, St. Louis County, Jefferson County, Franklin County, Lincoln County, and St. Charles County will be offered a Carators Scholarship equivalent to the incidental fee for two semesters. All others who rank in the
UNIVERSITY OF MISSOURI
ST. LOUIS CAMPUS
8001 Natural Bridge Road
St. Louis, Mo. 63121

Summer Session
1964
THE UNIVERSITY OF MISSOURI
ST. LOUIS CAMPUS

At present the University of Missouri, St. Louis Campus offers two years of college work in Accounting, Botany, Chemistry, Economics, Education, English, French, German, History, Mathematics, Mechanical Engineering, Philosophy, Political Science, Psychology, Sociology, Spanish, Statistics and Zoology. The third year of college work will be added in the fall of 1965 and the fourth year in the fall of 1966.

THE SUMMER SCHOOL

The courses offered in the Summer School carry credit toward degrees in any branch of the University to which the student has been admitted.

ADMISSION

Admission to the Summer School should be arranged through the Dean, University of Missouri, St. Louis Campus, 8001 Natural Bridge Road, St. Louis, Missouri 63121. Students not previously admitted must file an application and have official transcripts of their high school and college credits sent to them by their respective high school principals or college registrars. These should be sent well in advance of registration day, before May 1, if possible. Each applicant must also complete and file a Report of Medical History form before his registration is completed.

FEES

All University fees must be paid in full at the time of registration. Personal checks for the exact amount will be accepted. The University reserves the right to change fees and other charges at any time without advance notice.

Incidental Fee: All students enrolled in the University are required to pay an Incidental Fee as follows:

SUMMER SESSION
(8 weeks)

<table>
<thead>
<tr>
<th>Number of Credit Hours</th>
<th>Incidental Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 or more</td>
<td>$50.00</td>
</tr>
</tbody>
</table>

For partial enrollments (fewer than 5 semester hours) the Incidental Fee shall be $10.00 per credit hour.

Nonresident tuition fee: Tuition is free in all divisions of the University to students who are residents of the state of Missouri. The nonresident fee for undergraduates who are not residents of Missouri is:
SUMMER SESSION
(8 weeks)

Number of Credit Hours     Non-Resident Fee
5 or more                      $75.00

For partial enrollments the nonresident fee is $15.00 per credit hour.

Motor Vehicle Registration Fees: There will be a registration fee for each motor vehicle used by a student on the campus.

COURSE OFFERINGS
SUMMER SESSION

Accounting
36 Elementary Accounting I (3)
Prerequisite: Sophomore standing. Includes the rules of bookkeeping, the accounting cycle, generally accepted accounting principles, financial statement preparation and analysis, and problems of income computation and asset valuation.

Chemistry
11 General Chemistry (5)
Prerequisites: either (a) 1½ units of algebra and 1 unit of geometry, and a Q score of 50 on the Freshman placement test; or (b) completion on Math 10, college algebra, or (c) at least a C grade in Chemistry 1. (2 credit hours are awarded to students who have taken 1 or equivalent) Presents an introduction to inorganic, analytical, and physical chemistry. 3 hours of lecture and 3½ hours of laboratory per week.

Economics
50 General Economics (3)
Prerequisite: 15 credit hours. An introduction to the subject of economics with emphasis on fundamental principles and their application to questions of policy.

Education
102 Education—Educational Psychology (3)
Prerequisite: 45 hours college credit. General elementary course to acquaint students with scientific psychological principles underlying education.

125 Education—History of American Education (3)
Prerequisite: A course in American History. Comprehensive study of development of American education. Stresses American education ideas, American school system, and social forces affecting American Education.

English
1 Composition (3)
Detailed study and practice in construction and the kinds of composition.

2 Composition (3)
A continuation of course 1.

60 Exposition (3)
Prerequisite, six hours of Composition or the equivalent. Study and practice of expository writing including original essays.

Literature
30 English Life and Literature (3)
A general survey course in English Literature. Not open to freshmen. These courses or their equivalent are required for all upperclass English courses at the University of Missouri except General Literature, The Structure of American English, The English Novel, and the American Novel.

40 English Life and Literature (3)
A general survey course in English Literature. Not open to freshmen. These courses or their equivalent are required for all upperclass English courses at the University of Missouri except General Literature, The Structure of American English, The English Novel, and the American Novel.

175 American Literature (3)
Prerequisite: English 65GH or sophomore standing. General survey of American Literature from the Civil War to the present.

