

University of Missouri

Its Schools and Colleges
1960-61

BULLETIN

THE UNIVERSITY OF MISSOURI BULLETIN

VOLUME 61, NUMBER 20

GENERAL SERIES 1960, NUMBER 13

Published by the University of Missouri at the Office of Publications, Columbia, Missouri. Entered as second-class matter, January 2, 1914 at postoffice at Columbia, Missouri under the Act of Congress of August 24, 1912. Issued five times monthly. 17,000.

April 22, 1960

The University —Its Schools and Colleges

(A SECTION OF THE GENERAL CATALOG)

1960-61

FOR THE DIVISIONS AT COLUMBIA:

COLLEGE OF ARTS AND SCIENCE

including SCHOOL OF SOCIAL WORK—

DIVISION OF AGRICULTURAL SCIENCES

including COLLEGE OF AGRICULTURE

SCHOOL OF FORESTRY AND SCHOOL OF

VETERINARY MEDICINE—SCHOOL OF

BUSINESS AND PUBLIC ADMINISTRATION

—COLLEGE OF EDUCATION—COLLEGE OF

ENGINEERING—GRADUATE SCHOOL—

SCHOOL OF JOURNALISM—SCHOOL OF

LAW—SCHOOL OF MEDICINE *including*

SCHOOL OF NURSING

AND FOR THE DIVISION AT ROLLA: THE

SCHOOL OF MINES AND METALLURGY

The University of Missouri

Columbia and Rolla

Foreword

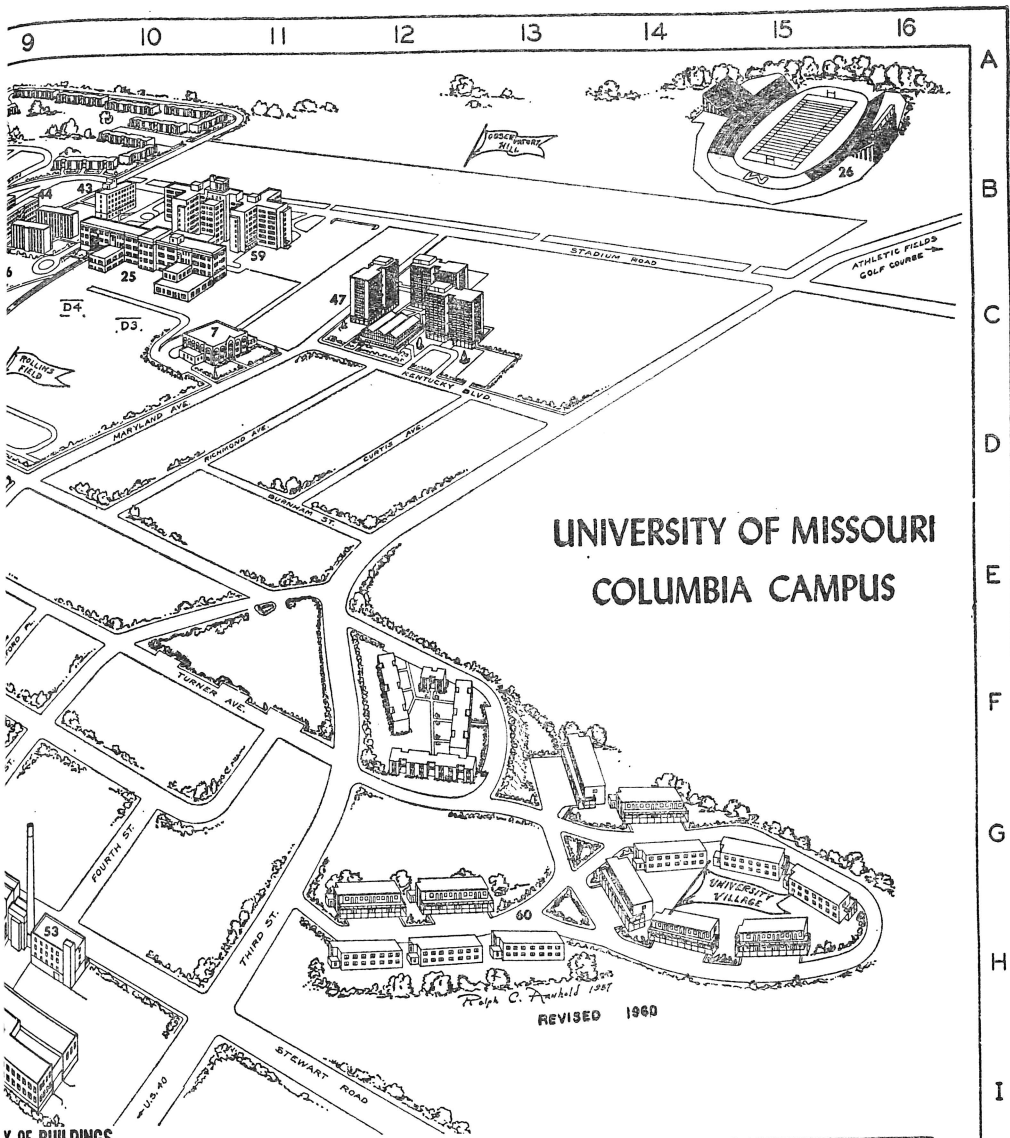
The University catalog is issued in three parts. The first part, *The University—Its Schools and Colleges*, contains general information on administration, facilities, regulations, requirements for admission, and on the various schools and colleges.

The second part, *Announcement of Courses*, contains descriptions of all courses of instruction for the schools and colleges for the divisions at Columbia and lists officers of administration and instruction. The third part, entitled *Aids and Awards*, contains information on scholarships, loan funds, employment, and other aids to students.

For these bulletins or for other general information address the Director of Admissions, 130 Jesse Hall, University of Missouri, Columbia, Mo.

Contents

Map	4, 5
Calendars	6, 7
The Boards	8
The University	9
Libraries	13
Admission	15
Fees and Expenses	21
Student Welfare	28
General Regulations and Requirements	33
Student Life and Activities	38
College of Arts and Science	42
School of Social Work	48
Division of Agricultural Sciences	50
College of Agriculture	51
School of Forestry	54
School of Veterinary Medicine	57
School of Business and Public Administration	61
Division of Continuing Education	64
College of Education	66
College of Engineering	74
Graduate School	81
School of Journalism	85
School of Law	91
School of Medicine	96
School of Nursing	101
School of Mines and Metallurgy	105
Missouri State Military School	108



UNIVERSITY OF MISSOURI COLUMBIA CAMPUS

X OF BUILDINGS

Agric. Engineering and Labs.	A-4	25 Medical Sciences	C-10	47 Women's Group	C-12
Agricultural Laboratory	C-6	26 Memorial Stadium	A-15	48 Rothwell Gymnasium	C-7
Archer Field House	C-7	27 Memorial Student Union	D-4	49 Schlundt (Chemistry)	C-3
Child B&PA	F-4	28 Missouri School of Religion	E-5	50 Schweitzer (Chemistry)	C-2
Child B&PA	E-4	29 Missouri State Teachers Assn.	H-6	51 Stephens (Wildlife)	C-1
Continuance (Veterinary)	B-3	30 Mumford (Agriculture)	D-3	52 Stewart (Physics)	C-3
Continuance (ROTC)	C-10	31 Neff (Journalism)	F-3	53 Storeroom (Purchasing)	H-9
Curriculum (Genetics)	C-3	32 Noyes Hospital (Stud. Health Serv.) ..	G-6	54 Student Health Center	G-6
Curriculum (Dairy)	B-4	33 Old Chemistry	F-4	55 Swallow (Geology)	E-5
Curriculum (Univ. Lab. School)	F-7	34 Parker Memorial (Testing and		56 Switzer (Speech and Sociology) ..	F-5
Curriculum (Bldg. and Labs.)	F-6	Counseling)		57 T-1	G-5
Curriculum (Univ. Lab. School)	F-6	35 Poultry (T-14)	C-7	58 Tate (Law)	D-6
Curriculum (Arts Bldg.)	D-4	36 President's House	E-5	59 Teaching Hospital	B-11
Curriculum (Arts Bldg.)	A-2	37 Read	C-5	60 University Village	H-13
Curriculum (Library)	D-5	Residence Halls		61 Veterinary Clinic	A-2
Curriculum (Home Economics)	C-4	38 Cramer (Men)	B-9	62 Walter Williams (Journalism)	F-3
Curriculum (Education)	E-7	39 Defoe (Men)	B-8	63 Waters (Agriculture)	C-2
Curriculum (Arts and Naval ROTC)	G-8	40 Gentry (Women)	D-5	64 Whittan (Horticulture)	D-3
Curriculum (Administration)	E-6	41 Graham (Men)	C-8	65 Women's Gymnasium	C-5
Curriculum (Music)	F-7	42 Johnston (Women)	C-6		
Curriculum (Biology)	C-1	43 Nurses (Women)	B-10		
Curriculum (Livestock Pavilion)	A-4	44 Stafford (Men)	B-9		
Curriculum (Philosophy and		45 North Group (Men)	I-6		
Psychology)		46 South Group (Men)	C-9		
Curriculum (Maintenance Bldg.)	I-9				

University Calendar 1960-61

(For the Divisions at Columbia)

First Semester

1960

- September 12—Monday, New Student Orientation begins 8:00 a.m.
Convocation for all New Students, 7:00 p.m.
September 13—Tuesday, Registration, 8-12 a.m., 1-5 p.m.
September 14—Wednesday, Registration continues, 8-12 a.m., 1-5 p.m.
September 15—Thursday, Classwork begins, 7:40 a.m.
October 15—Saturday, University Day
October 22—Saturday, Parents Day
November 23—Wednesday, Thanksgiving vacation begins 12:30 p.m.
November 28—Monday, Classwork resumes, 7:40 a.m.
December 17—Saturday, Christmas vacation begins, 12:30 p.m.

1961

- January 3—Tuesday, Classwork resumes, 7:40 a.m.
January 19—Thursday, Classwork first semester ends, 4:30 p.m.
January 21—Saturday, Examinations begin
January 28—Saturday, First Semester closes, 5 p.m.

Second Semester

- January 31—Tuesday, Registration and Orientation, 8-12 a.m., 1-5 p.m.
February 1—Wednesday, Registration continues, 8-12 a.m.
February 2—Thursday, Classwork begins, 7:40 a.m.
March 29—Wednesday, Spring recess begins, 12:30 p.m.
April 4—Tuesday, Classwork resumes, 7:40 a.m.
May 25—Thursday, Classwork second semester ends, 4:30 p.m.
May 27—Saturday, Final examinations begin
June 1—Thursday, Final grades for candidates for graduation due, 12 noon
June 3—Saturday, Second Semester closes, 5 p.m.
June 4—Sunday, Baccalaureate Exercises (See note below)
June 6—Tuesday, Annual Commencement

Summer Session

- June 12—Monday, Registration and Orientation
June 13—Tuesday, Classwork begins
July 4—Tuesday, Independence Day holiday
August 4—Friday, Summer Session closes, 5 p.m.

Summer Commencement

Note: The University offers its assistance and cooperation to the churches of Columbia which elect to hold baccalaureate exercises for graduates in their student congregations.

Calendar

School of Mines and Metallurgy 1960-1961

First Semester

1960

- September 6—Tuesday, Examination for Credit in College Algebra and Trigonometry, 8:30 a.m. (Optional)
September 6—Tuesday, Examination for credit in General Chemistry I, 2:00 p.m. (Optional)
September 7—Wednesday, Freshman Registration, New Student Orientation begins
September 9—Friday, New Student Orientation ends, 4:00 p.m.
September 12—Monday, Freshman Classes begin, 7:30 a.m.
September 12—Monday, Registration for upper classes
September 13—Tuesday, Classwork begins for upperclassmen, 7:30 a.m.
November 23—Wednesday, Thanksgiving Vacation begins, 12:20 p.m.
November 28—Monday, Thanksgiving Vacation ends, 12:30 p.m.
December 20—Tuesday, Christmas Vacation begins, 12:20 p.m.

1961

- January 3—Tuesday, Christmas Vacation ends, 12:30 p.m.
January 16—Monday, Final Examinations begin, 8:00 a.m.
January 21—Saturday, First Semester closes, 5:00 p.m.

Second Semester

- January 30—Monday, Registration
January 31—Tuesday, Classwork begins, 7:30 a.m.
March 16—Thursday, Spring Recess begins, 7:30 a.m.
March 20—Monday, Spring Recess ends, 7:30 a.m.
March 31—Friday, Easter Vacation begins, 7:30 a.m.
April 3—Monday, Easter Vacation ends, 12:30 p.m.
May 26—Friday, Final Examinations begin, 8:00 a.m.
May 28—Sunday, Baccalaureate Exercises, 10:00 a.m.
May 28—Sunday, Annual Commencement, 5:00 p.m.
May 31—Wednesday, Second Semester closes, 5:00 p.m.

Summer Session

- June 5—Monday, Registration
June 6—Tuesday, Classwork begins, 7:00 a.m.
July 4—Tuesday, Independence Day Holiday
July 29—Saturday, Summer Commencement, 10:00 a.m.
July 29—Saturday, Summer Session Closes, 12:00 noon

The Boards

The Board of Curators

Term expires January 1, 1961

Boyd Ewing Nevada
Oliver B. Ferguson Fredericktown
Randall R. Kitt Chillicothe

Term expires January 1, 1963

Lester E. Cox Springfield
J. A. Daggs Memphis
Robert Neill St. Louis

Term expires January 1, 1965

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

OFFICERS OF THE BOARD

James A. Finch, Jr., President Cape Girardeau
Lester E. Cox, Vice President Springfield
Mary Robnett, Secretary Columbia
R. B. Price, Treasurer Columbia
F. A. Germann, Treasurer Rolla

THE EXECUTIVE BOARD AT COLUMBIA

Mr. Neill, Chairman; Mr. Daggs, Mr. Ewing

THE EXECUTIVE COMMITTEE AT ROLLA

Mr. Kitt, Chairman; Mr. Ferguson, Mr. Patterson

GENERAL COUNSEL FOR THE UNIVERSITY

Paul M. Peterson

The University

The University of Missouri was created in 1839 by the General Assembly under the provisions of a bill introduced by Henry S. Geyer, representative from St. Louis. The bill was approved on February 11 and the University became the first state university established in the Louisiana Purchase territory, acquired by the United States during the administration of Thomas Jefferson. The form of organization of the new University was influenced to a large degree by the philosophy of Jefferson, a vigorous advocate of public higher education.

Plans were soon under way for the erection of a suitable building, adequate, it was believed, for years to come. The cornerstone of the building was laid on July 4, 1840. Meanwhile, classes were held in nearby Columbia College. The College building was the home of the University until July 4, 1843, when the new building, known as the University Edifice, was ready for use. The first commencement was held November 28, 1843, with two graduates.

Except for a few months in 1862 when it was occupied by federal troops, the Edifice continued in use until January 9, 1892, when it was destroyed by fire. The Columns of this building still stand. On the second school day following the fire all classes were resumed, meeting in churches, store buildings, the town's opera house and courthouse, in other University buildings, and in the Columbia College building.

Originally the University, in common with most other American universities, embraced a typical classical curriculum of four years of study in the liberal arts. Subsequently, subjects outside the traditional fields were added and in 1868 the Normal College, predecessor to the College of Education, was formally established. Women were admitted to this division in 1869. Within the next decade other divisions were organized—the College of Agriculture and Mechanics Arts in 1870, the School of Mines and Metallurgy at Rolla in 1871, and in 1872 the School of Law.

Instruction in medicine was offered as early as 1845 through McDowell Medical College, founded in St. Louis in 1840. This college was a department of the University for a ten-year period, until discontinued in 1855. The School of Medicine was reestablished in Columbia in 1872. In 1952 it was enlarged to offer a complete course and an appropriation was made by the legislature for a teaching hospital and other facilities. Instruction in nursing dates back to 1901, but the School of Nursing formed in 1920 was discontinued in 1947 and reestablished in 1954 under the School of Medicine.

The School of Engineering, later renamed the College of Engineering, was organized in 1877, although work in civil engineering was offered as early as 1849. In 1908 the School of Journalism was founded. The Graduate School was organized as a separate division in 1910 although post-graduate work had been offered for a number of years. The School of Business and Public Administration was established in 1914.

The Division of Agricultural Sciences now includes, in addition to the College of Agriculture, the School of Veterinary Medicine, organized in 1949, and the School of Forestry, organized in 1957.

All divisions of the University are located at Columbia with the exception of the School of Mines and Metallurgy which is at Rolla. Columbia, a city of about 48,000 estimated population is located near the center of the state and Rolla is about 100 miles south of Columbia.

The purpose of the University is three-fold: teaching, research, and service.

The university has come to be a living force that extends beyond the campus and its teaching and research program. State universities which are also land-grant institutions have statewide extension programs and many auxiliary services. At the University of Missouri these programs include the Agricultural Extension Service, the Division of Continuing Education, the Missouri State Military School, and the Mining Experiment Station at Rolla. Other services include the Crippled Children's Service, the University Medical Center, and KOMU-TV, a commercial television station. All educational services and programs of any kind issue from and are a part of the offering of some academic department of the University so that, in a very real sense, the academic divisions and departments *are* the University.

In the Biennial Report of 1932 the Curators of the University stated the purposes of the University in these words:

"A true state university strives to be the intellectual, the cultural, and the professional center of the state. It is not merely a school; it is a community of scholars and learners engaged in the forward-looking enterprises of modern civilization." For students who come to the campus to participate in the life of this "community of scholars and learners," the University sets as its primary aim the imparting of knowledge and attempts to stimulate in the student the desire to learn and to expand the frontiers of knowledge. All other phases of the campus program remain secondary to the primary aim of instilling in the student a desire, love, and respect for truth.

The University is now in a period of unparalleled expansion and sustained effort is being continued to keep the scope and quality of teaching, research, and services up to desired levels.

Presidents

Elmer Ellis, Ph.D., LL.D., member of the faculty since 1930, was named acting president in 1954 and has been President of the University since 1955. The first president was John Hiram Lathrop, 1841-1849 and 1865-1866 (Chairman of the Faculty, 1862-1865). Following Lathrop were James Shannon, 1850-1856; William Wilson Hudson, 1856-1859 (acting president, 1849-1850); George Henry Matthews (Chairman of the Faculty) 1859-1860; Benjamin Blake Minor, 1860-1862; Daniel Read, 1866-1876; Samuel Spahr Laws, 1876-1889; Michael Montgomery Fisher (Chairman of the Faculty) 1889-1891; James Shannon Blackwell (Chairman of the Faculty) February-June, 1891; Richard Henry Jesse, 1891-1908; Albert Ross Hill, 1908-1921; John Carleton Jones, 1921-1923; Isidor Loeb (acting president) April-July, 1923; Stratton Duluth Brooks, 1923-1930; Walter Williams, 1930-1935; Frederick Arnold Middlebush, 1935-1954.

Memorials

The Columns. The six Ionic columns are the most famous and beloved of all memorials at the University. Located on Francis Quadrangle, they are all that remain of the first University Edifice after the disastrous fire of 1892.

The Jefferson Monument. This scarred and weather-beaten monument once stood at the grave of Thomas Jefferson at Monticello, Virginia. It was constructed from Jefferson's own design and bears the epitaph which he wrote. In 1883 when the Congress appropriated funds for another monument, Jefferson's living descendants donated this marker to the University of Missouri as the most appropriate location for it. It now stands west of the north entrance to Jesse Hall.

The Gateway contains the cornerstone of the original University Edifice. The cornerstone was placed in its present position when the Gateway was constructed, with funds appropriated by the Congress in 1915 as compensation for damages resulting from the occupation of the Edifice by federal troops in 1862. One pillar of the Gateway bears the bas-relief portrait of Major James S. Rollins who, in 1872, was given the title Pater Universitatis Missouriensis by the Curators, and the other the portrait of John Hiram Lathrop, the University's first president. The Gateway leads from the end of south Eighth Street to the campus.

Memorial Tower and Student Union. The Tower was constructed with funds contributed by alumni, former students, and friends in memory of those University students who lost their lives in World War I. The north wing of the Student Union building, connected with the Tower, was com-

pleted and first used in September 1952. The Union is a memorial to students of the University who died in World War II.

Art

Missouri—Heart of the Nation, an art collection consisting of ninety-nine paintings of Missouri scenes depicted by fourteen outstanding contemporary artists, was presented to the University in 1950 by the Scruggs-Vandervoort-Barney Corporation of St. Louis. The collection is on display on the first and second floors of Jesse Hall.

The Missouri State Capitol Collection. The University Library has on permanent display the preliminary sketches and paintings of original murals in the Missouri State Capitol. These picture scenes from Missouri history are valuable because of their intrinsic merit and as examples of evolving artistic conceptions.

The State Historical Society collections are open to the public and are located in the Library building. These collections include many valuable paintings, among which is the original "Order Number 11" and others by George C. Bingham; 1,476 original drawings of cartoons by Daniel R. Fitzpatrick covering the period 1917-1952; "The Year of Peril" and others by Thomas Hart Benton; as well as the Fred Geary collection of woodcuts.

Libraries

The University libraries, consisting of the General Library and several branch libraries, provide facilities for course preparation and scholarly creative work. They contain a total of 900,000 volumes and more than 6,000 current periodicals.

The General Library has a seating capacity of 1,125 and contains Reference, Reserve Book, Periodical, Education, Social Science, Language, and Manuscripts reading rooms in addition to 161 carrels for graduate and faculty study. The University collections have been reinforced in recent years by gifts including the 3,000-volume mathematics library of the late Prof. Luther M. Defoe, and the anatomy library of 1,200 volumes of Dr. C. M. Jackson, a former dean of the University School of Medicine. Dr. Franklin P. Johnson presented a collection of more than 1,700 volumes on philosophy and classical literature from the library of his father, the late Thomas Moore Johnson of Osceola, Mo. The Irion collection, a professional library in education, is being increased annually. Many complete files of domestic and foreign papers on microfilm are available for study and a map collection of historical significance is currently being established.

The Western Historical Manuscripts Collection was established in the University Library in 1943 with the assistance of the Humanities Division of the Rockefeller Foundation. It contains a distinguished body of manuscript material in about 750 separate collections totalling 800,000 pieces. Most of the papers relate to the area of the Missouri River and Great Plains and include interesting correspondence, account books, and diaries representing early and recent business, professional, political and social life. Photographic equipment is available for reproducing rare papers which cannot be acquired in the original. The Library and the Department of History are joint sponsors of the manuscripts project.

The library of the State Historical Society of Missouri, which shares the General Library Building, has an extensive collection of Missouriana and the early West. This collection comprises 137,680 volumes including 24,091 bound volumes of Missouri newspapers and 3,868 bound volumes of Missouri magazines and college periodicals; 4,175 items in the Bay Collection of the Society which is a unit in itself; 175,181 duplicate volumes of Missouri official publications; 8,031,870 pages of Missouri newspapers on positive microfilm; 223,574 pages of original manuscripts; 838,035 pages of manuscripts on microfilm; 120,771 items of Missouri state archives; 18,746 en-

gravings, lithographs, paintings, photographs, pictures, portraits, and original drawings of cartoons; and 85,659 maps, scrapbooks, and World War I and II letters, records, and clippings. The library is available to faculty and students.

The branch libraries, situated on the campus at strategic points to serve the faculty and students of the various divisions, contain the most useful and most recent material in their respective fields. The Agricultural Library contains publications of the United States Department of Agriculture, state agricultural experiment stations, and of foreign countries, in addition to 40,000 volumes and periodicals emphasizing agricultural economics, animal husbandry, entomology, forestry, horticulture, dairying, soils, and field crops. The Biology Library, containing 10,000 volumes, is particularly strong in genetics, and wild life conservation. The Engineering Library, rich in publications of societies, governments, and trade organizations, includes a fine mathematics library in its 25,000 volumes. The Geology Library, containing 11,500 volumes, is significant for its complete holdings of publications of the United States Geological Survey and extensive holdings of state geological, mineral, and natural resources departments. The Journalism Library contains 14,000 volumes with information relating to the history of journalism, advertising, management, law of the press, circulation, news photography, typography and the history of printing, and radio and news reporting. The Law Library of 75,000 volumes includes, in addition to the reports of the United States Courts and of the courts of last resort of the several states, both the original and reprints of the English reports, and the reports of the British Commonwealth. Of particular interest to students engaged in research is the Lawson collection of criminal law. The Statutes of the Realm furnish invaluable research material in the fields of English history, government, social legislation, and related subjects. Other collections include the latest statutory compilations of all the states, law reviews and professional journals, the necessary digests, standard treatises and encyclopedias. The Medical Library has 40,000 volumes, and receives 1,000 journals currently. The 4,000-volume Veterinary Library is a small but select collection selected for veterinary practice and research.

Admission

Inquiries regarding entrance to all divisions of the University at Columbia should be addressed to the Director of Admissions, 130 Jesse Hall, Columbia, Mo. Inquiries regarding admission to the School of Mines and Metallurgy should be addressed to the Office of the Registrar, School of Mines and Metallurgy, Rolla, Mo.

Directions to New Students

The new student is advised to submit credentials as early as possible before the opening of the term in which he wishes to enroll in order to be notified of possible deficiencies. Admission can be determined only after all credentials are on file. All new students are required to submit application blanks which may be obtained from the Director of Admissions, 130 Jesse Hall. In addition, the following credentials are required.

Entering Freshmen. The entering freshman must submit a high school transcript certified by the proper official of the school in which the credits were earned, and reports of medical history and physical examination forms completed by the applicant's personal physician.

Transfer Students. An undergraduate student who has attended college elsewhere must submit an official high school transcript, official college transcripts from *each college* attended including statements of honorable dismissal, and a health record from the last institution attended. In addition, reports of medical history and physical examination forms must be submitted by the applicant's personal physician.

Graduate Students. A graduate student must have a transcript sent from the institution conferring his bachelor's degree and from each graduate school attended. A health record from the last institution attended must also be furnished. In addition, reports of medical history and physical examination forms must be submitted by the applicant's personal physician.

Veterans. In addition to official school records, a veteran who wishes credit for service experience, or excuse from physical education and military science, must submit a photostatic copy of his separation papers (Form DD-214) and official USAFI reports, Madison 3, Wisconsin, if applicable.

Preregistration

For the convenience of the new student who is being admitted to the University for the fall semester, a preregistration period is set up during the summer. Before taking advantage of this preregistration period the student should check with the Office of Admissions to determine whether he has sufficient credentials on file. A student who has been accepted and has proper credentials on file is furnished a permit to enroll and instructions for registration.

Admission to Freshman Class

The Colleges of Agriculture, Arts and Science, Education, Engineering, and the Schools of Forestry and Nursing at Columbia, and the School of Mines and Metallurgy at Rolla are regularly open to freshmen. Students may be admitted to the freshman class by:

Plan A—Graduates of fully accredited high schools may be admitted by certificate or transcript of record without examination. Applicants must have passed their high school courses with satisfactory marks. Admission by certificate is restricted to graduates of schools accredited by the University of Missouri, by other state universities of similar rank, by the North Central Association, or by other recognized accrediting agencies. 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 Kansas City and St. Louis metropolitan areas, children of University of Missouri alumni, or applicants sponsored by alumni and approved by the Committee on Entrance, and applicants holding a scholarship granted or approved by the Committee on Aids and Awards, are admitted on the same basis as Missouri residents.

The requirement for admission by certificate to the Colleges of Agriculture, Arts and Science, Education, Engineering, and the Schools of Forestry and Nursing, at Columbia, and the School of Mines and Metallurgy at Rolla, is the satisfactory completion of a four-year-high school course, including 15 acceptable units. All courses, with the exception of physical education and military science, offered by an accredited high school for its diploma may be accepted toward entrance. However, no more than 2 units in diversified occupations will be accepted. Specific units required by each of the colleges and schools are included in the section on each division. Missouri students who rank in the lowest third of their graduating classes may be required to take tests for consideration by the Committee on Entrance.

Plan B—A student who is unable to qualify for admission by certificate, as authorized under Plan A and who is a graduate of a four-year high school, or who is at least 18 years of age may qualify for admission to the freshman class by examination. The examination will presume training and experience compensating for the lack of formal training to be had in an accredited high school. Adults, military personnel and veterans may qualify for admission by satisfactorily passing the high school level General Educational Development tests prepared for the United States Armed Forces Institute.

Placement Tests

Freshman placement tests are required of all students enrolling in the University with fewer than 24 hours of college credit. The results of these tests are of benefit to both the student and his adviser in planning the student's program and in considering his educational and professional objective. Freshman placement tests are administered during the preregistration period and during new student orientation.

Careful correlation of data reveals that the student who ranks in the lowest fourth of his high school graduating class or who scores below the 20 percentile on the placement tests given to entering freshman will find college work quite difficult. Rarely does a student with low scholastic standing in high school complete a four-year college program. The student who has had little success or aptitude as a scholar is advised not to attempt college. If he should choose to come to the University, however, he should be aware that his chances for completing a four-year program for a degree are small. Therefore, he should plan his course of study toward securing the maximum advantage from a program of fewer than four years. The student should contact his high school principal or guidance counselor for advice concerning his probable success in college.

Advanced Standing for Entering Freshmen

The University of Missouri 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 make application to the Director of Admissions, 130 Jesse Hall.

Admission to Undergraduate Schools

The Schools of Business and Public Administration, Journalism, Law, Medicine, and Veterinary Medicine require for admission two years or more of college work including certain specific subjects. College subjects required for admission are designated in terms of semester hours. An hour is defined as a college subject pursued one period a week for a semester of at least sixteen weeks or for a minimum of sixteen periods for one term.

No deficiency in the total number of required hours of credit is permitted for admission to the Schools of Law, Medicine, Veterinary Medicine, or Journalism. Students lacking a small part of the requirements for admission to the School of Business and Public Administration may be admitted on condition. All entrance conditions must be removed within two semesters. For detailed admission requirements of each of the undergraduate schools, refer to the appropriate section.

Transfer of Credit

A student who has been regularly admitted to another college or university of recognized standing may be admitted to this University upon presentation of a certificate of honorable dismissal and official transcripts of records of high school and college work, provided his scholastic record has been satisfactory. However, all credentials submitted for admission become the property of the University of Missouri and are permanently filed. All credentials should be filed with the Director of Admissions at least six weeks prior to registration.

Credit hours in the form of advanced standing may be allowed for work satisfactorily completed in another college or university of recognized standing insofar as such work satisfies the requirements of the division of the University in which the student registers; however, no grades are recorded for courses accepted on transfer. 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.

Graduates of accredited junior colleges will be admitted without examination to junior standing in the colleges of the University, provided, upon examination of official transcripts, they have satisfied the entrance requirements and have paralleled the work of the first two years of the particular college.

Junior college graduates may also be admitted to the Schools of Journalism and Business and Public Administration, provided they have completed entrance requirements in accordance with regulations of these divisions.

The University may not admit any student who is under suspension of dismissal, or whose previous record shows work of an inferior or unsatisfactory quality.

Credit for Military Service

Upon evaluation of official military records, veteran students may be excused from the ROTC and physical education requirement. 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.

Special Students, Unclassified Students, and Hearers

A person who is unable to satisfy the requirements for admission as a regular student will not be admitted to the Schools of Journalism, Law, Medicine, or Veterinary Medicine.

Special Students. An applicant over 21 years who does not qualify for admission as a regular student, but who by reason of special preparation or attainment may be judged qualified to pursue certain courses, will be admitted as a special student although not as a candidate for a degree.

Unclassified Students. Individuals qualified for admission but who do not desire to work toward a degree may be admitted as unclassified students.

Hearers. With the consent of the dean and of the teacher concerned, a student may be admitted to any course as a hearer. A hearer is registered and required to attend at least one-half of the sessions, but is not required to participate in any of the work of the course. He receives no credit toward a degree. A student enrolled as a hearer may be dropped from the course when, in the judgment of his teacher and his dean, his attendance record in the course justifies such action. A student who enrolls in a course as a hearer may not repeat that course for credit.

Students from Other Countries

Abroad. Prospective students living outside the United States and its possessions are advised to write the Foreign Student Adviser, Read Hall, Columbia, Missouri, at least a year prior to the date of desired admission. Information and blanks concerning admission, scholarships, housing, and approximate expenses will be sent to the students. Application papers and official records of previous school work should be furnished the Director of

Admissions, 130 Jesse Hall, Columbia, Missouri. Upon the approval of these papers, the student will be notified by an official letter. No prospective student should make plans to leave his country without first obtaining this permission to enter the University.

In the United States. Foreign students now studying in the United States may be admitted to the University only after the completion of at least 12 semesters hours of C or better quality work in the school whose letter of admission was the basis for issuance of the student's visa. To complete his credential file, he must furnish original and official transcripts from each school attended, both in this country and abroad. No student should consider himself admitted to the University until an official letter has been received stating that he is eligible for admission.

Admission to Graduate School

Admission to the Graduate School is arranged through the Admissions Office, 130 Jesse Hall. Graduation with a satisfactory record is required from a college or university accredited by the Missouri College Union, the North Central Association of Colleges and Secondary Schools, or other similar regional accrediting associations. However, admission to the Graduate School does not in itself entitle the student to candidacy for an advanced degree. In this connection, the prospective graduate student is urged to write or consult the chairman of the department in which he expects to do graduate work and ask for information concerning prerequisites, adequacy of facilities for research and his willingness to undertake the candidate's advisement.

Registration

Former students (not currently enrolled) should file requests for permits to enroll with the Director of Admissions at least thirty days in advance of registration in order to receive their permits before the registration period.

A student who enters after the regular registration period may, because of closed courses, find difficulty in securing the subjects he desires; moreover, he is not permitted to carry the full amount of work but must enroll for a proportionately reduced amount of work depending on the date of entrance. Ordinarily, no student will receive credit for work in any division of the University after the expiration of one-fourth of the scheduled time.

Fees and Expenses

All statements as to fees are by way of announcement only for the school year covered by this bulletin and are not to be regarded as offers to contract on the basis of those statements, inasmuch as the University expressly reserves the right to change any and all fees and other charges at any time, without any notice being given in advance of such a change.

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.

For any sessions other than those specified or for any fee which cannot be calculated on a per credit hour basis the session fee or per credit hour fee shall be prorated. When less than one credit hour is offered during an intersession the per credit hour fee shall be reduced to the appropriate fraction.

Time of Payment of Fees: All University fees must be paid at the time of registration as a condition of admission to classes. Students who pre-register must pay fees by the announced deadline or the advance 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.

Personal Checks: Personal checks in payment of fees or other obligations to the University will be accepted only when the amount of the check does not exceed the amount due from the student. A student who presents a check to the University in payment of students fees, which for any reason is not honored by the bank upon which it is drawn, will be automatically suspended from the University and will be reinstated only upon payment of the amount of the check and a reinstatement fee of \$5.00.

Tuition

Tuition is free in all divisions of the University to any student who, at the time of registration for a particular semester or session, is a resident of Missouri and who has been such for not less than one year im-

mediately preceding such registration. In addition, tuition is free or at a reduced amount in certain other cases of resident and non-resident students as provided in the detailed *Regulations on Tuition*. There is an additional requirement as to aliens who are Missouri residents, as provided in the detailed *Regulations on Tuition*.

Tuition is free to a nonresident student who has completed the requirements for a bachelor's degree at any college or university approved by this University and who is registered in the Graduate School and in no other division. Most other students who are not residents of Missouri are charged tuition, but in some cases nonresidents are exempt from tuition or tuition is at a reduced amount, as provided in the detailed *Regulations on Tuition*.

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

The Cashier, 123 Jesse Hall, or the Director of Admissions, 130 Jesse Hall, will furnish, on request, a copy of the *Regulations on Tuition* which covers in detail the various cases.

The amount of the tuition for those subject to it shall be:

For one semester of approximately 18 weeks (10 or more hours)	\$125.00
For one term of 12 weeks (7 or more hours)	87.50
For one term of 8 weeks (5 or more hours)	62.50

For any other sessions not specified above and for partial enrollments the nonresident tuition shall be calculated at the rate of \$12.50 per credit hour or fraction thereof.

Incidental Fee

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

For one semester of approximately 18 weeks (10 or more hours)	\$100.00
For one term of 12 weeks (7 or more hours)	70.00
For one term of 8 weeks (5 or more hours)	50.00

For any other sessions not specified above and for partial enrollments the Incidental Fee shall be calculated at the rate of \$10.00 per credit hour or fraction thereof.

Candidates for an advanced degree who have completed in a previous semester or term all requirements but the final examination and the submission to the graduate faculty of a thesis (if required) and who are not regularly enrolled in the Graduate School, must enroll in the Graduate

School before the examination may be given or the thesis read. Such students must enroll for examination for no hours credit and pay a fee of \$7.00. Students who enroll under this rule are not entitled to free hospital service.

Student Union and Activities Fee

Each student registered for resident work in the University is required to pay a Student Union and Activities Fee as follows:

- For one semester of approximately 18 weeks (10 or more hours)\$7.50
- For one term of 8 weeks (5 or more hours) 3.75

For any other sessions not specified above and for partial enrollments the Student Union and Activities Fee shall be calculated at the rate of 75c per credit hour or fraction thereof.

No additional student Union and Activities Fee shall be charged if the student is enrolled simultaneously in a session or semester and in a special intersession.

No Student Union and Activities Fee shall be charged during the period beginning with the close of regular summer session and ending with the beginning of the fall registration.

No Student Union and Activities Fee shall be charged if the student is enrolled for courses which are offered off campus or if the student is enrolled in evening courses only.

Supplementary Fee for School of Medicine

Students registered in the School of Medicine shall pay a supplementary Medical School fee of \$125.00 per semester.

Supplementary Fee for School of Veterinary Medicine

Students who are enrolled in the School of Veterinary Medicine and who are registered for 10 or more credit hours of the professional curriculum pay a fee of \$32.50 for one semester of 18 weeks.

Students who are enrolled in the School of Veterinary Medicine and who are registered for other than 18 weeks, or who are registered for less than 10 credit hours during a regular semester of the professional curriculum, pay a fee of \$3.25 per credit hour.

Laboratory Breakages

Breakage or loss of laboratory equipment due to personal negligence on the part of the student shall be assessed against the student when the actual value of the supplies exceeds \$1.00. The amount of this charge shall be determined by the department chairman.

Military Deposit

Military equipment including a uniform, is furnished to each student taking a course in ROTC. A deposit of \$10.00 is required for students enrolled in the basic courses. The deposit will be returned to the student upon the return of the uniform and equipment in satisfactory condition. Students enrolled in the basic Field Artillery courses who fail to complete the first year of enrollment in the Field Artillery basic course will have withheld from their deposit an amount equal to 50% of the Army Quartermaster Corps price of shoes (approximately \$2.95) which have been issued to the students. Students enrolled in advanced courses are required to sign an agreement to reimburse the University for any loss or damage. Students enrolled in basic courses are required to sign an agreement to reimburse the University for any loss or damage in excess of their deposit.

Music Fees

In addition to the Incidental Fee there is a charge of \$30.00 per semester of eighteen weeks for each subject in applied music to cover private instruction of two half hours per week; one half hour, when approved, \$18.00.

Late Registration Fee

Every student who files his study program after the close of the last day of registration must pay a fee of \$5.00 for late registration in addition to fees already provided for. This rule applies to all except hearers, and students enrolled for summer session, intersession, and off campus courses.

Fee for Change in Course

A fee of \$1.00 must be paid for each petition for change in course which is filed in the Admissions Office after the last day of the regular registration period.

Reinstatement fee. If a student's enrollment is terminated for any reason and he later requests readmission within the same semester or term, he shall be required to pay a \$5.00 reinstatement fee in addition to regular fees. A student presenting a check to the University in payment of student fees, which is returned unpaid for any reason, shall be automatically suspended from University and shall be required to pay a \$5.00 reinstatement fee in addition to the regular fees.

Fees for Special Field Trips

Field trip fee for Geology (8 weeks)	\$67.50
Field trip fee for Forestry (12 weeks)	30.00

In addition to the above, students enrolled for such field trips will pay the regular Incidental fee (See Incidental Fee).

For various summer camps and field trips other than trips during a regular term, an incidental fee of \$10.00 per credit hour or fraction thereof shall be charged. Students who have not been bona fide residents of the State of Missouri for one year, as outlined in the Regulations on Tuition and Residence, shall be required to pay the additional non-resident tuition.

In certain cases the cost of transportation may be charged if furnished by the University.

Motor Vehicle Registration Fee

A student eligible under University regulations to own, maintain, operate, possess or store any motor vehicle in or about Columbia must display a certificate of registration upon the vehicle. The fee for this registration is paid at the time the registration sticker is issued. Please consult a current copy of the Traffic Regulations for the amount of this fee. (*See Automobile and Motor Vehicle Regulations.*)

Transcript Fee

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

Transcript Evaluation Fee

A transcript evaluation fee of \$10.00 is charged each non-resident student applying for admission to the University of Missouri. This fee is not refundable but is deductible from fees if the student registers in the University within one year from date of payment of the transcript evaluation fee. This fee is not charged students from other lands applying directly from their homes countries.

Fee for Diploma and Certificates

A diploma fee of \$5.00 must be paid for each degree conferred by the University, and a fee of \$2.00 for each certificate except for the certificate for the completion of the two-year course in agriculture for which the fee is \$1.00. Those granted Ph.D. or Ed.D. degrees are furnished hoods, the fee for which is \$20.00.

Fees for Thesis or Dissertation

The following fees are charged in connection with the submission of a thesis or dissertation:

<i>Master's degree</i>	<i>Doctor's degree</i>
\$2.00 thesis binding fee	\$30.00 doctor's dissertation,
\$3.00 microfilming fee	microfilming and binding fee

Refund of 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:

<i>Time of withdrawal</i>	<i>Amount of fee to be refunded</i>
Within the first one-eighth of term	80%
Within the second eighth of term	60%
Within the third eighth of term	40%
Within the fourth eighth of term	20%
After the first half of the term	no refund

Exceptions to this rule are: Library fines, reinstatement fees, transcript fees, petition fees, late registration fees, and other fees in those cases where excess laboratory materials or hospital services have been used by the student.

A student who preregisters or enrolls on the regular registration and pays the regularly established fees, who cancels his registration before the day classwork begins at the opening of the semester or term, shall be entitled to a full refund of fees paid, less a charge of \$5.00 to offset the costs of handling the registration.

A student who pre-registers or enrolls on the regular registration days and pays the regularly established fees, 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.

Expenses

Required expenses at the University of Missouri are kept to a minimum so that the advantages of higher education can be within the financial reach of all. Students are advised to live conservatively and avoid needless expenditures. The following table gives an estimate of the necessary school expenses.

Estimated Basic Expenses for one Semester of Eighteen Weeks

Fees	\$107.50
Books and Supplies	52.50
Room	110.00
Board	<u>210.00</u>
Total	\$480.00

Note: Out of state students are required to pay an additional fee of \$125.00 each semester. The item for books and supplies may vary depending upon the school in which the student is enrolled.

The expenses listed above are only the basic costs. In addition students will have to allow for clothes and for their own personal expenses. These will vary according to individual tastes and habits, but in no case is there need for excessive spending.

Before coming to Columbia the prospective student should attempt to provide himself with sufficient funds to cover at least a major portion of the expenses for one semester. Even one who is to receive Veterans' Educational Benefits should have at least \$350 to carry his expenses until his first veterans' check arrives.

Student Welfare

Living Accommodations

University Housing

Single men and women. The University residence halls are available for the accommodation of both men and women students. In addition to providing room and board, the residence hall program offers opportunities for social, recreational, and cultural activities which provide students with a well-rounded life on campus.

Head residents and student assistants supervise the social, recreational, and cultural programs in the halls. Rooms are clean, comfortable and spacious. Food services are supervised by experienced dietitians.

Women students must spend their freshman year in the University residence halls unless they have earned 24 hours of college credit or unless they have been excused by the Student Housing Committee. This requirement is made in order to assist freshman women in adjusting to campus life. Accommodations are available for upperclass women also.

Students enter into contracts with the University for accommodations in University residence halls on a room and board basis for the entire academic year. The current rate (1960-61) for one-half of a double room is \$670 per academic year, payable by one of three plans: (1) payment for the entire year; (2) one payment in each semester; (3) four payments in each semester. Application blanks and additional information may be obtained from the University Housing Office, 16 Jesse Hall.

Married students. The University has 360 unfurnished apartments for married students. One-hundred-twelve one-bedroom apartments and 56 two-bedroom apartments, renting for \$52.50 and \$57.50 respectively, are located in an area known as University Village. Fifty-two one-bedroom apartments and 140 two-bedroom apartments, renting for \$57.50 and \$62.50 respectively, are located in two areas named University Terrace and University Heights. Application blanks may be obtained from the Housing Office.