French
Students entering with no high school units in French should take 1; students entering with 1 high school unit in French should take 1, for which they will receive 3 hours credit; students entering with 2 high school units in French should take 2; students entering with 3 high school units in French may take 2 for 3 hours credit, or course 103.

1 Elementary French (5)
Beginning course in composition, conversation, and reading. Five recitation and two laboratory periods per week.

103 French Reading (3)
Prerequisite, course 2 or equivalent. Cultivation of reading skill combined with introduction to the humanistic values of the literature.
German

Students entering with no high school units in German should take 1; students entering with 1 high school unit in German should take 1, for which they will receive 3 hours credit; students entering with 2 high school units in German should take 2; students entering with 3 high school units in German may take 2 for 3 hours credit, or course 103.

1 Beginning German (5)
Emphasis on Pronunciation, grammar and the acquisition of basic vocabulary and simple conversation patterns. Additional practice in aural comprehension and pronunciation through use of the language laboratory. Elementary reading.

103 German Reading (3)
Prerequisite: 2 or equivalent. Development of reading skill and appreciation of German literature through the study and discussion of short prose and poetry selections and novellettes.

History

1 Western Civilization I (3)
Survey of the evolution of Western Civilization emphasizing the important elements in the Western political and cultural tradition. The relationship of ideas and institutions to historical background. From the earliest times to the end of the Reformation.

20 American History (3)
The development of America from the first English settlements to the Civil War with an emphasis on the evolution of American culture and institutions. This course fulfills the state requirement.

231 Modern Europe (3)
Prerequisite: Sophomore standing. A survey of Europe in Modern times with emphasis on the growth of 'isms' and the tradition from the idea of the nation-state to that of a European community.

Mathematics

3 Basic Algebra (2)
Fundamentals of algebra for students who have two years or less of mathematics in high school, excluding general mathematics. No credit in Arts and Science.

9 Trigonometry (2)
Prerequisite: one and one-half high school units in algebra. This course should be taken concurrently with Math 10 by any student who intends to take Math 80, unless the student has had a course in trigonometry in high school.

10 College Algebra (3)
Prerequisite: (a) two and one-half high school units of math, including one and one-half high school units of algebra, or (b) Math 3. Review of fundamental concepts and topics from elementary algebra. Emphasis on polynomial functions and graphical representation of functions. Equations, systems of equations, inequalities, the binomial theorem, mathematical induction.

80 Analytic Geometry and Calculus I (5)
Prerequisite: A grade of C in courses 9 and 10, or four high school units of mathematics, including two units of algebra. Introduction to analytic geometry, differential calculus and integral calculus. Courses 80, 175 and 201 are a sequence of courses which have integrated the material formerly contained in courses in plane and solid analytic geometry and differential and integral calculus.

175 Analytic Geometry and Calculus II (5)
Prerequisite: A grade of C or better in Math 80. Selected topics from plane analytic geometry and calculus.

201 Analytic Geometry and Calculus III (5)
Prerequisite: Math 175 with a grade of C or better. Solid Analytic geometry and selected topics in calculus.

Philosophy

1 Elementary Logic (3)
The formal principles of deduction and induction with special attention to criticism of argument, detection of fallacies, and certain philosophic problems arising out of logic.

5 Introduction to Philosophy (3)
The principal problems of philosophy and their typical solution with special reference to problems of knowledge, of the natural world, and of society.

Political Science

1. American Government (3)
Formation, development and structure of the American Federal system; the electorate; civil liberties; parties and pressure groups; the legis-
lative, executive and judicial branches; survey of Missouri Constitution and government. Fulfills the state requirement.

2 American Government (3)
Continuation of 1. Prerequisite: 1. Survey of functions and policies of American government, in fields of foreign relations, business, labor, agriculture, government finance.

Psychology
1 General Psychology (3)
A survey of the facts, principles, and methods in the study of human behavior.

Sociology
1 Introductory Sociology (3)
Study of human behavior as related to the human group. Society, culture, and personality analyzed, using sociological concepts and principles.

50 Social Disorganization (3)
Prerequisite: Sociology 1. Analysis of social problems, such as crime, delinquency, mental illness, and suicide. Focus on both personal and social disorganization. Field trips.

Statistics
31 Elementary Statistics (3)
Prerequisites: Sophomore standing and Math 10. Introduction to descriptive statistics including collection, organization, and presentation of data; averages; dispersion. Introduction to statistical inference, probability, index numbers, time series, correlation.

Zoology
1 Introductory Zoology (5)
Introduction to important principles and concepts of zoology. Emphasis on: cell biology; evolution; genetics; ecology; structure, function and development of the organism.