Off-Campus Housing

All students not accommodated in University-owned housing are required to live in rooms approved by the Student Housing Committee. Rooms must be engaged for an entire semester and written agreements are required. Information about approved rooming houses for both men and women may be secured from the Housing Office. Unmarried students,

or any married student living as a single student, may not live in an apartment or trailer or rent a house without special permission from the Housing Office.

Sororities and fraternities. Sororities and fraternities offer housing to both members and pledges of their organizations, with the exception of freshman women who are to be in University residence halls for one year. The average monthly charge for room, board, etc., varies from \$80 to \$100 per month on the nine-month basis in sororities, and \$67 to \$93 per month in fraternities. These estimates do not include pledge fees, initiation fees, and building fees in case a new house is planned or if there is a fee to retire the indebtedness on the existing house. A number of fraternities and sororities have their houses paid for and do not have a building fee. Inquiries concerning sororities or fraternities should be addressed to Director, Student Affairs for Women, or to Director, Student Affairs for Men, 200 Read Hall.

Cooperative houses for women. The Campbell-Harrison House, maintained by the Home Economics Department, houses approximately 30 women students enrolled in the College of Agriculture. Application may be made to the Campbell-Harrison House President, c/o Department of Home Economics, Gwynn Hall, Columbia.

Templecrone is a cooperative house for women which provides board and room. The approximate cost per month is \$47. Inquires should be addressed to Templecrone, 701 Hitt Street, Columbia.

Rochdale is a cooperative house for women and provides board and room at an approximate cost of \$50 per month. Inquiries should be addressed to Rochdale, 703 Maryland, Columbia.

Cooperative houses for men. The Crest Co-op House provides room and board for 24 men at a cost of approximately \$50 per month. Application may be made to the House President, Crest Co-op, 703 Missouri Avenue, Columbia.

Three Squares Cooperative provides room and board for 35 men at a cost of approximately \$55 per month. Application may be made to the House President, Three Squares Cooperative, 111 E. Stewart Road, Columbia.

Student Health Service

Student Hospital and Clinic. Students in residence at the University of Missouri who are registered for more than one-half of the normal credit during any term and who have paid the full Incidental Fee for that term, are entitled without cost to full medical care by the Student Health Service during the term for which the fee is paid. Full care

includes out-patient services and a maximum total of thirty days professional and hospital care in the Student Health Service Hospital, subject to the rules and regulations of the Student Health Service which govern such care.

Students who register for less than one-half the normal credit during any term and who pay less than the full Incidental Fee for that term, are entitled to out-patient clinic care without cost. This includes consultation with the Student Health Service physicians and the performance of certain laboratory tests when recommended by the physician. These students are not entitled to hospital and other services without the payment of regular hospital charges.

This hospital and medical service is granted only for illness or injuries covered by the rules and regulations of the Student Health Service. Hospital and medical services required on account of illnesses and injuries which do not come within the scope of the services granted by the Student Health Service must be paid for at the regular rate.

During epidemics in which large numbers of students become ill, the University provides temporary facilities which the Director of Student Health Service deems satisfactory for the hospitalization of the overflow of ill students. At all times during epidemics provisions are made to reserve regular hospital accommodations for critically ill students and emergencies.

Vaccination against smallpox and a tuberculin test are required of all students, prior to entrance. Immunization against poliomyelitis, tetanus, influenza and typhoid is strongly advised and may be obtained without charge, on request at the Student Health Center.

Students suffering from chronic illness or disability should arrange for medical care outside of the Student Health Service.

Any student whose mental condition prevents him from adjusting satisfactorily to the general pattern of University life or whose physical condition endangers the health of other students will be required by the Director of the Student Health Service to withdraw from the University.

All new students (freshman and transfer) are required to have a complete physical examination, prior to entrance. The reports of the Physical Examination and the Medical History must be submitted to the Director of the Student Health Service before enrollment. Any delay in accomplishing this may result in a delay in enrollment. These forms may be obtained from the Director of Admissions.

Students who are transferring from another college are required to furnish the Student Health Service with a College Health Transcript form which has been filled out by the health service at the college last attended. The blank form is obtained from the Office of the Director of Admissions.

Detailed information concerning the rules and regulations of the Student Health Service may be found in the M Book, a manual of information.

Mental Hygiene Clinic. The Student Health Service sponsors a Mental Hygiene Clinic which is equipped to provide treatment for emotional problems and to aid students with normal problems of adjustment occurring in college life. Appointment may be made directly with the Mental Hygiene Clinic by the student himself. Appointments also may be made through the Student Health Service.

Academic Advisers

Upon entering the University, each student is assigned a faculty adviser who assists the student with matters of a scholastic or academic nature. The adviser is available for consultation about the total college program and helps the students plan his schedule of courses. Upperclass advisers are appointed by the deans on the basis of the individual's academic and vocational interest.

In addition to the assigned advisers there is a staff of trained personnel in the office of each divisional dean available for student conferences.

Aids and Awards

The University has a number of resources available to assist worthy students who need financial assistance in order to attend college. These resources are used to assist as many students as possible who have good academic records and who are making a diligent effort to pursue a higher education.

These financial aids have been made available through the generosity of a large number of alumni and friends as well as by business firms, educational foundations, and other organizations. In addition, the Board of Curators provides a number of scholarships, and certain funds are set aside to provide part-time employment.

The University also administers the various financial aids provided by the National Defense Educational Act of 1958.

Certain scholarships and prizes are awarded to top-ranking students in recognition of their academic achievement. There are additional aids and awards for the purpose of encouraging and assisting other good students to continue their education where limited finances may be a problem.

Students are cautioned that college courses take much more time for study than high school courses. If possible it is wise to devote full time to college studies. However, if a shortage of finances requires that a student work at a part-time job he may do so. Many students earn a part of

their expenses while attending the University by means of clerical and stenographic work, laboratory and library assistance, waiting tables, and many other types of jobs on campus and downtown.

Many students have the desire to be entirely self-sufficient in their college financing. While this is an admirable trait, students and parents alike are cautioned not to carry this desire to the extreme. Parental help or other outside support is very necessary in most cases in order to enable our worthy students to gain the maximum benefit from their educational opportunities. There are not now enough financial aids available to meet the rapidly increasing demands for jobs, scholarships, and loans. Hence, these financial aids must be divided among those who have the greatest financial need.

Complete information on scholarships, part-time jobs, and student loan funds may be obtained by requesting the bulletin on Aids and Awards from the Director, Aids and Awards, 16 Jesse Hall.

Testing and Counseling Service

The University provides a counseling service to help students achieve maximum benefit from attending college. The student may consult a counselor for help in choosing a major in college; in choosing a vocational goal; improving study skills; or in resolving personal problems.

Counseling consists primarily of private discussions between the student and his counselor. Counseling also may include testing to determine the student's intelligence, aptitudes, vocational interests, and personality characteristics.

Counseling is available on a voluntary basis. Student may make an appointment with a counselor by contacting the Testing and Counseling Service.

Speech and Hearing Clinic

The Department of Speech and Dramatic Art conducts a clinic in which students may be examined and advised regarding the correction of minor as well as major speech or hearing defects. Students who think they need such assistance should consult the Director of the Speech Clinic in Parker Hall.

General Regulations and Requirements

Requirements in Physical Education and ROTC

All students, men and women, except those excused by the Committee on Required ROTC and Physical Education, must complete four semesters of work in physical education during their freshman and sophomore years.

All men students enrolled in the University, except those excused by the Committee, must complete a basic two-year course in ROTC during their freshman and sophomore years. Enrollment and completion of four semesters of work in the Army ROTC, Naval ROTC, or Air Force ROTC fulfills this requirement.

The Committee on Required ROTC and Physical Education may, for satisfactory reasons, excuse students from compliance with these requirements. All applications for excuse from the requirements should be filed in the Admissions Office not later than two weeks after the beginning of a semester. Excuses because of physical disability will be granted only as a result of physical examination by the Student Health Service.

With the exception of the Regular and Contract Naval ROTC programs which are four-year programs, enrollment in ROTC courses beyond the required basic courses is purely voluntary. By order of the Board of Curators the completion of the advanced courses in Army and Air Force ROTC, the Regular Naval ROTC program, and the last two years of the Contract Naval ROTC program once entered upon, shall be a prerequisite for graduation unless completion is excused by the appropriate agency of the United States government. University officials are required to carry out these regulations.

Requirements in American History, Institutions, and National and State Constitutions

Each student who expects to take an undergraduate degree in the University of Missouri must present as a requirement for graduation a course or courses in this area, taken at the University of Missouri or at other colleges or universities within the state of Missouri. The requirement can be satisfied by credit in one of the following courses: History 20,

American History (5); Political Science 1, American Government (5); History 312, American Constitutional History (3); Political Science 320, The American Constitution (3); Law 123, Constitutional Law (4). If a student is working for two baccalaureate degrees, this requirement will apply to the first degree only. A transfer student should inquire at the office of the dean of his division to determine whether he has satisfied this requirement.

Program of Studies—Credit Hour

No undergraduate student is permitted to carry in any semester courses aggregating less than 12 credit hours, exclusive of the required work in ROTC and physical education, without the special permission of his dean. The normal registration is 15 or 16 credit hours, exclusive of required work in ROTC and physical education. Fifteen hours is the maximum registration permitted in the School of Law except under extraordinary circumstances.

The unit of credit given in the University, the semester or credit hour, is the equivalent of a subject pursued one period per week for one semester of approximately sixteen weeks. Thus a course valued at 2 credit hours will meet two periods per week for a semester—a 5-hour course will meet five periods per week for a semester. The lecture or recitation period is fifty minutes in length and the usual laboratory period an hour and fifty minutes.

Graduation

The last year of work in any college or school must be done in residence, subject to such allowances and modifications as are indicated in the regulations of the separate colleges and schools.

In addition to the total amount of credit required for graduation, all schools and colleges of the University have a qualitative standard which must be met. This standard is usually expressed in terms of honor points. Detailed information about the points requirements for a particular school or college is included in the statement of graduation requirements for the college or school.

Any faculty may decline to recommend a student for a degree because of lack of moral qualifications even though the student has completed all the formal requirements for the degree.

A student who has completed the requirements for one bachelor's degree may receive also a second bachelor's degree upon the completion of the curriculum prescribed for the second degree, provided the work completed includes at least 24 hours more than the minimum requirement for the first degree.

Extension Course Credit

The Division of Continuing Education is provided partly for the convenience of students who wish to enroll in regular University subjects for college credit. Thousands of students enroll annually in correspondence courses or in extension center courses which are offered in various towns and cities in Missouri. As much as one-fourth of the credit accepted toward the A.B. or B.S. in Education degrees may be completed by correspondence or extension courses; however, the last 24 hours are usually required to be completed in residence. Credit may also be earned by correspondence and extension study and counted toward the master's degree.

The Division of Continuing Education also operates the University Film Library where educational films (16mm) are on deposit. This department also maintains a large collection of plays and operates the Dramatic Play Service.

Grading System

The grades used to report courses taken toward a bachelor's degree are A, B, C, D, and F. The grade A indicates superior work; the grade B, above average work; and C, average work. The grade of D indicates that the student's work is below average, the grade of F that the work done is undeserving of credit.

The grades of graduate students in all courses which count toward an advanced degree are reported as A, B, C, or F. The grade A means that the student's work in a course is of outstanding merit and is an honor grade. The grade B means that the student's work in a course is entirely satisfactory. The grade of C means that the student's work in a course will be considered satisfactory to a limited extent in fulfilling the requirements for advanced degrees. The grade of F means that the student's work in the course has not satisfied the minimum necessary for passing the course.

Scholastic Deficiencies

Those students who do not maintain satisfactory scholastic averages may be required to withdraw from the University. A student who is ineligible to continue in any division of the University will not be admitted to any other division except with the permission of both deans concerned.

Graduate and Undergraduate Enrollment

Undergraduates who at the beginning of their last semester have a graduation requirement for the bachelor's degree of less than a full semester of work and who have a cumulative grade point average of at least C may be permitted with the approval of the appropriate deans to register

simultaneously in the Graduate School for courses sufficient to make a full program. Students pursuing such a program are said to be dually enrolled.

Qualified undergraduates who do not avail themselves of the opportunity of dual registration will not receive credit in the Graduate School for credit earned in the undergraduate divisions above graduation requirements.

Automobile and Motor Vehicle Regulations

The University discourages the operation of automobiles in Columbia by University students. The University area is reasonably compact and conveniently located with respect to the city's business district, churches, and theaters, and few students have any real need for an automobile. It has been determined that the quality of the academic work of a student is often materially affected by his keeping and operating a motor vehicle and this is especially true in the case of younger students who are attending the University for the first time. It is also believed that the University has responsibility for the protection of the health and safety of the students while they are attending the University.

Some students, however, such as those with physical disabilities and those who live a considerable distance from the campus, need an automobile. Graduate and undergraduate students duly enrolled in the University who expect to operate automobiles or motor vehicles in Columbia should communicate with the Office of Traffic Safety for the latest traffic regulations pertaining to his eligibility to register and the fee charged for same. All motor vehicles must be registered with the Office of Traffic Safety within 48 hours after they are brought to Columbia. These requirements also apply to students enrolled in the University whose homes are in Columbia. Ownership of the vehicle is immaterial.

Failure to comply with the regulations may subject the student to disciplinary action, paying an additional fee and denial of the privilege of operating a motor vehicle in and about Columbia.

Bulletins

Students desiring detailed information not included in this publication may obtain the announcements of the divisions, bulletins on *Aids and Awards*, *Announcement of Courses*, and other University bulletins from the Stenographic Bureau, University of Missouri, Columbia, Missouri. Those interested in the School of Mines and Metallurgy should write to the Dean, School of Mines and Metallurgy, Rolla, Missouri.

New Student Orientation

All new students at the University are required to attend an orientation program scheduled annually before the opening of classes in the fall semester. The orientation program includes meetings, lectures, and social activities to acquaint the new student with facilities, services, personnel, activities, and regulations; to assist him with study habits, social and personality development; and to make a quick and satisfactory adjustment to college life.

Student Life and Activities

Many extracurricular activities in the fields of music, drama, religion, student forums, recreational athletics, publications, and organizational work are offered to University students. The departments and divisions maintain societies in special fields of interest and research which furnish an excellent opportunity for joint faculty-student participation. To be eligible for participation in an activity the student must be doing satisfactory academic work.

No organization or activity may represent the University before the public, or use the name of the University in connection with its own name, or with its members as students, without consent of the proper faculty committee. All organizations and activities on the campus are under the supervision of the Committee on Student Affairs, except those definitely under the divisional deans.

Missouri Student Association. Each student in the University is a member of the Missouri Student Association which gives all students a voice in University affairs and offers them the opportunity to fulfill their responsibilities to the student community through participation in a system of student self-government.

The activities of the Missouri Student Association present a program of extracurricular activities designed to be of direct support to the academic program of the University. Students who participate in this program may develop leadership and self-expression in addition to contributing to the development of the University community.

Student Union activities. The recreational program of the Memorial Student Union is planned and managed by student committees which function under the Student Union Activities Council and the Student Union Board. The purpose of the program is to provide the campus with a well-rounded social, recreational, and cultural program and to provide opportunity for leadership training and community service.

The Union program includes dances, square dances, parties, table tennis, cards, chess, and other games. Other activities are student-faculty coffee hours, a film classics series, a forum featuring student and faculty speakers, and special events such as an original variety show and a lost and found auction which raises money for the Campus Chest.

Darkrooms are provided for those interested in photography and an amateur radio station provides diversion for amateurs in the radio field.

The Student Union has several hundred recordings of classical and concert music which students may enjoy in the music room. Other music activities include Christmas carol singing and an annual barbershop quartet contest.

An activities calendar, carrying a schedule of activities in the Union, is published monthly and is available to all students.

Association of Women Students. AWS is an organization which considers standards for women students and acts as their governing body. All women enrolled in the University are members.

Athletics and recreation. Indoor physical education and athletic activities for men are held in Rothwell Gymnasium and Brewer Field House. Outdoor facilities include Rollins Field which has a cinder track, playfield, paved tennis court, and handball courts. Memorial Stadium seats 37,000 spectators for intercollegiate football games and track meets. The women of the University have a separate field for outdoor activities, a gymnasium with facilities for indoor recreational activities including a swimming pool with up-to-date chlorination and filtration equipment. Under construction near the stadium are an 18-hole golf course and additional playfields covering a 30-acre plot.

Recreational uses of facilities and some equipment are arranged for men when the areas are not otherwise assigned, and on Sunday afternoons during the winter season. An extensive intramural program for men provides the opportunity for students to participate in competitive sports as regularly as time, interest, and ability permit. Tournaments are arranged in touch football, tennis, handball, basketball, table tennis, volleyball, horseshoe pitching, softball, and track and field events.

Intramural competition for women is offered in tennis, swimming, bowling, volleyball, basketball, table tennis, badminton, archery, and softball and a limited number of telegraphic intercollegiate meets are held annually.

Concerts and recitals. The University presents an annual concert series which gives students an opportunity to hear and see internationally acclaimed artists, orchestras, and other musical programs free of charge. In addition, student recitals are scheduled weekly and regular programs are given by the University Symphony Orchestra, the University Singers, University Chorus, and the Concert Band.

Dramatics. All students beyond the first semester of the freshman year are eligible to participate in the activities of Missouri Workshop Theatre. Each year Workshop presents three major productions and coop-

erates with the Missouri Student Association in the presentation of an All-School Musical.

In addition, Workshop sponsors an intramural one-act play contest, conducts an original one-act playwriting contest, and sponsors the Starlight Theatre on the roof of the Education Building during the summer session.

Forensics. Intramural activities in forensics at the University include such activities as an annual extemporaneous speaking contest, intramural debate tournament, a student speakers' bureau, and the Stephens oratorical contest. An extensive intercollegiate program features debate, discussion, oratory, legislative assemblies, after-dinner speaking, and similar events. The intercollegiate debate program is closely coordinated with two one-hour courses in intercollegiate debate.

Fraternities and sororities. Thirty-one social fraternities and fourteen social sororities, all with national affiliations, have chapters at the University. These organizations are subject to certain rules and regulations of the Committee on Student Affairs. The Interfraternity Council and the Panhellenic Association are the governing and coordinating councils for the member groups, and the Office of the Dean of Students, through the Director of Student Affairs for Men and the Director of Student Affairs for Women, counsels with the officers of the individual groups.

Honorary organizations. Honorary organizations recognize outstanding scholastic achievement and leadership and service to the University. Phi Eta Sigma (men) and Kappa Epsilon Alpha (women) recognize high scholastic attainment among freshman students. There are many other organizations such as Phi Beta Kappa whose purpose is to improve the cultural and scholastic standards in particular areas of interest. Mortar Board, Mystical Seven, Omicron Delta Kappa, and QEBH are senior organizations which recognize leadership and service in addition to scholastic attainment.

Musical organizations. Students majoring in music or music education are expected to participate in the University Chorus, University Orchestra, or other ensembles unless excused by the Chairman of the Department of Music. Any of the musical organizations may be elected as an activity as well as for credit.

The University Chorus prepares large choral works for presentation with soloists and orchestra during the year, and the University Singers, consisting of about sixty selected student singers, gives frequent public performances. Faculty, students, and players of orchestral instruments are admitted to membership in the University Orchestra after conference with the director. The University Band is organized as a concert unit, a marching

unit, and a ROTC or regimental unit. Marching Band is accepted as a section of required physical education for men.

Student publications. Student publication experience is available to all interested students. Official publications under the supervision of the University Board of Publications are the *Savitar*, student yearbook, and the *Maneater*, weekly newspaper. The *Missouri Shamrock*, published by the Engineers Club, and the *Missouri College Farmer*, sponsored by the Agricultural Club, are supervised by the deans of the respective divisions.

Religious activities. The many Columbia churches offer a full program of interest to the students in the University. Special consideration is given to make the Sunday services interesting to the student community, and provision is made for special activities for young people only. The Student Religious Council, which coordinates student religious work on the campuses of Christian College, Stephens College, and the University, the University Religious Council which serves to further appreciation of religious values on the University campus, and the many church student centers of the city, afford opportunity for the student to work with the State Cancer Hospital vesper program, the crippled children's Sunday school, the student clinic, the annual Religion-in-Life Week, and other projects of need on campus and in the city.

The Young Men's Christian Association at the University of Missouri is a fellowship of student and faculty members. The program includes activities in religious, national, and world affairs, international relations, leadership training, social relations, community service, and race relations. Through worship, study, and action individual members are encouraged to evolve a Christian faith adequate to meet life's problems. Membership is open to all male students and faculty of the University.

The Young Women's Christian Association at the University of Missouri is open to all University women who may be interested in its program of friendship, religious work, and service. The program includes small interest and discussion groups, an active group in social service, and is planned so that members may find a type of service of interest to each individual.

Political Activities. In addition to the opportunities provided for those who wish to participate in student government, membership in such organizations as the Young Democrat Club and the Young Republican Club is open to students with an interest in the political affairs of the state and nation. Many of the forum and discussion groups sponsored by students are likewise concerned with economic and social issues which the democratic process resolves through political parties.

The College of Arts and Science

In the United States and in Europe, the college of arts and science is, from both historical and functional points of view, the core of the modern university. In the early history of American institutions of higher learning, it was this college which was first founded. It is the setting for the liberal education in the natural and social sciences, and in the humanistic studies, which is vital to an intelligent understanding of the modern world. Truly educated men and women are more than trained job-holders; they possess a liberal education which has given them deep insight and broad understanding.

The College of Arts and Science at the University of Missouri evolved from the Academic Department established in 1839. The College has steadily expanded its curriculum to meet the demands of the complexity of the modern world, and at the present time offers a Bachelor of Arts degree in a variety of subject matter fields.

For those desiring more highly specialized training, a Bachelor of Music degree and Bachelor of Science degrees in Chemistry, Geology, Medical Technology, and Physics are also offered.

Students planning to enter the Schools of Business and Public Administration, Journalism, Law, and Medicine also spend the first two or three years in the College in preparation for their professional training. Many students, realizing the increased necessity for a broad background in the liberal arts, earn undergraduate degrees in the College prior to enrolling in the Schools of Law or Medicine. The College also has a special dual enrollment program for students in these fields, which enables them to receive two degrees without having to spend an additional year in undergraduate residence.

Students who have not crystallized their educational objectives usually enroll in the College of Arts and Science. Here they can try a variety of courses to discover their real interests and abilities and, at the same time, they may consult with teachers and expert advisers and counselors regarding educational goals suitable to their talents and tastes. Thus they avoid the loss of time that often occurs when a student makes a wrong choice, specializes too early, and then finds that he must change his educational program.

Students receiving degrees from the College of Arts and Science are prepared to enter a variety of occupations and positions in industry and business and in government service. Within recent years there has been a

demand in business and industry for liberal arts graduates, and the College assists its graduates in finding employment.

One of the main objectives of the liberal arts college is to provide the knowledge and encouragement for continuation of scholarly work in graduate schools, which have become the center of higher learning and research.

Whether or not a student enters a professional school or remains in the College to receive a degree, the widest experience possible with the liberal arts is highly important. The person who leads the most satisfactory life in modern society is one whose experience is broad and whose knowledge of fundamentals is deep, enabling him to meet new situations with intelligence and integrity.

Admission

All communications regarding entrance should be addressed to the Director of Admissions, 130 Jesse Hall. Details concerning admission are contained in the chapter on Admission.

Freshmen. For admission to the College of Arts and Science a minimum of 15 accredited high school units, exclusive of physical education and military science, must be presented. Three units must be in English and a minimum of 8 additional units from the fields of mathematics, social science, science, and foreign language must be presented. Students are advised to complete at least $1\frac{1}{2}$ units of algebra, 1 unit of geometry, and 2 units in one foreign language in order to correlate more efficiently their secondary and college educations. The remainder of the 15 units may be selected from any other courses accepted by an accredited high school for its diploma, with the exception of physical education and ROTC. Students who present 15 acceptable units but fewer than the 11 from the groups specified may be admitted on condition. A condition may be removed by the substitution of University credit at the rate of 5 semester hours for each unit of condition.

Advanced Standing Program. Entering students, before earning any credit in residence, are eligible to take examinations for advanced standing. To receive advanced standing in a given subject upon admission to the University, a student must pass an examination comparable to a final examination in a college-level course in that subject.

Examinations accepted for advanced standing include the following:

A. *University Examinations*

Applications by entering freshmen to take advanced placement examinations must be made before their first day of classes. Applications are made to the departments indicated in the following table.

Subject of Examination	Number of Credit Hours	Application should be made to:
Algebra	3	Department of Mathematics, 210 Engr. Bldg.
American Government	5	Department of Political Science, 205 B&PA Bldg.
English	3	No Application Necessary
French	3	Romance Language Department, 321 Jesse Hall
German	3	German Department, 309 Jesse Hall
Latin	3	Department of Classical Languages, 211 Jesse Hall
Spanish	3	Romance Language Department, 321 Jesse Hall
Trigonometry	2	Department of Mathematics, 201 Engr. Bldg.

B. CEEB Examinations

College Entrance Examination Board Advanced Placement Examinations in the following subjects have been approved as a basis for advanced credit at the University. Applications to take CEEB Examinations, and inquiries about the material covered, should be addressed to College Board Advanced Placement Examinations, Box 592, Princeton, N. J.

<i>Subject of Examination</i>	<i>Number of Credit Hours</i>
Biology	5
Chemistry	5
American History	5
European History	5
Physics	5

Transfer credit. A student who has been regularly admitted to another college or university of recognized standing may be admitted to the College of Arts and Science upon presentation of an official transcript and a statement of honorable dismissal. Students with inferior records from other institutions may be admitted only by the University Committee on Entrance, and, if accepted for admission, are placed on scholastic probation and required to maintain a satisfactory record at all times.

Official notice regarding admission and transfer credit is given students whose applications and credentials are filed with the Director of Admissions in sufficient time before opening of the term for which application is made.

Normally, transfer credit is given only for those courses regularly approved in the liberal arts program. No more than 16 hours a semester are transferable. A maximum of 64 hours may be transferred from a junior college. *Courses completed with a grade of D or lower are not accepted in transfer from another institution.*

Evaluation of credit for advanced standing for degrees in the College is made by the Office of the Dean. The Director of Admissions evaluates credit for transfer students planning to be admitted to professional training in the Schools of Law, Medicine, Journalism, or Business and Public Administration.

Rules Governing Enrollment—Residence Requirement

A student may enroll in a minimum of 12 and a maximum of 16 credit hours per semester, exclusive of the required courses in ROTC and physical education. A student with a superior scholastic record may be permitted to register for more than 16 hours with the approval of the Dean.

Enrollment in courses after the regular registration date may carry a penalty of credit loss. Departments may reduce course credit for students who enter after the first week of class work. Normally, no student will be permitted to enter a class after the third week.

No student shall be recommended for the degree who has not completed six semesters of college work. Credit will be given, however, for work completed in other institutions of college rank and for correspondence or extension course work completed in the Division of Continuing Education. The last 24 hours taken in fulfillment of the requirements for graduation, however, must be completed in residence. Students who have not spent two full semesters in residence shall not be recommended for the degree, and those who are candidates for dual degrees in Law, Medicine, or Medical Technology must complete their junior year *in residence* at the University of Missouri.

The Honors College

The College of Arts and Science provides a General Honors Program and a Departmental Honors Program to students who have demonstrated high scholastic ability.

The General Honors Program provides special courses and sections for students who rank in the upper 15 per cent of the freshman class as judged by high school rank, achievement on the Ohio Psychological Test, and scores on a variety of tests taken on admission to the University. Students who demonstrate superior ability may take a special course in English for which they alone are eligible. In addition, a number of the basic courses in the College provide special sections for students of high scholastic ability.

These sections are taught by outstanding faculty members; they are designed not to provide difficult versions of the standard courses, but rather to permit innovations in both content and method of presentation in accord with the needs, interests, and capabilities of highly able students. Special sections offer more than the usual opportunity for independent thought, individual programs, and class discussion. Students participating in these programs are accorded a number of special privileges, are exempt from certain regulations, and are encouraged to take part in the appropriate Departmental Honors Programs in their upperclass years.

The Departmental Honors Program provides, in a number of departments, opportunities for superior students to do independent work under the supervision of faculty members in their major fields of interest. Students accepted into the program register in the senior year (in the junior year for students in the English Department's Honors Program) for the Honors Program in the department of their major interest. Each departmental honors course carries credit toward graduation and is recorded on their transcripts. Those whose work is of sufficiently high quality are granted their degrees "With Honors" and the phrase "With Honors" (in the major field) is recorded on their diplomas. Honors students with exceptionally high records are accorded notations on their diplomas of *cum laude*, *magna cum laude*, or *summa cum laude*.

Degrees

The College of Arts and Science offers a Bachelor of Arts (A.B.) degree, a Bachelor of Science (B.S.) degree, and a Bachelor of Music (B.M.) degree. The College, in conjunction with the University of Missouri School of Medicine, offers a Bachelor of Science degree in Medical Technology.

To receive any one of these baccalaureate degrees, a candidate must have been regularly admitted and must have earned 120 semester hours of credit with an average grade of C, exclusive of the required courses in physical education and ROTC. The requirements for each baccalaureate degree include a program of basic skills and general education courses, which are largely completed in the freshman and sophomore years, and an Area of Concentration, which is completed in the junior and senior years. Specific requirements for each of these degrees are described in detail in the Announcement Bulletin of the College of Arts and Science.

Combined Courses for the Bachelor of Arts Degree

Dual Degree Programs with Law or Medicine. Students planning to enroll in the School of Law or School of Medicine who complete within their first 90 hours all of the specific requirements for the Bachelor of Arts

degree, may be allowed to count, at the discretion of the Dean, credit in law or medical courses not to exceed 30 credit hours.

Candidates for either of these dual degree programs must spend their junior year *in residence at the University of Missouri* and must complete their first year of professional work in the *University of Missouri* School of Law or School of Medicine. Students who wish to take advantage of this special program should plan their programs carefully with their advisers in order to fulfill all degree requirements during their first three years and should avoid enrolling in courses that do not fulfill a specific requirement for the A.B. degree. Transfer students and those who are deficient in basic skills upon their admission to the University of Missouri, or those who plan to enroll in advanced ROTC courses, are advised that additional time may be required for completion of the requirements for the A.B. degree.

Arts and Science and Engineering. Students who are candidates for both the degree in Arts and Science and the degree in Engineering may count toward the A.B. degree 20 hours from their courses in Engineering.

Students may proceed toward both an A.B. degree and a B.S. degree in Engineering by following a five-year curriculum of courses in both colleges. A careful selection of courses under expert advising will make it possible to receive both degrees in this time.

Honor List

Following the close of each semester, the College of Arts and Science gives public recognition to those students who for the semester have earned a grade point average of 2.75 or higher, which ranks them among the superior students at the University.

School of Social Work in the College of Arts and Science

Social Work is a fairly recent profession undergoing rapid growth and development. Based on the democratic philosophy which emphasizes the inherent value of all people, social work endeavors not only to treat social breakdowns affecting the individual, family, and community, but also to prevent social ills at all levels.

The complexities of modern life and attendant problems will continue to create conditions requiring the attention of trained social workers with technical skills as well as knowledge and insight. Those who enter the work will find opportunities for professional advancement and service in contributing to the improved welfare of society.

Adequate training for a professional career in social work requires graduate study. The school is a member of the Council on Social Work Education and is accredited as a two-year graduate school. Organized as a department in 1946, the present School was established in 1953.

The objective of the School is to prepare for effective professional practice and leadership in social work. For this purpose a two-year graduate program leading to the degree of Master of Science has been developed. The program includes courses basic to all social work and allows for elective work in special fields in which the student may be interested, such as family and child welfare, medical and psychiatric social work, correctional work, and research.

The School also offers an undergraduate program which leads to the A.B. degree. This program is designed for three groups of students: those wishing to qualify for junior professional work in departments of public welfare, youth service organizations, and recreational programs; those who expect to complete the full professional program, and those who do not plan a professional career in social work but who have a general interest in the field and wish to prepare for civic leadership in the social services.

For admission to the graduate program the student must have an undergraduate degree (A.B. or B.S.) or its equivalent including not less than 30 semester hours in the social and biological sciences.

For the degree of Bachelor of Arts (A.B.) in social work the students must satisfy the requirements for that degree in the College of Arts and

Science and must elect social work as his undergraduate Area of Concentration.

Requirements for the Area of Concentration in Social Work include: 20 hours in a combination of Social Work and one of the following departments: Sociology & Anthropology, or Economics, or Political Science, or Psychology; at least 5 hours from each of the departments listed above but not selected for the combination with Social Work courses; and an additional 12 hours in the Social Studies. The Announcement of the College of Arts and Science gives more detailed information on the undergraduate program.

Freshmen and sophomores in the College of Arts and Science who plan to major in social work should request assignment to a member of the social work faculty for advisement.

For the requirements for the degree of Master of Science in social work the student should consult the Announcement of the School of Social Work or the Announcement of the Graduate School.

For further information, address Office of the Dean, College of Arts and Science, 210 Jesse Hall.

Division of Agricultural Sciences

The Division of Agricultural Sciences, which now includes the College of Agriculture, the School of Veterinary Medicine, and the School of Forestry, had its beginning when the University of Missouri was designated a land-grant college by the First Morrill Act. The College of Agriculture was organized in 1870, the School of Veterinary Medicine in 1949, and the School of Forestry in 1957. The character of instruction is to some extent specified by legal enactments.

Special Acts of Congress Supporting Land-Grant Colleges

The first Morrill Act provided that the funds from the sale of 275,000 acres of land granted to Missouri by act of Congress in 1862 should be invested and the income used to support and maintain a college of agriculture and mechanic arts. The Missouri Legislature has provided that one-fourth of this income should go to the School of Mines and Metallurgy at Rolla.

The Second Morrill Act and the Nelson Amendment provide an annual appropriation of \$50,000. One-sixteenth of this amount by law is appropriated to Lincoln University at Jefferson City for the education of Negro students in agriculture and mechanic arts. One-fourth of the remainder is apportioned to the School of Mines and Metallurgy at Rolla.

Under Public Law 352, the Hatch Act, the Adams Act, the Purnell Act, the Bankhead-Jones Act, and succeeding amendments were combined into a single law to be known as the Hatch Act. Under this Act the Missouri Agricultural Experiment Station received \$646,350 from federal funds for agricultural research during the year ending June 30, 1960. In addition, the Regional Research Fund for the Missouri Agricultural Experiment Station totals \$117,175.

The Agricultural Marketing Act of 1946 provided additional funds each year to the Missouri Agricultural Experiment Station for research in marketing. During the year ending June 30, 1959, the Missouri Agricultural Experimental Station received \$26,000.

The Smith-Lever Amended Act of 1953 appropriates funds each year to Missouri for agricultural extension teaching and demonstration of improved agricultural and home economics practices. The Clarke-McNary Act provides funds for agricultural extension work in forestry, and the Research and Marketing Act appropriates funds each year for cooperative agricultural extension work.

College of Agriculture

The College of Agriculture offers programs of instruction designed to provide professional training in the areas of production, business and industry, and teaching, research, and extension in home economics and agriculture.

Emphasis is placed upon a liberal educational background and a degree of specialization in one or more areas applicable to home economics and agriculture in their broadest sense.

Many responsible positions are open to both women and men well prepared in careers in home economics and agriculture.

In addition to the teaching program, the College of Agriculture is engaged in a comprehensive program of agricultural research and agricultural extension for citizens of Missouri.

Physical Plant

The major buildings of the College of Agriculture are: Mumford Hall, Waters Hall, Whitten Hall, Schweitzer Hall, Eckles Hall, Gwynn Hall, The Agricultural Laboratory Building, two major Agricultural Engineering Buildings, the Poultry Building, and the Livestock Pavilion.

Major additions are now being completed to the Agricultural Laboratory Building and the Home Economics Building. Also, enlarged greenhouse facilities and a modern slaughtering plant will be available for the 1960-61 school year.

Land

The College of Agriculture owns and operates more than 3500 acres of land near Columbia which is utilized for instructional and investigational purposes in soils, crops, dairying, livestock and poultry production, horticulture, agricultural engineering, entomology, and veterinary medicine. Research centers have been established at various outlying locations in Missouri.

Livestock

The Department of Animal Husbandry maintains beef cattle herds totaling more than 900 head of Hereford, Aberdeen Angus, and Shorthorn cattle.

Three hundred and fifty head of Corriedale, Hampshire, and Shropshire sheep are maintained.

Some five hundred hogs representing the Duroc, Hampshire, Poland China and Landrace breeds are available for instructional use by students and for experimental work.

The University of Missouri dairy herd consists of more than 500 head of Guernsey, Jersey, Holstein, and Brown Swiss cattle.

Several thousand head of poultry, both chickens and turkeys, are raised each year for teaching, research, and demonstration purposes.

Admission

All communications regarding entrance should be addressed to the Director of Admissions, 130 Jesse Hall. Details concerning admission are included in the chapter on Admission.

Freshmen: Fifteen units of acceptable high school credits are required. In the College of Agriculture these must include 3 units of English, 1 of Mathematics, 1 of Social Science, and 1 of Natural Science.

Beginning in September 1961, two units of Mathematics, neither of which can be General Mathematics, must be included.

Admission to advanced standing: Advanced standing will be accepted essentially at face-value from all fully accredited colleges. This does not necessarily mean that *all* such courses can be used toward the requirements for a degree. All specific requirements, as specified in the *Announcement of the College of Agriculture*, must be met as part of the general requirements for a degree.

The agricultural departments of Central Missouri State College, Northeast Missouri State Teachers College, Northwest Missouri State College, Southeast Missouri State College, Southwest Missouri State College, and Lincoln University, can assist students in planning a carefully integrated program so that credits are fully transferable to the College of Agriculture.

Generally speaking, satisfactory programs can be completed at most junior colleges for transfer of credits without substantial loss of time.

It is suggested that students who plan to attend some other college, prior to enrolling in the College of Agriculture, write the Dean's Office, College of Agriculture, University of Missouri, Columbia, Missouri, for advice on programs of study.

Curricula

Courses leading to the degrees, Bachelor of Science in Agriculture and Bachelor of Science in Home Economics, are offered in the College of Agriculture and a detailed statement of requirements for graduation will be

found in the *Announcement of the College of Agriculture*; or may be secured by writing to the Dean's Office, College of Agriculture, Columbia, Missouri.

The various curricula offer complete courses of study in all the areas of agriculture commonly found in this part of the country.

Special courses of study are offered for training teachers in vocational agriculture, teachers of vocational home economics, and agricultural and home economics journalists.

A two year pre-veterinary medical curriculum is offered and will be found described in the *Announcement of the College of Agriculture* or the *Announcement of the School of Veterinary Medicine*.

A special Announcement for Home Economics is published and may be secured by writing the Department of Home Economics, Gwynn Hall, University of Missouri, Columbia, Missouri.

Also, a two-year curriculum is offered in most of the production areas in agriculture commonly practiced in Missouri. A suitable certificate is awarded upon the satisfactory completion of this course of study.

Courses completed in the two-year collegiate course may later be used toward a degree in Agriculture in the regular four-year program of work, if so desired.

Graduation Requirements

Graduation requirements are listed in the *Announcement of the College of Agriculture*. Briefly, 128 hours of college credits, exclusive of the required courses in military and physical education, are required for graduation. The last two years, or specifically, 68 hours of this work must be completed in residence.

Advisers

A well developed program of advisement is provided for all students in the College of Agriculture. Advisers are assigned in conference with the staff of the Dean's Office.

The *Announcement* for Agriculture or the *Announcement* for Home Economics may be secured by writing to the Dean's Office, College of Agriculture, University of Missouri, Columbia, Missouri.

School of Forestry

The curriculum leading to the degree of Bachelor of Science in Forestry was established in 1946 and the first class graduated in 1949. The forestry program was accredited by the Society of American Foresters in 1950. In 1957 the Department was organized as the School of Forestry.

The purposes of the School of Forestry are to provide through the four-year curricula and extracurricular activities a balance of the fundamental sciences, technical skills, and the humanities which will qualify the graduate for professional work and useful citizenship, and to provide, through short courses, up-to-date technical and general information for professional and non-professional groups.

Facilities

Buildings. Offices, classrooms and laboratories of the School of Forestry are housed in the basement and the first floor of the Hitt Street wing of the New Agricultural Building. Well-equipped laboratories for research and instruction are available for work in tree physiology and ecology, forest pathology, wood products, wood technology, dendrology, cartography, mensuration and photogrammetry.

University Forest. The University Forest, an area of 9,000 acres of timber land located in Butler County 15 miles north of Poplar Bluff, has dormitories, classrooms, and other facilities for the sophomore students who for 12 weeks during the summer receive instruction in several phases of forestry. A sawmill, dry kiln, and wood utilization building provide facilities for instruction and research in various phases of wood utilization. An extensive research program in timber management is also in operation at the University Forest.

Weldon Spring Experimental Farm. This farm in St. Charles County contains approximately 4,500 acres of wooded land and supports some of the finest timber in the state.

Ashland Wildlife Area. The 2,000-acre Ashland Wildlife Area, located 20 miles from Columbia, has considerable timber land as well as forest plantations of a number of species.

Schnabel Arboretum and Demonstration Woods. This area lies 15 miles from Columbia along the Missouri River and supports an unusual type of timber. It was donated in 1954 by Mr. and Mrs. John Schnabel.

Admission

All communications concerning admission should be addressed to the Director of Admissions, 130 Jesse Hall. Details concerning admission are contained in the chapter on Admission.

Freshmen. Minimum entrance requirements are 15 acceptable high school units, exclusive of physical education and military science. In the School of Forestry, these must include 3 units of English and 2 units of mathematics. A prospective student who has not completed these requirements may be admitted provisionally by the Director of the School of Forestry. If 1 unit of algebra has not been completed in high school, a student must enroll in Mathematics 3, Basic Algebra. A student who is admitted without plane geometry must complete Mathematics 5, Plane and Solid Geometry, with no credit allowed toward the degree.

Effective September, 1960, prospective students must present 3 units of high school mathematics to be eligible for admission to the School of Forestry. One and one-half units must be in algebra, 1 unit in plane geometry, and $\frac{1}{2}$ unit in either solid geometry or trigonometry.

It is recommended that students complete 1 unit of science with laboratory in high school.

Advanced standing. Courses completed at other colleges or universities may be accepted for the degree provided the work is satisfactory as to subject matter content and credit hours.

Transfer of credit in forestry courses toward a Bachelor of Science degree in Forestry at the University of Missouri is limited to those schools which offer a four-year curriculum in forestry.

Curricula

Two curricula are offered in the School of Forestry, (1) forestry, and (2) wood-products merchandising. The objective of the forestry curriculum is to train men primarily in the field of forest land management. The purpose of the wood-products merchandising curriculum is to train men primarily for sales work with different wood products and building materials industries. The career opportunities in these fields are discussed fully in *Careers in Forestry and Related Fields*, a copy of which is available on request.

A student may enroll for a minimum of 12 credit hours per semester. He may not enroll for more credit hours per semester than is shown in the curriculum except with the permission of the director.

Residence and Graduation Requirements

Satisfactory completion of 142 hours with an average grade of C, i.e., a grade point average of not less than 2.00 for all courses, is required for graduation. For the purpose of calculating grade point averages, the following values are assigned the various grades: A, 4 points; B, 3 points; C, 2 points; D, 1 point; F, no points.

In the forestry curriculum, the last 60 hours of the 142 must be completed in residence, 45 of which must be in forestry courses. In the wood-products merchandising curriculum, the last 60 hours of the 142 must be completed in residence, 18 of which must be in forestry courses.

Degrees

The degree, Bachelor of Science in Forestry, is given for completion of requirements in both the forestry and wood-products merchandising curricula.

Students must make application for graduation to the Director of the School of Forestry one month in advance of graduation.

Graduate Study

Graduate work leading to the degree, Master of Science in Forestry, is offered through the Graduate School. The regulations of the Graduate School apply.

Placement Service

The School of Forestry considers the placement of its students and graduates an integral part of its program. Students are counseled on employment opportunities, available positions are called to their attention, and arrangements are made for interviews. Employment assistance is also given to alumni when requested. Alumni are also advised of employment opportunities through the *Missouri Forestry Alumni News*, a publication of the Forestry Alumni Association.

For further information concerning the School of Forestry address the Director, School of Forestry, 13 Forestry Building.

School of Veterinary Medicine

Veterinary medicine has been included in the program of the University of Missouri since 1884. Action by the Board of Curators created the School of Veterinary Medicine in 1949, and the first class was graduated in 1950. The aims of the school are to give thorough training in all phases of veterinary medicine, to contribute to the advancement of veterinary medicine by original research, and to promote the dissemination of veterinary medical knowledge throughout the world.

The school has five departments which conduct the teaching, research, and service programs. In addition to courses for students in the professional curriculum, it offers courses for undergraduate and graduate credit to students in other related divisions of the University. Graduate training is also offered for holders of the D.V.M.

Facilities

Connaway Hall houses the administrative offices, the library, and the Departments of Veterinary Anatomy, Veterinary Bacteriology and Parasitology, and Veterinary Pathology, as well as the diagnostic laboratories. The library contains about 6,000 volumes and receives approximately 200 journals and periodicals.

Veterinary Hospital. The Departments of Veterinary Medicine and Surgery and Veterinary Physiology and Pharmacology occupy a temporary building which contains offices, classrooms, and laboratories as well as facilities for the treatment and hospitalization of large and small animals. Under construction and scheduled for completion in late 1960 is a modern hospital which will be occupied by the Department of Veterinary Medicine and Surgery.

Research Farm. A 90-acre farm north of Columbia has laboratories and other buildings and equipment for research on diseases of domestic animals and poultry. A smaller area on campus has buildings to house additional animals for teaching and research.

In addition to the school's library, additional library facilities on the campus include the General Library and the Agricultural, Biological, and Medical Libraries.

Course of Study

The curriculum covers a period of four years (eight semesters). The first two years are devoted to a study of basic preclinical subjects and the last two include subjects that are mainly clinical, in which the students deal with actual cases in the clinic and hospital. The complete curriculum is included in the Announcement of the School of Veterinary Medicine which is available upon request.

Requirements for Admission

The requirements for admission are:

An applicant must be a resident of Missouri.

Applicants must complete the following subjects exclusive of physical education and R.O.T.C. in the College of Agriculture or in an approved college or university.

<i>Subjects</i>	<i>Hours</i>
English 1 and 2 (Composition and Rhetoric) and 60 or 61 (Exposition or Technical Writing)	9
Zoology 11—General Zoology	5
Veterinary and Medical Entomology 115	3
Chemistry 1 or 11 and 15—General Inorganic and Elementary Organic	8
Mathematics 3, 7, or 10—Algebra	3
Speech 175—Public Speaking	3
Political Science 1, American Government, or American History 20, American History	5
Genetics 140—General Genetics	3
Agricultural Economics 50	5
Agricultural Chemistry 210—Agricultural Biochemistry	5
Agricultural Economics 1—Introduction to Agriculture	3
Animal Husbandry 1	3
Animal Husbandry 202—Principles of Nutrition	3
Physics 11	5
Elective	3
	66

Elective to be selected from the following: Accounting and Statistics 36, Animal Science, Rural Sociology 1, Psychology 1, or Philosophy 1 or 5.

No course which counts toward a degree in veterinary medicine may be included in the credit hours required for admission. Applicants must average C or better in the preprofessional requirements. Applicants are required to take the Veterinary Medical Aptitude Test.

Applicants will be interviewed by the Committee on Admissions which will select veterinary students on the basis of scholarship, background, seriousness of purpose, fitness for the work they plan to undertake, and the

scores made on the Veterinary Aptitude Test. The Committee reserves the right to require of any applicant an examination in any or all preprofessional subjects.

Application for Admission

Only one class of thirty students is admitted (in September) each year. Applications are accepted only from Missouri residents. Application blanks can be secured from the Dean, School of Veterinary Medicine, 104 Conna-way Hall, Columbia, Missouri, and must be filed with him as early as possible and not later than March 1 of the year in which admission is sought. Letters of reference and all other correspondence should be addressed to the dean.

All applicants must take the Veterinary Medical Aptitude Test as early as possible in the year during which they hope to enter. Application forms may be obtained from the office of the Dean, School of Veterinary Medicine. Completed forms should be sent to Division of Professional Examinations, The Psychological Corporation, 522 Fifth Avenue, New York 36, New York.

Withdrawal and Readmission

Any student who withdraws from the School of Veterinary Medicine or is eliminated for cause must apply for readmission and be interviewed by the Committee on Admissions.

Any student who has been dropped because of unsatisfactory grades, if readmitted, must repeat each course in which he received a grade below C. This applies to courses that were being taken during the semester in which he was dropped.

Requirements for Graduation

To earn the degree, Doctor of Veterinary Medicine, a student must complete all courses in the professional curriculum. The courses must be taken in the order listed in the curriculum. Earlier courses are prerequisites for succeeding courses.

A student is required to have a cumulative C average or better in courses in the first two years of the curriculum before he can be promoted to the third year.

Students in veterinary medicine are urged to spend at least one summer vacation period working with a licensed graduate veterinarian in practice or in a program of a federal, state, or municipal agency concerned with veterinary medicine.

Further information may be obtained from the Dean, School of Veterinary Medicine, 104 Connaway Hall, Columbia, Missouri.

The Bachelor of Science Degree

Those students who complete all of the preprofessional requirements at the University of Missouri can earn the B.S. degree in Agriculture, with a major in pre-veterinary science, after satisfactorily completing the second year in the School of Veterinary Medicine.

School of Business and Public Administration

Professional education in business and public administration is offered in this division. The several curricula give the student a wide choice in preparing for occupations in industry, government service, private business, public affairs, and teaching. At least forty per cent of the work in all business curricula is in business and economic courses in accordance with the regulations of the American Association of Collegiate Schools of Business, of which this School is a member.

The offices of the School of Business and Public Administration are located in the new Business and Public Administration Building at Ninth and University Streets. The business statistics laboratory is equipped with electric automatic calculating machines as well as electric adding and listing machines sufficient for class use.

Admission

All communications regarding entrance credits should be addressed to the Director of Admissions. Inquiries regarding other matters may be addressed to the Dean of this School.

The requirements for admission as a regular student to the School of Business and Public Administration are the satisfactory completion of a four year high school course or its equivalent, and 60 hours of credit with an average grade of C or above in the Colleges of Arts and Science, Agriculture, Education, or Engineering, or a combination thereof, in the University of Missouri or in any college or university of recognized standing. Credit in required work in physical education or basic ROTC may not be counted in satisfying the above requirements. A student in other divisions of the University or in some other accredited institution who transfers to this School will receive credit for his work insofar as it covers the required and elective courses for admission or for a degree.

A student who is unable to present 60 credit hours with a grade average of C or above for admission may be admitted with a condition of as much as 6 hours. Courses in which a student has made a grade of D are not accepted for admission unless the D grade is balanced by an equal number of hours of B. All students admitted to this School with credit of from 54

to 84 hours are classified as juniors; those with 84 hours or more are classified as seniors.

Plan for Freshman and Sophomore Years

A student intending to enter the School of Business and Public Administration enrolls in the College of Arts and Science, Agriculture, Education, or Engineering for his freshman and sophomore years. The courses required for admission and the suggested elective courses for the first two years are outlined in detail in the Announcement of the School of Business and Public Administration. This plan should be followed by the student who spends his freshman and sophomore years in another institution as well as by the student who enrolls as a freshman in the University of Missouri.

Advanced Standing

The student who has gained more than 60 hours of credit with a grade average of C or above before entering the School of Business and Public Administration may be given credit for such courses in excess of the 60 hours required for admission as are acceptable in the curriculum in which he is enrolled.

Courses of Instruction

Instruction is offered in the fields of accounting, economics, finance, government, business law, industrial management, marketing, public administration, statistics, transportation, real estate, and insurance. The courses are described principally under the Departments of Accounting and Statistics, Economics and Business, and Political Science in the Announcement of the School of Business and Public Administration.

Curricula

Ten curricula are offered for the purpose of guiding students in their preparation for special fields of business and public administration. In order to meet the needs and purposes of the individual student, provision is made for special curricula, and modification of any curriculum may be made with the approval of the student's adviser and the dean. These curricula are outlined in detail in the Announcement of the School of Business and Public Administration.

Enrollment Regulations and Residence Requirements

The normal program carried by a student in this division is 16 semester hours. However, a student with a grade average of C or above may be granted permission by his adviser to enroll for more than 16 hours. A student on scholastic probation may not enroll for more than 14 hours. No

student may carry less than 12 hours without special permission of the dean.

Ordinarily a candidate for a degree will have been registered in this School for two years, but a student with advanced standing who meets all other requirements may receive a degree if registered in this School throughout his senior year.

Any student who is deficient to the extent of no more than 3 hours of credit or 6 hours of unbalanced D grades may be permitted to complete the requirements for a degree by correspondence courses in this University when acceptable courses are available, or by courses approved in advance in residence in another university.

Requirements for Graduation

The requirements for graduation are the completion of any curriculum of this School and a minimum of 120 credit hours with a grade average of C or above. Sixty of the 120 hours must be earned in the required courses and acceptable electives of the student's curriculum. Points are awarded on the following basis: for each hour of A grade, 4 points; B grade, 3 points, C grade, 2 points, D grade, 1 point.

Degrees

The degree of Bachelor of Science in Business Administration is conferred upon those students who have completed the requirements of one of the 9 curricula in business administration. The degree of Bachelor of Science in Public Administration is conferred upon those who have completed the requirements of the curriculum in Public Administration.

Graduate Study

Graduate instruction in accounting, business administration, economics, political science, public administration, and statistics is under the supervision of the Graduate School of the University. The courses of instruction available to graduate students are described in both the Announcement of the School of Business and Public Administration and that of the Graduate School.

Placement Service

The School of Business and Public Administration maintains a Placement Service which makes it possible for personnel representatives of business establishments and governmental agencies to interview prospective graduates of this School and of the College of Arts and Science.

Insofar as its facilities permit, the Placement Office informs alumni of employment opportunities and prospective openings in response to specific requests received by the School.

Division of Continuing Education

The Division of Continuing Education renders a broad service to communities, organizations, and individuals of the state. This division offers the following services through which over 30,000 Missourians were served educationally last year:

- Correspondence courses for college and high school credit
- Extension courses for college credit
- Extension courses for noncredit
- Technical institutes for industrial personnel
- Educational conferences
- Short courses
- Visual education department services
- Speech clinics
- Statewide itinerant fireman training
- Dramatic play service
- Community development information
- Law enforcement training

Correspondence courses. Correspondence courses on the college level are available in many subjects and areas. All college credit courses given by correspondence count for regular credit in the University and for approved credit on state certificates. Courses are available on both the graduate and undergraduate levels. No credit earned by correspondence can be applied toward a doctor's degree. The correspondence course enrollment fee is \$6.00 per credit hour; thus a course offered for 3 hours of credit will cost \$18.00, plus postage.

High school courses may be taken by correspondence and may count for entrance credit to the University. The fee is \$12.50 per unit of credit, plus postage, for individual students.

Because of the shortage of teachers, this division has made available a number of supervised correspondence courses in such subjects as English, French, German, Latin, mathematics, agriculture, botany, general science, physics, social studies, geography, Spanish, and commercial subjects on the high school level. Under the supervised correspondence study plan, the fee is \$10.00 plus postage, per unit, for each student if ten or more students are enrolled in the same course from the same school.

Extension centers and classes. The Division of Continuing Education offers a wide variety of educational opportunities off the campus through extension centers or extension classes. Both credit and noncredit work is available. Students enrolling in an extension class for college credit are charged a fee of \$15.00 per credit hour except in special programs. The fees charged for the noncredit courses are determined according to the course desired.

Credit for extension work. No credit received in an extension class may be applied toward a degree beyond the master's at the University of Missouri. Eight hours of credit earned off the campus is the maximum which will be applied toward the master's degree at the University of Missouri. Students applying for graduate credit in extension courses must obtain approval of the chairman of the department concerned and, in some cases, the Dean of the Graduate School if used at the University of Missouri.

Visual education department. The visual education department has available over 4,000 16mm. sound films. These films are especially suitable for classroom use. The film strip library contains over 200 strips on various subjects. Schools, colleges, churches, farmers' clubs, and other groups may secure the use of these facilities upon payment of a small rental fee.

For information and special bulletins regarding any of the above services, address Director, Division of Continuing Education, 23 Jesse Hall.

College of Education

The College of Education is a professional school for teacher education and other school work specializations at both the graduate and undergraduate levels. The College provides services to the public schools of the state by research on educational problems, studies, surveys and consultations, inservice training, and by providing advisers, consultants, lecturers and workshop participants for local lay and professional groups.

One of the fundamental functions of the University as a whole since its organization in 1839 has been the training of school teachers. As the programs and curricula became more highly specialized through the years, a separate Division of Education was created in 1868 charged with the specific responsibility for the preparation of teachers for the schools of Missouri.

The undergraduate work in the College of Education consists of the freshman, sophomore, junior and senior years; the graduate work in education is organized as a department in the Graduate School.

The College of Education is a member of the American Association of Colleges for Teacher Education and all of its programs are fully accredited by the National Council for Accreditation of Teacher Education.

Purposes

The present objectives of teacher education in the College of Education are based on the belief that teaching is a profession, and that the individual student needs a well-designed and well-balanced program of general and professional education.

The opportunities available to students include a complete offering of preservice preparation for men and women who plan to make a career of teaching, school administration, school supervision, or other specialized school work; a program for the continuation of training for those teachers now in service; an appropriate foundation for graduate study and research in the various areas of education; and individual student guidance and professional direction. The graduate department of education provides comprehensive opportunities for advanced study.

In addition to these academic programs, the College of Education extends certain assistance in the nature of research, studies, in-service training, surveys, and consultation to the public schools of the state

Facilities

The classrooms, laboratories, and libraries of the entire University are made available to students in the College of Education. Specialists in other departments and divisions of the University give instruction in all subject matter areas leading to teaching majors in those fields in which elementary and high school teachers work.

The library in education is housed in the General Library. The education collection has been carefully developed to make available significant materials for carrying forward graduate and research programs in education. This library is supplemented by contributions to the Irion Library in Education, a special collection established through an endowment fund created by Phi Delta Kappa. The Education Reading Room in the General Library is air-conditioned.

Laboratory School

This school attempts to provide an adequate instructional program from the kindergarten through the senior high school. The program is designed to make possible a study of the growth and development of children, and their progress by means of appropriate instruction. The program implies also, study, evaluation, and adaptation of the results of research as well as the best practices in current American education. The operation of the school affords opportunities for demonstration teaching, visitation by interested persons, research, and consultation with reference to educational problems. The school also provides opportunities for teacher education in those fields which include student teaching and apprenticeship in school situations as a basic part of teacher education. Additional facilities for student teaching are used in the public schools.

Admission

All communications regarding entrance should be addressed to the Director of Admissions, 130 Jesse Hall. Details concerning admission are contained in the chapter on Admission.

Freshmen. For admission to the College of Education a minimum of 15 accredited high school units, exclusive of physical education and military science, must be presented. Three units must be in English and a minimum of 8 additional units may be selected from the fields of mathematics, social studies, fine arts, science, and foreign language. The remainder of the 15 units may be selected from any other courses accepted by an accredited high school for its diploma, with the exception of physical education and military science.

Students admitted to the University under provisions of Plans B, C, and D explained in the chapter on Admission, may be admitted to the College of Education.

Advanced Standing. Credit in the form of advanced standing may be allowed for work satisfactorily completed in another college or university of recognized standing insofar as such work satisfies the particular requirements of the College of Education. Advanced standing for the work of the senior year will not be granted.

Curricula

General education requirements. All students are expected to complete the general education requirements. Freshmen are required to take a course, Introduction to Education, for orientation and guidance purposes.

Appropriate tests in the basic skills such as English, speech, etc., will be given to freshmen, and students are scheduled in remedial sections when necessary.

Students are required to complete English, 9 hours; social studies, 10 hours, including American History and American Government; science, 10 hours, including one course in biological science and one course in geology or other physical science; mathematics, 3 hours (students who present 3 units of high school mathematics may be excused from the mathematics requirement); fine arts, 5 hours; and physical education and ROTC. Preventive Medicine or School Hygiene, 2 hours, is also required but may be taken in any year.

Adjustments may be made in the general education requirements of the first two years for students enrolled in rural education or in vocational education curricula.

Majors and minors. Students preparing for secondary school teaching are required to have an academic major and also a minor. Exception in the case of the minor may be made for students enrolling in specialized curricula such as physical education, vocational home economics, industrial education, music, art, and commercial education.

Students preparing for elementary school teaching are required to have broad training in a number of subject matter areas in addition to a major in elementary education. A concentration of at least 15 hours in a subject matter area is required as a minor. Programs in elementary education should be planned with the close supervision of an adviser.

Complete information concerning major and minor requirements is contained in the Announcement of the College of Education.

Curriculum in Rural Education

The curriculum in rural education is a special two-year program designed to meet the needs of students in elementary education who plan to teach in the rural sections of the state. This includes village and small town schools. Students may enroll in this curriculum as freshmen.

The program includes subject matter courses in English, science, social studies, art activities, music, and children's literature.

Thirteen hours of this curriculum are taught in the College of Agriculture in courses in agriculture, home economics, and rural sociology. This section of the program is planned to acquaint the student with significant problems of rural life and conditions as they affect education.

The curriculum includes appropriate courses in professional education necessary to qualify the prospective teacher for the two-year certificate issued by the State Department of Education for teaching in the elementary schools.

Students who complete the curriculum in rural education, and who may desire to continue their education later, are eligible to begin the work of the junior year in the College of Education without loss of credit.

Special Education Programs

Programs are available for preparing teachers in the fields of the orthopedically handicapped, the mentally retarded, the mentally superior, and speech correction. Prospective teachers are required to meet the general and professional educational requirements of all teachers in either the elementary or secondary field.

Secretarial Training

This program is a two-year curriculum which provides a general education background of regular University work in addition to the necessary secretarial training. A Certificate of Secretarial Proficiency is issued to qualified students upon completion of the two-year program, which consists of 60 semester hours of approved work. Students may use the credit earned in this program as a part of a four-year curriculum leading to a B.S. degree.

Secondary School Teachers

Required professional courses. The student is expected to complete the following professional courses in the field of education in addition to Introduction to Education:

A 102, Educational Psychology

B 125, History of American Education

(Prerequisite, a course in American History)

- D 110, Technique of Secondary School Teaching
(Prerequisite A 102)
- D 140, Secondary School Administration for Teachers
(Prerequisite, A 102)
- A course in teaching of subject specialization
(Prerequisites, A 102)
- D 150, Student Teaching in the Secondary School
(Prerequisites, A 102 and D 110)

This total of 18 hours required work in professional education courses may be supplemented under the direction of an adviser.

Other general requirements. A student who enters with advanced standing must complete at least one course, with not less than 3 hours of credit, in the subject of specialization. This course must be selected under the direction of his adviser.

Secondary school teaching majors and minors. A student preparing to teach in secondary school should select major and minor teaching fields with proper advisement. The student must meet the major and minor requirements in his chosen fields of specialization. Curricula are available to prepare students to teach in the following secondary school teaching areas: agriculture, art, biology, chemistry, commercial subjects, English, French, general science, geography, German, home economics, industrial arts, Latin, library science, mathematics, music, physical education, physics, physiology and hygiene, social studies, Spanish, speech, speech correction, vocational agriculture, vocational home economics, and trades and industries.

Elementary School Teachers

In addition to the general education courses required for all teachers, majors in elementary education are required to complete the following professional education courses:

- A 102, Educational Psychology
- B 125, History of American Education
(Prerequisite, a course in American History)
- E 120, Elementary School Organization and Management
- E 121, Technique of Teaching in Elementary Schools
(Prerequisite, A 120)
- E 151, Student Teaching in the Elementary School
(Prerequisites A 102, E 121)

The following additional courses for an elementary education major are also required:

- J 129, Elementary School Music
- E 118, Art Activities in the Kindergarten and Primary Grades, or
- E 119, Art Activities in the Intermediate Grades

- E 96, Children's Literature
 - E 99, Arithmetic for Teachers, or
 - E 367, Problems of Teaching Arithmetic in the Elementary School
 - H 127, Physical Education Activities for the Elementary School;
 - E 325, Teaching Reading in the Elementary School;
- One course in Geography.

Elementary education majors will be required to complete a minor of at least 15 hours in some academic field. The remainder of the program may be elective with the approval of the adviser.

Requirements for Graduation

In order to secure the degree Bachelor of Science in Education (B.S. in Ed.), the candidate must fulfill the following requirements:

He must be regularly admitted to the College of Education.

He must complete the professional courses in education listed in the various curricula and also the other courses required in the curriculum of specialization in addition to the general education requirements for all teachers.

He must establish satisfactory proficiency in English. This requirement may be met in one of the following ways:

- a. By making a satisfactory score on the Freshman English Placement Tests.
- b. By making a grade of "C" or better in Composition 2.
- c. By being admitted to Special Composition 3 and making a grade of "C" or better.
- d. By making a satisfactory score on an English Proficiency examination.
- e. By transfer from another division of the University of Missouri in which the requirement of proficiency in English had been satisfied.

He must have completed 120 credit hours of work acceptable toward the degree of Bachelor of Science in Education. Credit in the required courses in physical education and ROTC in the freshman and sophomore years is not included in the 120 hours.

He must complete a total of two hundred and forty credit points. Each hour of credit earned in the University of Missouri is valued in points on the basis of grades earned as follows: A, four points; B, three points; C, two points; D, one point. Points will be allowed for credits earned in other institutions and accepted in the College of Education, commensurate with the quality of work done, except that in no case may the number of points awarded exceed two times the number of hours awarded.

He must be recommended for the degree by the faculty of the College of Education.

He must be free from gross physical defects which would make his success as a teacher unlikely.

He must meet the residence requirement.

Residence Requirement

A student must spend his senior year in the University of Missouri in order to obtain the degree of Bachelor of Science in Education. Students entering with advanced standing must complete at least three courses in education to fulfill the requirements for the degree and must complete at least one course with not less than 3 hours of credit in the subject of specialization. Work done in the summer sessions of the University will be counted as work in residence.

Degrees and Certificates

The College of Education confers one undergraduate degree, Bachelor of Science in Education (B.S. in Ed.).

The College of Education is authorized by the Legislature of Missouri to issue certificates, valid for life, to students who have completed the requirements for the degree of Bachelor of Science in Education and who are recommended by the faculty of the College of Education as being qualified to teach in the public schools of the state.

The course work necessary to complete the requirements for certificates issued by the State Department of Education of Missouri may also be completed in the College of Education.

Graduate Work

Graduate work in education leads to the following degrees: Master of Education and Doctor of Education; Master of Arts and Doctor of Philosophy. For specific information about graduate programs in education, the student is referred to the Announcement of the Graduate School.

Master of Education degree. To be admitted to candidacy for the degree of Master of Education students must have completed not less than 15 hours of work in undergraduate courses in education in an approved institution. A thesis is not required for the degree Master of Education, but all candidates must take a four-hour written comprehensive examination after the required program of course work has been completed.

Master of Arts with a major in Education degree. To be admitted to candidacy for the degree of Master of Arts with a major in Education,

students must have completed at least 15 hours of professional education courses in an approved institution. Candidates will be required to have a minimum preparation in research techniques which will include a course in elementary educational statistics and a course in methods of educational research. A thesis will be required of all candidates for this degree.

Doctor of Education degree. The degree of Doctor of Education is especially intended to meet the professional needs of the candidate. The program of studies will be planned with this objective in view.

Doctor of Philosophy with a major in Education degree. The degree of Doctor of Philosophy is a research degree, and the dissertation offered in partial fulfillment of the requirements must give evidence of mastery of research methods in the field of education.

Major adviser. Graduate students in education should select the particular area in which they plan to do specialized work. They should then consult the faculty adviser in the field of their major interest, and with the adviser, make out a complete program of studies for the desired degree.

Teacher Placement

A professional Teacher Placement Service is maintained to assist teachers in securing positions. This service is available to recent graduates of the University, to all former students who have attended the University a minimum of one summer session, and to former graduates who desire assistance in securing positions. A small fee is charged for one year's service. Correspondence concerning this service should be addressed to Director, Teacher Placement, 102 Hill Hall.

For further information concerning the College of Education, address the Dean, College of Education, 107 Hill Hall.

College of Engineering

The College of Engineering was established in 1907. As early as 1849 courses were offered in engineering and a department of civil and military engineering offering the degree of Civil Engineering was formed in 1859. The engineering department became a division in 1877 when it was separated from the College of Agriculture, but in 1893 it was again placed under the College of Agriculture until it became an independent college. Agricultural Engineering was organized as a department in 1917 and that of Industrial Engineering in 1958.

The undergraduate program in engineering is designed to provide a proper foundation for graduate study leading to research and development work, for professional practice in a chosen field of engineering, and for wide business and management opportunities in manufacturing, sales, construction of public works, public utilities, and federal and state engineering enterprises.

The Engineering Experiment Station was established in 1909. Its purpose is to organize those members of the engineering faculty and students particularly interested in research as a staff to investigate problems of scientific or engineering interest. The results of such investigations are published periodically in technical journals or in bulletins.

Buildings

The laboratories, recitation and design rooms, and offices of all of the departments except Agricultural Engineering are housed in three interconnected buildings and the new Electrical Engineering Building. The Agricultural Engineering facilities are located on the agricultural campus.

Admission

All communications regarding entrance should be addressed to the Director of Admissions, 130 Jesse Hall. Details concerning admission are contained in the chapter on admission.

Freshmen. The requirements for regular admission to the College must include at least 3 units of English, 3 of mathematics, and 1 in a science and laboratory. The 3 units of mathematics must be distributed

as follows: $1\frac{1}{2}$ units algebra, 1 unit of plane geometry, and $\frac{1}{2}$ unit of solid geometry or trigonometry (solid geometry is recommended).

Students who have not taken solid geometry in high school will not be required to take the course in college provided they offer $1\frac{1}{2}$ units of algebra, 1 unit of plane geometry, and $\frac{1}{2}$ unit of trigonometry; or 2 units of algebra and 1 unit of plane geometry. Students who offer fewer than the 3 units of mathematics may be admitted to the College of Engineering provisionally by special permission from the dean. Deficiencies in high school mathematics must be removed by enrolling in appropriate courses in the freshman year. Credits so earned will not count toward a degree in engineering. Students who offer 4 units of mathematics (2 units of algebra, 1 unit of plane geometry, $\frac{1}{2}$ unit of solid geometry, and $\frac{1}{2}$ unit of trigonometry) may, at their request, omit trigonometry and algebra in college and start the mathematics sequence with analytic geometry and Calculus 1 (Math. 80). Those who omit college algebra and trigonometry will take the equivalent credit in other courses.

Admission from Junior Colleges. The College of Engineering has a working agreement with many junior colleges whereby the work undertaken during the first year and sometimes in the second year may be wholly accepted by the College of Engineering. The student is advised to consult the engineering adviser in the junior college at the time he registers to insure that his program is satisfactory. A summer session is provided at the University for those entering the College of Engineering with deficiencies from a junior college. The Dean of the College of Engineering at the University will answer any inquiries concerning the course of study which should be undertaken in the junior college.

The amount of credit that may be transferred from a junior college or other non-engineering four-year college toward an engineering degree usually may not exceed 68 or 70 hours.

Advanced Standing Program

Mathematics

Two examinations are offered: Algebra (3 credit hours) and Trigonometry (2 credit hours). A student may take either or both of these examinations. They are given at the beginning of each semester and summer session. Applications to take them are made to the Department of Mathematics, University of Missouri, and must be filed before the first day of classes for the entering students.

Engineering Drawing

The Department of Mechanical Engineering offers an examination in Engineering Drawing for 3 credit hours which may be applied toward

degrees in the College of Engineering. The examination is offered at the beginning of each semester and summer session. Applications are made to the Office of the Dean, College of Engineering, University of Missouri, and must be on file before the first day of classes for the entering student.

Rules Governing Enrollment

Students may not enroll for more credit hours than shown in the curricula except with the permission of the dean.

Students who do not make satisfactory grades in their courses or who do not attend their classes regularly are subject to dismissal by the dean.

The Army, Navy, and the Air Force cooperate with the College of Engineering in offering both basic and advanced reserve officer training programs.

CURRICULA

Agricultural Engineering

The Department of Agricultural Engineering is administered jointly by the Dean of the College of Agriculture and the Dean of the College of Engineering. The field of agricultural engineering deals with the applications of engineering to the industry of agriculture. The main divisions are:

Farm Power and Machinery dealing with farm tractors, machines and implements, and the mechanizations of agricultural production.

Farm Electrification dealing with the uses of electricity on the farm. This branch may be considered a subdivision of Farm Power and Machinery.

Farm Structures dealing with all buildings and building equipment used on farms, including animal shelters, storage buildings, and the farm home and its modernization.

Soil and Water Control and Conservation consisting of irrigation, drainage, water management, and soil erosion control.

The agricultural engineering curriculum is accredited by the Engineer's Council for Professional Development.

Chemical Engineering

The chemical engineering curriculum gives the student broad basic training in chemical engineering and furnishes a foundation upon which he can make a success in the industrial world. The very active and prosperous fields of petroleum refining, chemicals, plastics, synthetic textiles,

foods, and the like employ most of the graduating chemical engineers. Many professional assignments are in production, but openings in management, engineering design, research and development, patent studies, and technical sales are increasing as the chemical engineers breadth and versatility grow.

The curriculum in chemical engineering is accredited by the Engineers' Council for Professional Development.

Civil Engineering

The curriculum in civil engineering provides training for technical, commercial, or administrative work in connection with oil companies, power companies, railways, highways, airways, transmission lines, bridges, buildings, wharves and docks, tunnels, dams, other structures, water supply, sewerage, sanitation, public health, hydraulic power, river and harbor improvements, flood control, irrigation, drainage, waterways, municipal engineering, aircraft production, contracting, construction, and the like.

Most civil engineers satisfactorily fill corporate positions in technical engineering, management, and marketing; find work with city, county, state, and federal governments; or enter teaching, research, or consulting fields.

The curriculum in civil engineering is accredited by the Engineers' Council for Professional Development.

Electrical Engineering

The field of electrical engineering, concerned with utilization of electrical energy, has generally differentiated branches, power and communications. It is the province of the power field to produce and transmit electrical energy in large amounts and to provide means for rendering it economically useful in industry, in the home, and in the community. The field of communications is primarily concerned with periodic phenomena involving the enormous range of frequencies that occur. The science of electronics finds innumerable applications in both areas.

The four-year curriculum in electrical engineering is broadly fundamental. The first two years are devoted largely to the study of mathematics, physics, chemistry, English, mechanical drawing, and machine processes. This is followed by the foundation courses of electricity and magnetism, and courses covering the basic theory of electrical circuits, electronics, and machinery. The sequence then branches into the more specialized courses covering the communications and power fields.

The curriculum in electrical engineering is accredited by the Engineers' Council for Professional Development.

Industrial Engineering

Industrial engineering is concerned with the design, improvement, and installation of integrated systems of men, materials and equipment.

The industrial engineering curriculum provides a sound foundation of courses in basic science, mathematics, and engineering science, plus specialized work in industrial engineering disciplines, such as operations research, factory layout, computer systems, time and motion study, quality control, methods improvement, industrial organization, and engineering personnel practice. The curriculum is designed to give the student sound training upon which he can build a successful professional career.

Mechanical Engineering

Mechanical Engineering offers a wide range of diversified opportunities centered around the design and production of industrial and domestic manufactured products, the generation of power, the design and production of engines and equipment, and the management and administration of industrial and governmental enterprises.

The curriculum in mechanical engineering provides a firm foundation in the basic sciences, mathematics, chemistry, and physics, and the basic engineering courses in mechanical drawing, technical materials, and production methods. These basic studies are followed by advanced courses in heat engines, thermodynamics, metallurgy, kinematics, and machine design.

The curriculum in mechanical engineering is fully accredited by the Engineers' Council for Professional Development.

COMBINED CURRICULA

Five-Year Liberal Arts-Engineering Program

The College of Engineering and the College of Arts and Science offer jointly a five-year program leading simultaneously to the Bachelor of Science degree in the College of Engineering and the Bachelor of Arts degree in the College of Arts and Science. The plan is designed to give a student a thorough education in both liberal arts and engineering. Although most students will major in a science or mathematics, the plan provides for broad educational experiences in the humanities and social sciences.

Students desiring to pursue a five-year combined program must enroll in both the College of Arts and Science and the College of Engineering.

Additional information about the program may be obtained from the Dean of the College of Arts and Science, or the Dean of the College of Engineering.

Three-Two Liberal Arts-Engineering Program

The College of Engineering offers a cooperative three-two program with many other colleges in the State of Missouri. In addition to the three years of liberal arts study, at least two more years of work are required on the Columbia campus. Upon satisfactory completion of all requirements the student receives an AB degree from the first college and a BS in Engineering from the University. Colleges having a cooperative program with the University are:

Central College, Fayette
Central Missouri State College, Warrensburg
Culver-Stockton College, Canton
Missouri Valley College, Marshall
Northwest Missouri State College, Maryville
Northeast Missouri State Teachers College, Kirksville
Tarkio College, Tarkio
William Jewell College, Liberty

Other Combined Five-Year Programs

The School of Business and Public Administration and the College of Engineering offer jointly a combined program leading simultaneously to the Bachelor of Science degree in Business Administration and the Bachelor of Science degree in Industrial Engineering. The plan is designed to give a student a thorough education in both business administration and engineering.

Students desiring to pursue the combined program must enroll in the College of Engineering during the first two years and must then enroll in both the School of Business and Public Administration and the College of Engineering during the remaining time.

Additional information about the combined program may be obtained from the Dean of the School of Business and Public Administration or the Dean of the College of Engineering.

The College of Agriculture and the College of Engineering offer a combined program leading simultaneously to the Bachelor of Science degree in Agriculture and the Bachelor of Science degree in Agricultural Engineering. The program is designed to give a student a thorough knowledge in both agriculture and engineering.

Students desiring to pursue this combined program must be enrolled in both divisions. As a standard practice, the student's adviser is in the agricultural engineering department.

Additional information about this program may be obtained by writing to the dean of either division.

Graduation Requirements—Degrees

The degree of Bachelor of Science with designation of the branch of engineering is awarded in each of the engineering departments. Each curriculum requires a total of 138 semester credit hours exclusive of the required courses in ROTC and physical education. An average grade of C, i.e. a grade point average of not less than 2 for all courses, is required for graduation. Grade marks and the number of credit points allowed for each hour of that respective grade is as follows: Grade A, superior work, 4 credit points; grade B, above average, 3 credit points; grade C, average, 2 credit points; grade D, below average, 1 credit point; grade F, failure, 0 credit points.

Requirement in American History, Institutions, and National and State Constitutions. See chapter on General Regulations and Requirements.

Required ROTC and Physical Education. See chapter on General Regulations and Requirements.

Graduate Study

Graduate courses leading to advanced degrees are offered in the several branches of engineering. Facilities for graduate study at the University are excellent and classes are small. Interested persons should write to the Dean of the College of Engineering for information on assistantships available and for an Announcement of the Graduate School.

Engineers Week

Engineers Week, which originated in 1903 at the University of Missouri, is held annually during the week including St. Patrick's Day, March 17. Activities include laboratory exhibits, the Engineers Ball and Banquet, alumni reunion, and the ceremony of kissing the "Blarney Stone" by those honored with knighthood. Medals are awarded for distinguished service in engineering. This celebration now has its counterpart at most engineering colleges in the United States.

For further information concerning the College of Engineering, address Office of the Dean, College of Engineering, 103 Engineering.

Graduate School

The University of Missouri offers graduate instruction in agriculture, biological and physical sciences, education, engineering, fine arts, home economics, literature and philosophy, journalism, mathematics, modern and classical languages, social sciences, and social work. Information concerning course offerings of the various departments will be found in the bulletin *Announcement of Courses*. The faculty of the Graduate School has charge of all graduate work in the University.

Facilities

Facilities for graduate work consist largely of library collections in the humanities and social sciences and equipment and services in the natural sciences. The library, which has more than 825,000 volumes, is one of the larger collections among state universities. It is particularly strong in the Western Historical Manuscripts Collection. Well equipped laboratories for the conduct of research in the natural sciences are maintained in the College of Arts and Science, Medicine, Agriculture, and Engineering.

The University maintains a Computer Research Center with a Datatron 205 Digital Computer and a full time staff. An analytical laboratory is operated by the College of Agriculture but supports research in all divisions of the University. A spectroscopist has unusually fine equipment for analytical work using ultraviolet, visible and infrared. The machine shop is equipped exclusively for designing and building instruments for research purposes and likewise serves the entire University. A skilled glassblower, an electronics technician, and trained mechanics are employed to build, service and repair scientific equipment.

The Geology Department maintains an excellent summer camp at Lander, Wyoming, a richly varied area for geological research. In the field of Biology, the University has a 160-acre plot of virgin prairie 19 miles east of the campus which has never been plowed making possible ecological studies of conditions existing in the native prairie of the mid-west.

Other facilities include the Engineering Experiment Station, the vast farm acreages available for all phases of agricultural research, the psychological laboratories, computation services and equipment, a daily news-

paper with leased wire services, television station, wildlife areas, the Medical Center, climatology laboratories, and archaeological excavations.

A number of outstanding library collections include several which are the most varied and nearly complete in existence.

Admission

Students are admitted to the Graduate School by the Director of Admissions, from whom applications may be obtained.

Graduates of colleges or universities accredited by the Missouri College Union, the North Central Association of Colleges and Secondary Schools, or other similar accrediting associations are admitted to the Graduate School. A student applying for admission is required to submit a transcript of his undergraduate record, including a statement of his baccalaureate degree, and of any graduate work completed.

Admission to the Graduate School does not necessarily imply admission to candidacy for an advanced degree. Some students find it desirable to take graduate work without planning for an advanced degree. Such students are welcomed to the Graduate School, especially if doing work of high quality, even though their advanced studies may not constitute an integrated program.

A student interested in doing research in a laboratory science or research leading to the Ph.D. degree should write the chairman of the department in which he wishes to work in order that he may be advised as to whether or not facilities are available.

Dual Enrollment

Seniors, who at the beginning of any semester have a graduation requirement of 15 hours or less, may be permitted, with the approval of the appropriate deans, to register simultaneously in the Graduate School for courses sufficient to make a full program. Such dual enrollment must be completed within one month after the beginning of the semester. The student is advised to secure faculty approval for the courses which are to receive graduate credit in order to be assured that they will be included in a program for an advanced degree. Appropriate forms for this program are obtained from the graduate office and the completed forms filed with the Dean of the Graduate School.

All courses offered by the University are open to graduate students. Courses above 200 carry graduate credit if outside the major field. Courses above 300 carry graduate credit for all students. Courses above 400 are primarily for graduate students.

Degrees

A student becomes a candidate for an advanced degree after he has demonstrated that he is capable of mastering definitely assigned academic tasks and has the ability to organize his knowledge and develop discriminating judgment. His work is planned in consultation with a major adviser and is usually in the same field in which he has completed an undergraduate major. If he has not completed a satisfactory undergraduate major on entering the Graduate School, he will be expected to take enough undergraduate work to satisfy this requirement in addition to the requirements for the advanced degree.

The Announcement of the Graduate School gives details in connection with degree requirements. The work must be advanced in nature and the quality of the work must be high. A student should not expect to be a candidate for an advanced degree unless his undergraduate work is above average. At the conclusion of the work for an advanced degree an examination is always given, written or oral, or both.

The University of Missouri offers six advanced degrees. The master's degrees require approximately one year beyond the bachelor's degree. This year is devoted to course work in the student's specialized field. Frequently a dissertation is required involving an original piece of research. The four master's degrees differ considerably in their objectives.

The degree of Master of Arts (A.M.) is designed to train the student for more advanced work. It is sometimes considered the first step toward the degree of Doctor of Philosophy. Successful completion of the work for this degree, which usually involves a dissertation, indicates that the student has obtained considerable mastery of a given subject matter field and also has some aptitude for research.

The degree of Master of Science (M.S.) is similar in objective to the degree of Master of Arts, the difference being in the subject matter chosen. Most programs in science, including engineering, lead to this degree.

The Master of Education (M.Ed.) degree is designed for teachers or prospective teachers who have a definite vocational aim. No dissertation is required and the degree of specialization may not be great. Broad training is possible, including work in education and in one or more subject matter fields. The degree is designed to fit the needs of a particular student in his own teaching.

The Master of Science for Teachers (MST) degree is designed to strengthen the subject matter competence of teachers in the sciences commonly taught in high schools. The degree is offered in the fields of biological sciences, mathematics, and the physical sciences.

Two doctor's degrees are conferred by the University of Missouri. The degree of Doctor of Philosophy (Ph.D.) is primarily a research degree. A student who has completed the degree of Master of Arts or Master of Science, normally devotes two or more years fulfilling the requirements for the Degree of Doctor of Philosophy. A large portion of his time is spent on a major research problem. A reading knowledge of French and German is required. A student who has completed the program for the degree of Doctor of Philosophy is qualified to undertake original research either in a university or in industry, and has the necessary background for college or university teaching.

The degree of Doctor of Education (Ed.D.) has objectives similar to those of the Master of Education degree. It is a professional degree in the same sense as that in which the term is used for a degree in medicine or law. There are no foreign language requirements, and less emphasis is placed upon research although a dissertation is required. A student is expected to master the fundamentals of statistics and to use them in his dissertation. This degree is primarily for teachers and administrators in secondary schools.

The *Announcement of the Graduate School* contains information on entrance requirements, and rules and regulations of the Graduate School. Address the Dean of the Graduate School, 205 Jesse Hall.

School of Journalism

The world's first School of Journalism began instruction leading to a degree at the University of Missouri in 1908.

The Missouri Plan of education for journalism comprises two parts. First is the broad background of liberal arts and sciences, necessary not only to the journalist as such but to the educated man or woman. Second is a knowledge of journalistic theory and techniques and skill in their practice. The objective, through classroom instruction and faculty-supervised training on a regular daily newspaper, a commercial radio station, and a commercial television station, is to lead the student to integrate the chief fields of knowledge with instruction and training in the practice of the communications arts.

Facilities

The journalism unit consists of Jay H. Neff Hall and Walter Williams Hall which are connected by an archway and tower. They constitute a modern, well-equipped newspaper and educational plant.

All news, editorial, feature, photographic and advertising work on the *Columbia Missourian*, a daily newspaper with general circulation throughout Columbia and Boone County, is done by students in journalism under direct supervision of faculty members. Thus laboratory practice is combined with work in the classrooms, and students in the School of Journalism combine their broad liberal arts education with journalistic training which is truly professional.

At KOMU-TV, the University's commercial television station, qualified students are offered instruction, training, and experience in newswriting and processing, newsreel photography, programming, television advertising, and station management. Instruction is given in processing and daily broadcasting of local and leased-wire service news through the facilities of radio station KFRU.

The Frank Lee Martin Memorial Library contains more than 15,000 volumes relating to journalism and advertising and receives about 200 newspapers and 200 periodicals from all over the world. In addition, some 20,000 volumes relating to journalism are housed in the University General Library.

Admission

All communications regarding entrance should be addressed to the Director of Admissions, 130 Jesse Hall. Details concerning admission are contained in the chapter on Admission.

All students wishing to enter the School of Journalism must pass the English Proficiency Examination for students in journalism before they are admitted. The examination is given each semester and in the summer session and also not later than two days before each registration period. A student may take the examination during the term immediately preceding his registration in journalism. He must make application to the Director of Admissions 30 days before the end of that term and will be notified of the testing date if eligible. A student who has completed the course English 60, Exposition, in the University of Missouri and has passed the course with a grade of C or better is not required to take the English Proficiency Examination.

Students admitted to the School of Journalism must present a grade average of C. Credit presented from an institution other than the University of Missouri must meet this requirement in terms of grade marks of that institution. Students are not admitted with a condition.

It is expected that the student have a working knowledge of typewriting before entering the School.

The School's students are made up of the following classes:

A. Students who have completed 60 credit hours (exclusive of the required work in physical education and ROTC) in the College of Arts and Science at the University of Missouri, or the equivalent. In the 60 hours of credit for admission, the following are specific requirements:

1. Ten hours in one foreign language, plus one additional course in the reading of the chosen language. The reading course may be taken after admission to the School, in which case it will not be counted in the 20 hours of upperclass arts and science credit required for the Bachelor of Journalism degree. If the student presents for admission 2 units in a single foreign language and continues with that language in college, he will be excused from the first 5 hours of this requirement. If he presents for admission 3 units in one foreign language and continues with the language in college, or has done 2 units so well that he can take a reading course in this language, he will be excused from the first 10 hours of the requirement. If he presents for admission 4 units in one foreign language, and can pass an achievement test on the work of the reading course, he will be excused from the entire requirement.

2. One semester of either physical science (chemistry, geology, physics), or biological science (botany, general experimental psychology, zoology), including laboratory (with a minimum of 4 hours credit).

3. One semester of general economics with a minimum of 3 hours credit).

4. One semester of American government, or the equivalent (with a minimum of 3 hours of credit).

5. Six hours of credit in English literature in addition to the 6 hours of composition. A student who is required to complete but one semester's work in composition shall be required to complete an additional course, either narration or exposition, in order to satisfy the requirement.

While not required for admission, one or more of the following courses is urgently advised—general sociology, elementary accounting, principles of marketing, general psychology, and introduction to philosophy.

An approved examination demonstrating achievement on the level of any of the five specific requirements for entrance will be accepted in lieu of course credits. Satisfaction of any requirements on this basis will not excuse any student from any part of the total credit requirement.

Students will normally complete the requirements for the Bachelor of Journalism degree in two academic years. Students who enter with advanced standing may reduce this time, but the sequence of courses makes it necessary for every student to spread his professional courses over at least three semesters, sometime adding an intersession.

Students who are planning to enter the University of Missouri School of Journalism will find it advantageous to enter the University as freshmen. Often the transfer of credits from another university or college results in loss of time and difficulty in schedules.

B. Students from other divisions of the University, to whom certain courses in journalism are open.

C. Students who have been graduated with an acceptable bachelor's degree from recognized colleges or universities, who are admitted without reference to the specific requirements. A student so admitted is required, however, to include in his program such of the usual preliminary courses as may be considered necessary to acquire a satisfactory background for work in the school, including History 251 and not less than 3 additional hours of upperclass history. He must pass, before admission, the English Proficiency Examination unless he has previously passed the course English 60, Exposition, in the University of Missouri, with a grade of C or better.

Curricula

Students in the School of Journalism may specialize in news and editorial work, advertising, weekly and small daily publishing, photo-journalism, agricultural journalism, home economics journalism, radio-television journalism, medical writing, or magazines. Because of the time ele-

ment, it is not possible to combine more than two of these specializations within the limitations of the usual four-year University program.

The School does not offer its professional work in journalism by correspondence.

Curriculum on the Operation and Care of the Linotype

A vocational curriculum on the care and operation of the Linotype, with supplementary training in teletypesetting, typography, makeup, and presswork, is conducted under the general administration of the School of Journalism. These courses do not carry University credit.

Requirements for Graduation

To obtain the degree of Bachelor of Journalism, the student must be regularly admitted to the School and must present 120 hours of approved credit. Specific course requirements that must be included in the 120 hours of credit are included in the Announcement of the School of Journalism.

In addition to the required credit hours, the student's record must show an average grade of C on admission, an average grade of C in professional journalism courses, and an average grade of C in his record on graduation. This requires that a student who presents on his total record more than the required number of hours must balance the additional number of hours by an equal number of grade points. In computing these averages, work done at other institutions and accepted for admission or for advanced standing at the time of admission will be rated invariably as of C grade.

Enrollment Regulations

No student in the School of Journalism may take more than 16 hours a semester, except that a student who has established a B average the year before may carry 17 or 18 hours, and one who has established an A average may carry 19 hours; in both instances with special permission of the dean. No student may take less than 12 hours of work in one semester, except that the dean may reduce the minimum in necessary cases. Eight hours is the maximum, 6 the minimum, for the summer session.

Graduate Study

A student should consult both the Dean of the Graduate School and the Dean of the School of Journalism before planning a program of work for a higher degree. Graduate students in journalism must have completed the journalism courses required of all candidates for the Bachelor of Jour-

nalism degree. These courses are History and Principles of Journalism, News (or Reporting), Copyreading, and Advertising Principles and Practice. Students from other schools may complete these courses while enrolled in the Graduate School.

The Master of Arts degree requires 32 hours of approved graduate courses and the production of a satisfactory thesis. The degree of Doctor of Philosophy requires a period of at least six semesters without serious interruption, an acceptable dissertation, and the satisfactory meeting of all other requirements of the Graduate School. Requirements for the Ph.D. degree are not computed in terms of time and courses; the degree is conferred only on evidence of an actual contribution to knowledge of a character approved by competent judges.

With the following exception, no student shall be admitted to candidacy for the Ph.D. until he has passed a qualifying examination:

An applicant may be excused from the Ph.D. qualifying examination if he has passed the M.A. comprehensive at the University of Missouri, having then stated on his paper that he wished it to be accepted as both the M.A. comprehensive and the Ph.D. qualifying.

The Ph.D. qualifying shall be a written examination similar in scope to the M.A. comprehensive, but in general a higher level of performance will be expected.

Summer Sessions and Intersessions

The School of Journalism offers some lecture courses and all laboratory courses during the summer session. Information will be found in the Summer Session Schedule of Courses.

Students adequately prepared may enroll for the intersessions which are held between regular University terms and during the Christmas, Thanksgiving, and Easter vacations. In the *Announcement of Courses* these courses are identified as "ss." Work is in laboratory courses only and admission is by application and registration at the time specified in current bulletins.

Journalism Week

Addresses by journalists of state, national, and international importance are arranged from time to time throughout the school year. A large number of these are given at the annual Journalism Week which has brought wide recognition to the School. Since 1930 the School of Journalism has awarded a total of 172 Honor Medals for Distinguished Service in Journalism. These awards have been presented to United States and foreign newspapers, magazines, Missouri editors, alumni of the School of Journalism,

and leaders in news, management, advertising, photography, radio and television.

Placement Bureau

The School of Journalism maintains a placement office to help its graduates find positions for which they are qualified.

Bulletins on Journalism

The School of Journalism publishes a series of bulletins for distribution among workers in journalism. For these bulletins, or for the Announcement of the School of Journalism, address the Dean, School of Journalism, 100 Neff Hall.

School of Law

Established in 1872, the School of Law is one of the oldest law schools west of the Mississippi River. Since its establishment it has kept in advance of the requirements for admission to the bar.

The School has been approved by the Section on Legal Education and Admission to the Bar of the American Bar Association since its first classification of American law schools. It is a charter member of the Association of American Law Schools.

Law Building

The School of Law is located in Lee H. Tate Hall which was erected as a memorial to Lee H. Tate, a graduate of the School. This memorial was made possible largely through the generosity of his parents, the late Mr. and Mrs. Frank R. Tate of St. Louis.

The Law Library, located in Tate Hall, contains approximately 110,000 volumes and includes both the original and reprints of the English reports; the reports of the British Empire consisting of the Australian, Canadian, Indian, Irish, Scotch, South African and Colonial Reports; several sets of the reports of the Supreme Court of the United States; the reports of the inferior federal courts; the reports of the courts of last resort of the several states in both the official edition and the National Reporter System; a substantially complete collection of the published decisions of the inferior courts of every state; the necessary digests, standard treatises, and encyclopedias found in all well-equipped law libraries. Other collections include, in addition to the latest statutory compilations of all the states, large numbers of the older compilations and session laws and state bar association reports. There is a good general selection of the various services reporting administrative regulations and rulings, new court decisions, new statutes and amendments to existing laws. The collection of law reviews and professional journals is quite extensive.

Aims and Methods

The School of Law exists to provide a thorough training in law to equip students for the practice in all jurisdictions where the Anglo-American system of law prevails and particularly to serve Missouri and its bar. The School also recognizes a duty to the state to prepare its graduates for public service and public leadership. Students who do not intend to prac-

tice find the course valuable training for citizenship and for public careers.

The School of Law does not seek merely a large number of students, and the entrance requirements are such as to admit only those whose education and maturity fit them for serious study. Through the study and discussion of cases and statutes the School seeks to impart an organized knowledge of the principles of the Anglo-American system of law, to develop a capacity for legal analysis of problems with which lawyers and judges must deal, and to inculcate a highly developed sense of professional responsibility.

Emphasis is placed upon the origin and growth of legal principles, upon the social factors which produced them, and upon their fitness in the light of present conditions. As a part of the training for the practice of law, it is desirable that prior to graduation all students in the School of Law spend at least one summer in a law office as an apprentice. A student may thus acquire training of a practical nature which it is impossible to give in the School, and at the same time acquire professional attitudes and a realistic acquaintanceship with professional problems.

The School serves the bar of the state by the publication of the *Missouri Law Review*, and by cooperating in various ways with the bar to further the best interest of the profession and in the development of jurisprudence of the state.

The case method of instruction is employed, supplemented by statutory and other legal materials and by problems and opportunities for individual work in legal writing. Particular effort is made to train the students in the procedural side of the law. Instruction in the classroom is supplemented by the work of the Case Clubs, and in the trial of cases as a part of the course in Trial Practice. In many courses emphasis is placed on the drafting of legal instruments and research. The methods conform to the most modern standards of legal education.

Requirements for Admission

The following persons are eligible for admission to the School of Law:

First, persons who have received a bachelor's degree from the University of Missouri or from any institution accredited therewith. Persons who have a bachelor's degree but do not have a C average on all courses taken must have special permission of the Dean to enroll.

Second, persons who have not received a bachelor's degree, but who have completed in residence at the University of Missouri, or any other university or college accredited therewith, at least 90 semester hours of college work acceptable for a bachelor's degree at the University of Missouri.

The following courses (whether or not required of all students) may not be used in satisfying the 90-hour requirement: correspondence courses; and nontheory courses in Army, Air, and Naval ROTC, hygiene, domestic

arts, physical education, vocal or instrumental music, practice teaching, teaching methods and techniques, and similar nontheory courses.

All of the college work undertaken by persons who have not received a bachelor's degree, exclusive of correspondence courses and such courses as the nontheory courses described above, must have been passed either with a scholastic average of C, M, or their equivalents or with a scholastic average at least equal to the average required for graduation in the institutions attended, whichever average is higher.

Each student admitted will be required to furnish a written statement as to his previous attendance at other law schools, and as to his previous applications for admission to other law schools.

All students admitted to the University of Missouri School of Law are required to take the Law School Admissions Test. Admission is not dependent upon a minimum score on the test but the results must be on file for information of the faculty for guidance purposes. Until further notice students will be admitted without taking the test, but they will be required to take it at the next time it is given after being admitted. Applicants are urged to take the test at least nine months prior to entrance into law school. Arrangements for taking the test are made with the Educational Testing Service, 20 Nassau Street, Princeton, New Jersey.

The School of Law may refuse admission to any person whose previous record shows work of an inferior or unsatisfactory quality.

Advanced Standing

A maximum of one year's credit may be allowed toward the degree of Bachelor of Laws for work successfully completed in another law school which at the time the credit was earned was a member of the Association of American Law Schools. The right is reserved to refuse such credit, in whole or in part, or to allow it conditionally, and such credit may be withdrawn for poor work here. A person transferring from another law school with advanced standing must show that at the time he began the study of law at the other law school he could have met the requirements then in force for admission to the University of Missouri School of Law.

Applications for advanced standing should be made to the dean and should be accompanied by a certified transcript of records showing college and law credits.

Prelegal Preparation

While no prescribed course of study is required of prelegal students for admission to the School of Law, courses that require a maximum amount of work and independent thinking and which will require them to exert their best efforts will constitute the best preparation for the study of law.

A more complete statement may be found in the Announcement of the Law School.

Combined Curriculum in Arts and Law

Seniors in the College of Arts and Science may elect courses from the first year in the School of Law for a maximum credit of 30 hours. Such 30 hours of law work are acceptable to the faculty of the College of Arts and Science toward a Bachelor of Arts degree. A combined curriculum of this character will enable the student to obtain the degrees of Bachelor of Arts and Bachelor of Laws in six years or, by attending summer sessions, the period of study under the combined curriculum may be reduced.

All specific course requirements for the Bachelor of Arts degree under the combined curriculum in Arts and Law must be completed by the end of the junior year in the College of Arts and Science. If this is to be accomplished a student will need to be fully advised throughout his undergraduate registration. Information concerning these requirements will be furnished upon request by the Dean of the College of Arts and Science.

Requirements for Graduation

The curriculum of the School of Law extends through three academic years of two semesters each. Upon favorable recommendations of the faculty of the School of Law, the degree of Bachelor of Laws will be conferred upon those students who:

1. Have pursued in residence the study of law for at least three academic years, or the equivalent, two of which, including the last, must have been completed in this School. In order to count resident study in satisfaction of this time requirement, a student in this School must carry courses aggregating not fewer than 12 hours per semester. A student in this School carrying courses aggregating fewer than 12 hours per semester will receive only proportional time credit. In case a student fails to pass 9 hours of work in a semester he shall not receive residence credit in excess of the ratio that the hours passed bear to 9.
2. Have passed examinations in all required courses.
3. Have passed examinations in law courses aggregating not fewer than 84 credit hours and have secured at least 56 points. One point is given for each hour in those courses in which the student receives the grade of C; 2 points for each hour in those courses in which the student receives the grade of B; and 3 points for each hour in those courses in which the student receives the grade of A. All students are required to earn the 56 points necessary for graduation from the first 84 hours of work taken in this School. The point requirement will be proportionately reduced for students who are allowed credit toward the degree for work suc-

successfully completed in another law school, except that credits transferred for work taken in another school in which a grade below C is received may not be counted to reduce the numbers of points required for graduation from this School. Such credits, however, may be counted in the total number of hours required for graduation.

Students who discontinue their residence in this School for two or more consecutive years must, after their return, meet the degree requirements in force at the time of their readmission.

No student will be permitted to carry more than 15 hours of class-work per week in any semester or summer session except under extraordinary circumstances and with the permission of the dean.

The curriculum requiring three years residence for its completion is one arranged for full-time students and is prescribed by the standards of the American Bar Association issued on February 1, 1930. Those requirements provide that an approved school "shall require its students to pursue a course of three years' duration if they devote substantially all of their working time to their studies and a longer course equivalent in the number of working hours if they devote only part of their working time to their studies."

Unless, therefore, a student enrolled in the regular full-time course devotes substantially all of his time to his law work, he is not meeting the requirements of the American Bar Association. Accordingly, a student who is engaged in outside work which is calculated to prevent devoting substantially his full working time to the study of law will be required to lengthen the period of his study. The standards of the American Bar Association provide that a part-time course "shall cover a period of at least four years of at least 36 weeks each and shall be equivalent of a full-time course." Students who are not devoting substantially all of their working time to their studies will be required to arrange their schedule and curriculum on the basis of a part-time course.

Summer Term

The summer session of the School of Law extends from June 13, 1960 to August 5, 1960. The courses given carry full credit toward graduation.

The courses offered in the summer session are an integral part of the Law School curriculum so that a law student may go forward without delay in preparing for entrance to the profession. By attending summer sessions following the first and second years in the Law School one may shorten the period required for his degree by one semester. Beginning students will not be admitted to the summer session.

For complete information concerning the School of Law and its curricula, address the Dean, School of Law, 201 Tate Hall.

School of Medicine

In 1845 the McDowell Medical College agreed to serve as the medical department of the University of Missouri. The McDowell School had been started in 1840, and was the first medical school to be formed west of the Mississippi. The University's connection with the McDowell School lasted until 1855. The University did not offer the medical curriculum again until 1872 when a Department of Medicine, with a two-year program, was established on the Columbia campus. The program was increased to three years in 1890 by re-establishment of relations with the McDowell School. In 1899 a fourth year was added, but in 1909 the School for financial reasons was cut back to the two-year program. In 1930 an unsuccessful attempt was made to add the third and fourth years. Appropriations in 1951 and 1953 permitted the expansion of the curriculum to four years and the building of the new Medical Center. The first class to receive the M.D. degree under this new program graduated in 1957.

The School of Medicine has always maintained high standards for its teaching and research programs. Laboratory facilities set up in the 1890's were among the best of their time, and the School was favorably mentioned in the Flexner report.

In addition to providing an intensive program of basic science education, the School of Medicine gives laboratory and clinical training in all medical subjects; contributes to original research; and promotes the continuing study of medicine throughout the State by means of post-graduate programs.

Medical Center

The Medical Center, which began operation in the Fall of 1956, is made up of the Medical Sciences Building and the Teaching Hospital. These two buildings are connected by a corridor which contains offices, laboratories, the Medical Library, and the Auditorium. Located just to the east of the Hospital, and connected to it by an underground passage, is the Nurses Residence with living quarters for 105 students and two housemothers. The Hospital has 441 beds, and maintains facilities for both in- and out-patient treatment. The offices, classrooms, and laboratories of the clinical departments are located in the Hospital. The Medical Sciences Building contains the offices, classrooms, and laboratories for the basic science departments; the School of Nursing; the Animal Quarters; and the Central

Experiment Shop. The corridor connecting the Hospital and the Medical Sciences Building has recently been enlarged by a five-story addition which will provide laboratory and office space. The Medical Library has stack space for 100,000 volumes, and seating space for 139 readers. The stacks contain 32 individual carrels. The Library collection presently numbers 35,000 volumes, and 925 journals are currently received.

The School of Medicine maintains teaching affiliations with the Kansas City Receiving Hospital, the St. Louis State Hospital, and the Ellis Fischel State Cancer Hospital in Columbia.

Fees and Expenses

Fees for each of the four years approximates \$467.00. Textbooks and supplies average about \$130.00 for the first year, \$250.00 for the second year, and about \$150.00 for the two clinical years. In addition, each student furnishes his own microscope.

Admission Requirements

1. A bona fide resident of Missouri is given preference.
2. The applicant must have completed a four-year high school course or its equivalent. High school students contemplating a medical career should obtain a sound grounding in mathematical sciences, preparatory to filling the undergraduate college requirements in chemistry and physics and the more exacting requirements in the basic medical sciences. A general survey of the arts and the humanities, both in high school and college, will provide the future physician with a cultural educational background much to be desired, especially after completion of his medical training.
3. Minimum requirements are the first three years work or 90 normal semester hours credit (exclusive of the required work in physical education and ROTC) in the College of Arts and Science of the University of Missouri, or its equivalent completed in an approved institution. It is recommended, however, that a student obtain an A.B. or B.S. degree before entering medical school.

4. Credit for admission must include not less than normal credit hours as follows:

English composition and literature	6 hours
German, French, Spanish, or Latin	8 hours*
General zoology	5 hours

At least 2 hours must be laboratory work.

*Proficiency equivalent to 8 hours college credit accepted at the discretion of the admissions committee.

Comparative anatomy	5 hours**
At least 2 hours must be laboratory work.	
General physics	8 hours
At least 2 hours must be laboratory work.	
Inorganic chemistry	8 hours***
At least 4 hours must be laboratory work.	
Organic chemistry	5 hours
At least 2 hours must be laboratory work.	

5. No course which counts toward a degree in medicine may be included in the hours required for admission.

It is the policy of this School not to accept for admission students who have failed or who have been dismissed by other medical schools.

Selection of medical students from the applicants will be made by the Committee on Admissions. Students will be selected upon the basis of their general scholastic standing as well as that in the required pre-medical subjects, upon their character and motivation as disclosed by personal interviews and recommendations, and by their grades in the Association of American Medical Colleges Medical College Admission Test. In the case of any applicant, the Committee reserves the right to require an examination in any or all premedical subjects.

Application for Admission

Only one class of students is accepted (in September) each year. Applications from bona fide Missouri residents are given preference.

Application blanks should be requested from the Director of Admissions, 130 Jesse Hall, and filed with him, along with required documents, as early as possible after July 1 of the year preceding and not later than January 15 preceding admission.

Letters of reference and all other correspondence including requests for information should be addressed to the Assistant Dean, School of Medicine.

All applicants must take the Medical College Admission Test by May or October of the calendar year before they expect to enter. Applications for taking the test should be sent to the Educational Testing Service, P.O. Box 592, Princeton, New Jersey. For all information on the tests, write the Educational Testing Service.

All applicants must take the Medical College Admission Test by May or October of the calendar year before they expect to enter. Applications for the May, 1960, test should be sent to: Educational Testing Service, 20 Nassau Street, Princeton, New Jersey. The October, 1960, test will be

**The admissions committee may, at its discretion, accept 8 hours of general zoology, of which at least 4 hours is laboratory, in place of the 5 hours general zoology, and 5 hours comparative anatomy.

***Inclusion of some quantitative chemistry is recommended.

handled by: The Psychological Corporation, 304 East 45th Street, New York 17, New York. Information on the tests may be obtained from these two testing agencies.

The most promising applicants are selected for an interview with the admissions committee. Interviews will be scheduled in the fall and will terminate by February 1.

Selections of accepted students will be made not later than February 1 and they will be notified immediately. A list of alternates will also be selected and from this list students will be accepted as vacancies occur due to withdrawals. New applications will not be accepted after January 15.

All acceptances will be contingent upon continued evidence of academic achievement and completion of all requirements.

All students who are accepted are expected to complete their four years of medical education in residence at the School of Medicine unless scholastic, moral, or other extenuating circumstances arise.

Curriculum and Degrees

All candidates for the degrees Doctor of Medicine and Bachelor of Arts must satisfy the legal requirement in history and government as described in the chapter on General Regulations and Requirements. Where a student is working toward two bachelor's degrees, the requirement will apply to the first degree only.

Doctor of Medicine. Students may receive the degree of Doctor of Medicine (M.D.) upon the completion, while enrolled and in residence in the School of Medicine, of the required medical curriculum.

Bachelor of Arts. The combined course in Arts and Science and in Medicine is available only to students who have completed their junior year in residence at the University of Missouri. It leads to the degree of Bachelor of Arts conferred by the College of Arts and Science at the end of one year in medicine. Such students must meet the requirements for admission to the School of Medicine and, in addition, complete the freshman, sophomore, and junior requirements of the College of Arts and Science and sufficient additional work in science so that a suitable program may be completed as required in the College of Arts and Science. The student should consult the official premedical advisers of the College of Arts and Science not later than the second semester of the freshman year, and it is essential that he have their guidance at each enrollment period.

Students who have received the degree of Bachelor of Arts in the combined course may receive the degree of Bachelor of Science upon completion of the second-year curriculum in the School of Medicine.

Graduate work. Special opportunity is given and every encouragement is offered to students who desire to do advanced work in any of the fundamental medical sciences. The degrees of Master of Arts (A.M.), Master of Science (M.S.), and Doctor of Philosophy (Ph.D.) may be secured in the basic science departments. Advanced research in the fundamental medical sciences is highly desirable as a basis for the most thorough work in clinical medicine. It is especially advantageous for those students who desire to specialize with a view to becoming teachers in any of these branches. The demand for such teachers far exceeds the supply and offers an attractive career which many graduates have followed with success. Fellowships and scholarships are available to those who are qualified for graduate work.

Medical Technology. The College of Arts and Science, in conjunction with the School of Medicine, awards a Bachelor of Science degree to students fulfilling the requirements of the Medical Technology curriculum. To be eligible for the Bachelor of Science degree students must spend their junior year in residence in the College of Arts and Science, must fulfill all requirements for a baccalaureate degree prior to admission to the Medical Technology program, and must complete their hospital training in the Department of Pathology here. Upon satisfactory completion of this program the candidate receives the Bachelor of Science degree and a Certificate of Proficiency in Medical Technology. He is also eligible for examination and certification by the Registry of Medical Technologists of the American Society of Clinical Pathologists.

Qualified students interested in Medical Technology training without securing a degree should apply to the Admissions Committee for Medical Technology at the Medical Center.

For detailed information concerning requirements for entrance to either program write to the Dean of the College of Arts and Science, 210 Jesse Hall, or the Chairman, Department of Pathology, Medical Center.

Postgraduate Instruction

Graduate and postgraduate instruction, both long-term and short-term, in various departments and areas of interest are available to qualified physicians by arrangements with the Committee on Postgraduate Medical Education and the various departments involved. Residency training programs, varying from one to four years in length and leading to approval by the Council on Medical Education and Hospitals of the American Medical Association and certification by the individual Specialty Boards are available currently in general practice, general surgery, internal medicine, obstetrics and gynecology, ophthalmology, orthopedic surgery, pathology (both tissue diagnosis and clinical pathology), pediatrics, radiology, and urology.

School of Nursing in the School of Medicine

The School of Nursing is built on a long tradition originating in 1901 when Parker Memorial Hospital Training School for Nurses was established. In 1920 the University assumed responsibility for this school and changed the curriculum to a three-year combined program of Arts and Science and Nursing. Between 1939 and 1947 a five-year program leading to the degree, Bachelor of Science in Nursing, was offered.

In 1949 the Board of Curators established the Department of Nursing Education within the School of Medicine. The name was changed to School of Nursing in 1954.

The School of Nursing offers at this time two programs leading to the degree, Bachelor of Science in Nursing: (1) The Basic Professional Program, established in 1950; and (2) The Supplemental Program for Graduate Nurses, established in 1951. The school also offers opportunities for continuing education in nursing through extension courses and conferences.

The School of Nursing was established to help meet the needs of the State for nursing services, especially in the rural areas.

Facilities

The offices and classrooms of the School of Nursing are located in the Medical Sciences Building adjoining the Teaching Hospital which provides facilities for clinical experience for both in-patient and out-patient nursing care. In addition to the facilities in the Medical Center, instructional and recreational facilities of other divisions of the University are available. Arrangements are also made for use of other selected hospitals and health agencies as needed.

The Medical Library located between the Teaching Hospital and the Medical Sciences Building contains a wide variety of books and periodicals on nursing and related subjects. The General Library and other divisional libraries are also available for use.

Advisement

Upon admission to the School of Nursing, each student is assigned a faculty adviser who assists in planning the schedule of classes, gives in-

formation about the University, and is available for consultation and advice about the total college program. During the first semester of enrollment, selected aptitude, interest, personality, and achievement tests are administered. The results of these tests are used in student advisement.

Basic Professional Program

This program is provided to enable young men and women interested in studying nursing to prepare for meeting the responsibilities of the graduate professional nurse: to render skillful, understanding nursing care; to carry out medical treatments delegated by the physician; to assist with prevention of disease and promotion of health for all people; to direct and supervise those assisting in meeting the nursing needs of the patient in hospital and community; to cooperate with other health professions; to function as members of a democratic society; and to contribute to the improvement of the nursing profession. The curriculum is also planned to provide a base for graduate study.

Admission. General regulations for admission to the University of Missouri are included in the Chapter on Admissions. The necessary application forms may be obtained by writing the Director of Admissions, 130 Jesse Hall. Applicants must complete the regular University application forms. In addition to the forms submitted to the Director of Admissions, one original or photostatic copy of the high school transcript and one photostatic copy of the birth certificate must be sent to the School of Nursing, M233, Medical Sciences Building. Students who plan to enter the basic professional program are advised to complete chemistry, biological science, and algebra in the high school program.

Advanced standing. A student who has been regularly admitted to another college, university, or school of nursing may be admitted to the basic professional program upon presentation of an official transcript and a statement of honorable dismissal. Transfer of credit may be allowed for courses regularly approved in the basic professional curriculum provided they are passed with satisfactory grades (C, in the University of Missouri). Students selecting their courses carefully may transfer credit from another college or university for the first year of the program. Usually it is necessary for a transfer student to attend summer school at the University of Missouri in order to complete the requirements needed before entering the sophomore year.

Curriculum

The curriculum is designed to prepare young men and women who have had no previous education for nursing to meet the responsibilities of the

graduate professional nurse and is planned to provide an appropriate base for graduate study. The curriculum is accredited by the Missouri State Board of Nursing. Graduates of the school are eligible for admission to the licensing examinations in Missouri and other states.

The curriculum is composed of selected general academic courses and professional courses. It requires enrollment for a minimum of four academic years and one summer session. During the first year, the courses are largely general academic and pre-professional. Since many of these courses are basic to the professional courses, they must be completed satisfactorily before enrollment in the clinical portion of the curriculum. After the first year, a greater proportion is devoted to courses in nursing coordinated with clinical practice in the Teaching Hospital. During one semester in the junior or senior year of the curriculum off-campus agencies are used for teaching psychiatric nursing and public health nursing.

Supplemental Program for Graduate Nurses

Admission. The applicant must have graduated from a three year program in a state-accredited school of nursing; be currently licensed to practice as a registered nurse in a state or territory of the United States; obtain satisfactory scores on the National League for Nursing Graduate Nurse Qualifying Examination Plan C.

In addition to the credentials stated in the chapter on admissions for students who have attended colleges or schools elsewhere, the applicant must submit a photostatic copy of her current License to Practice. The School of Nursing also requires the following credentials (sent directly from the school or agency to the School of Nursing): (1) A copy of the final summary of the student's progress and development in her school of nursing, (2) letters of reference from former employers (forms for this are to be obtained from the University of Missouri School of Nursing), and (3) the results of the NLN Graduate Nurse Qualifying Examinations. The NLN tests are given each Fall and Winter semester in Kansas City and St. Louis, and twice a year in Columbia. Applications and specific information are obtained from the School of Nursing.

Advanced standing. Qualified applicants are admitted as provisional juniors in the University. Fifty-two semester hours of advanced standing for the diploma program are given to those students regularly enrolled who do creditable work during their first semester of full time enrollment or a total of 18 hours of part time enrollment and are recommended for advanced standing by the faculty of the School of Nursing.

Credit for courses completed in other accredited colleges or universities may be accepted provided they are of recent origin, a grade of C or better

is attained, and they are equivalent to courses regularly approved in the curriculum of the Supplemental Program for Graduate Nurses. Official notice of this advanced standing is given shortly after enrollment.

Curriculum. The curriculum is designed to provide the opportunity for graduates of a diploma program in nursing to broaden and deepen their preparation for beginning positions in all fields of nursing, including public health, to enrich understanding and appreciation of the relationship of personal growth and development to effective professional practice, and to recognize values and establish foundations for participation in a program of continuing education.

The curriculum includes 41-42 semester hours of selected general academic courses, 5-6 semester hours of free electives and 25 semester hours of nursing courses, including guided clinical experience and field work in public health nursing. The full time student, without previous college work may complete the program in about two calendar years.

Requirements for Degree

Candidates for the degree are required to present a minimum of 124 hours and 248 points exclusive of physical education. For the purpose of evaluation, A equals 4 points; B, 3 points; C, 2 points; D, 1 point. No points are given for F grades.

The last 24 hours of work must be taken in residence. No more than 20 hours earned through extension or correspondence will be accepted as credit toward the degree. Candidates must make a satisfactory record on an English Proficiency Examination.

School of Mines and Metallurgy

Rolla

In 1870, the General Assembly, in accepting the donation by the federal government of lands for educational purposes, established an Agricultural College and School of Mines and Metallurgy, "the leading object of these colleges" being "to teach such branches as are related to agriculture and mechanic arts and mining, including military tactics, and without excluding other scientific and classified studies, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life." The statutes fix the status of the School of Mines and Metallurgy as a division of the University of Missouri. Its affairs are under the supervision of the Board of Curators of the University.

Equipment

Grounds and athletic field. The academic campus of the School of Mines and Metallurgy consists of 32 acres. The Jackling Athletic Field has a baseball diamond, a football gridiron, a 440-yard running track, and tennis courts. The golf links and intramural game fields of the School, containing approximately 80 acres, are situated within four blocks of the campus.

Buildings. There are twenty-three permanent buildings on the campus: Mining Building, Metallurgy Building, Harris Hall, Engineering Laboratories Building, Norwood Hall, Fulton Hall, Chemical Engineering Building, Chemistry Hall, Rolla Building, Military Building, Electrical Engineering Building, Civil Engineering Building, Parker Hall, Student Union, Jackling Gymnasium, Dean's Residence, Power Plant, Cafeteria, Dormitories, Married Student Apartments, Infirmary, Warehouse, and Workshop. In addition there are several temporary classroom buildings and apartments. Construction is also expected to begin in 1960 on a general classroom building and a nuclear reactor building.

Library. The library contains 98,000 carefully selected volumes, not including unbound material. Works on engineering, mathematics, chemistry, physics, mining, metallurgy, geology, and mineralogy afford students reading in connection with their classwork. The library also contains standard

works in English and American poetry, fiction, biography, and history. It is well provided with encyclopedias and works of general reference.

Laboratories

The laboratories and research facilities are described in detail in the catalog of the School of Mines and Metallurgy which may be obtained upon request directed to the Dean, School of Mines and Metallurgy, Rolla, Missouri.

Degrees

The Bachelor of Science degree is granted in science (major in chemistry, geology, or physics), mining engineering, metallurgical engineering, civil engineering, mechanical engineering, electrical engineering, chemical engineering, and ceramic engineering.

The candidate for the degree of Bachelor of Science, or Bachelor of Science in an engineering curriculum, shall complete, in residence for at least the senior year, the prescribed course of study in the corresponding curriculum.

Combination curricula. Combination curricula leading to two engineering degrees may be arranged for any two of the foregoing degrees. The amount of additional time will be at least 40 semester hours in excess of that required for one degree. For instance, a joint curriculum, mechanical and electrical engineering, can be taken in five years. Where the curricula are more diverse, six years may be required.

Master of Science. The Master of Science degree is granted in science (chemistry, geology, or physics), mining engineering, metallurgical engineering, civil engineering, mechanical engineering, electrical engineering, chemical engineering, ceramic engineering, and nuclear engineering.

The candidate for the degree of Master of Science shall hold the degree of Bachelor of Science, or its equivalent, from an institution of recognized standing. The candidate for the degree of Master of Science in an engineering curriculum shall hold the degree of Bachelor of Science from an institution of recognized standing. Candidates for either degree must complete in residence a one-year course of graduate work, approved by the Committee on Graduate Study, and shall submit an acceptable thesis.

Engineer of Mines, Metallurgical Engineer, Civil Engineer, Mechanical Engineer, Electrical Engineer, Chemical Engineer, and Ceramic Engineer. These are honorary degrees and the candidate must hold a degree in an engineering curriculum from this institution. The degree may be awarded after a minimum of five years in a responsible position in the engineering

profession. Detailed information may be secured from the Dean of the Missouri School of Mines and Metallurgy, Rolla, Missouri.

Doctor of Philosophy. Candidates for the degree of Doctor of Philosophy (in mining, metallurgical, ceramic, and chemical engineering, and geology) must register with the Graduate School of the University of Missouri at Columbia and be subject to all regulations of the Graduate School. A statement of the rules governing the granting of the degree of Doctor of Philosophy may be found in the section on the Graduate School. Work done in residence either at Rolla or at Columbia may count toward the degree. The examinations are conducted by a committee appointed by the Dean of the Graduate School of Columbia. The degree is conferred by the University of Missouri.

Curricula

Curricula offered. The School of Mines and Metallurgy offers the following curricula:

- | | |
|-------------------------------|----------------------------|
| I. Mining Engineering | V. Mechanical Engineering |
| a. Mining Engineering | |
| b. Petroleum Engineering | VI. Electrical Engineering |
| II. Metallurgical Engineering | VII. Chemical Engineering |
| a. Metallurgical Engineering | a. Chemical Engineering |
| b. Nuclear Engineering | b. Petroleum Refining |
| III. Civil Engineering | |
| IV. Science | VIII. Ceramic Engineering |
| a. Chemistry | |
| b. Geology | |
| c. Physics | |

Credit required for degree. To receive a degree the student must obtain credit in all of the required subjects listed in one of the regular curricula and sufficient additional credit in elective subjects to total 148 credit hours, exclusive of required physical education and ROTC.

Graduate courses. Graduate work is offered in all departments. The work is elective under the advice of the faculty.

For further information address the Registrar of the School of Mines and Metallurgy, Rolla, Missouri, requesting a copy of the catalog of that division of the University.

Missouri State Military School

Under the provisions of the Morrill Act approved by Congress on July 2, 1862, the University of Missouri was designated as a landgrant university. Military training is required in the curriculum at the University as its contribution toward national defense, in return for which instructors, equipment, uniforms, and funds therefor are furnished to the University by the United States.

Military training is offered through an Army Reserve Officers Training Corps, a Naval Reserve Officers Training Corps, and an Air Force Reserve Officers Training Corps. Students are taught the fundamentals of the military profession with a view to attaining proficiency in military science and providing qualified members for the reserve components of the services.

Every male student enrolled in the University of Missouri, unless excused by a faculty committee, must pursue a basic two-year course in ROTC during his freshman and sophomore years. The successful completion of the ROTC courses required of him is a prerequisite for graduation. Completion of four semesters work in either Army, Naval or Air Force ROTC during the freshman and sophomore years fulfills this requirement.

Enrollment in the advanced courses in Army ROTC and Air Force ROTC beyond the required basic courses is voluntary. By order of the Board of Curators the completion of these courses, once entered upon, is a prerequisite for graduation, unless completion is excused by the appropriate agency of the United States government. The Regular and Contract Naval ROTC courses are four-year programs. At the time of application the student obligates himself to complete the course, unless excused by the United States government. A Regular Naval ROTC student cannot drop his enrollment at his request after the start of his second school year; a Contract Naval ROTC student cannot drop his enrollment at his request after the start of his third school year.

All students taking ROTC instruction compose the University Corps of Cadets and Midshipmen. The laws of Missouri (R.S.Mo. 1949, 172.560-172.600) designate this part of the University program as The Missouri State Military School and prescribe conditions under which the Corps may be given an official status by the state government.

Air Force Reserve Officers Training Corps

The Air Force ROTC was established under authority of the National Defense Act of 1916, as amended. Its purpose is to train selected college students for commissioning as officers in the United States Air Force Reserve. At the University of Missouri it performs the additional function of providing basic military training to many students in their freshman and sophomore years who do not desire, or are not selected, to complete the further training necessary for a commission.

The Air Force ROTC is organized as a senior unit administered by commissioned officers of the United States Air Force under the jurisdiction of Headquarters Air Force ROTC, Maxwell Air Force Base, Alabama.

The commanding officer of the detachment is designated as the Professor of Air Science and is chairman of the academic Department of Air Force ROTC. Assigned officers serve as members of the University instructional staff. A number of airmen also assist in the administration of the program.

All students taking AFROTC instruction are organized into a Cadet Wing, an organization paralleling a standard Air Force wing. The prescribed uniform is furnished each student by the Air Force through the University. Students enrolled in AFROTC courses are not members of the United States Air Force.

Training consists of a basic course and an advanced course, each of two years duration. The basic course is usually given to freshman and sophomore students. The elective advanced course is normally undertaken by students in their junior and senior years. All students undergo a program of academic classroom instruction as well as outdoor training in drill, leadership, and the exercise of command.

Basic Course

In satisfying the University requirement that each student pursue a basic course of ROTC during his freshman and sophomore years, a student may enroll in the Air Force basic program. The freshman course and the sophomore course each meet three periods per week and together constitute the required basic course.

A student once enrolled in a senior division ROTC program of either Army or Air Force must normally continue all subsequent training in that service. A student previously enrolled in a junior division ROTC program (usually in a high school) may apply for either Army, Navy or Air Force at the University of Missouri.

Selected basic students may be deferred from the draft. These students must agree to enter the advanced course, if accepted. Further, they must

meet the established physical, mental, and academic standards for ultimate commissioning in the Air Force Reserve. A deferment may be terminated if the student fails to maintain prescribed standards of academic and military achievement and conduct.

Each basic student is furnished a uniform and textbook material, for which a deposit of \$10.00 is required. Upon return of this equipment in satisfactory condition the deposit is refunded. The student may be held responsible for any damage to the uniform or textbooks in excess of normal wear.

Advanced Course

Qualified students may apply for the advanced course consisting of four semesters of academic work plus four weeks of summer training at an Air Force base. Summer training is usually scheduled between the junior and senior years. The object of this course is to qualify students for appointment as second lieutenants in the Air Force Reserve.

Applicants for the advanced course are selected jointly by the President of the University and the Professor of Air Science and are placed under contract with the government. The number of applicants selected depends on a quota furnished by AFROTC Headquarters.

To be accepted into the advanced course the student must:

1. Be formally enrolled in the University and have at least two academic years remaining to complete all prerequisites for a baccalaureate or higher degree.
2. Agree to attend 5 hours per week of air science instruction and to pursue the prescribed course of summer training.
3. Agree to accept a commission, if tendered, at the completion of his advanced training; to serve on active duty for a period of not less than three years after receipt of such commission, subject to call by the Secretary of the Air Force; and to remain a member of a regular or reserve component of the Air Force until the sixth anniversary of the receipt of his commission.
4. Complete the basic course or have equivalent credit for same.

(The Professor of Air Science may waive so much of the basic course as he considers equivalent to honorable active service in the Air Force, Army, Navy, Marine Corps, or Coast Guard provided he does not waive any portion which the cadet can complete prior to entrance into the advanced course. To satisfy entrance requirements for the advanced course, veterans entering an institution at freshman or sophomore level who desire a commission through AFROTC will be required to take in phase with non-veteran contemporaries the portion of the basic program which remains. Advanced standing will not be granted for training received as a member of the junior division, high school, Army ROTC.)

5. Be less than 28 years of age at time of graduation and commissioning. (Exception: Applicants enrolling in flight training must be less than 27 years of age.)

6. Meet the prescribed physical standards for appointment as an officer in the Air Force Reserve.

7. Meet the prescribed mental, academic, and moral standards.

Conditions for continuance and completion of training. Normally a student will not be tendered a commission unless he possesses a baccalaureate or higher degree. Usually the time of acquisition of a degree will coincide with the time of completion of the advanced course.

Once the student has been accepted into the advanced course, the contractual agreement between the University of Missouri and the Air Force requires that the ROTC course be satisfactorily completed before the University will grant the student a degree.

A student may be discharged from the advanced course because of inaptitude, lack of essential officer qualities, misconduct, or similar reasons.

Benefits and privileges. In lieu of subsistence a monetary allowance at a daily rate announced annually by the Secretary of the Air Force (usually about 90c) is paid quarterly during the period of enrollment in the advanced course except during the period of the summer training. This allowance is paid for approximately 595 days.

The pay of the first enlisted grade (about \$78.00 monthly) is received by each student while in attendance at summer training. Travel expenses between summer training and home, both ways, are paid at an established rate per mile (usually about 5c).

An Air Force officer uniform is furnished each student. This uniform is the property of the University, which normally gives it to the student at the time he is commissioned.

Texts are furnished on a loan basis without charge.

Advanced students are deferred from the draft.

A commission as a second lieutenant in the Air Force Reserve is normally tendered to the student upon satisfactory completion of the advanced course and acquisition of a baccalaureate or higher degree.

Army Reserve Officers Training Corps

The University of Missouri Corps of Cadets was first established in 1868, and was organized as the Army Reserve Officers Training Corps under the authority of the National Defense Act of 1916, as amended. Its purpose is to provide basic military training for male students and to qualify selected students for appointment as commissioned officers of the United States Army Reserve and, in the case of highly qualified graduates, of the Regular Army.

The instructional staff of the Army ROTC is headed by a colonel of the United States Army, who holds the title of Professor of Military Science and Tactics. This staff consists of selected Army officers, with academic rank of associate and assistant professors, and senior noncommissioned officers with academic rank of instructors.

Textbooks, training equipment, and basic course uniforms are provided by the federal government. Advanced Course students retain their uniforms on completion of the four-year program.

Uniform Deposit. Basic course students deposit \$10.00 at the beginning of each academic year. This deposit is refunded upon return of uniform and equipment in satisfactory condition. The student is required to pay for property which he loses or damages.

Selective Service (1-D) Deferment. Students who qualify for enrollment in the Advanced Course will be granted a deferment from induction under Selective Service for the purpose of completing the full four-year course and receiving commissions. This deferment will be cancelled if the student fails to maintain standards for enrollment in the Advanced Course.

Basic Course

The basic course consists of four semesters, each requiring two hours of class and one hour of laboratory (drill) per week, normally taken during the freshman and sophomore years. The Department of the Army's policy of coalignment specifies that a student enrolls in the military course which corresponds to his academic standing in the university; however, a student entering the university with sophomore standing and no previous military training, requiring one year of ROTC to complete the University requirement, will be enrolled in the first-year basic course.

The basic course curriculum consists of subjects common to all combat arms of the Army. The first year includes instruction in American Military History, individual weapons (including range firing), and dismounted drill. The second year emphasizes training of the individual student as a member of a team or crew; dismounted drill instruction affords opportunity for leadership at squad and platoon level. Classroom instruction during the second year includes crew-served weapons, communications, map and aerial photograph reading, and small unit tactics. During the latter part of the second year, tentative selections are made for enrollment in the Advanced Course.

Advanced Course

Students who meet the requirements stated below and are accepted by the Professor of Military Science and Tactics, with the approval of their

academic deans, may be enrolled in the Advanced (Field Artillery) Course. To qualify for enrollment, applicant must:

1. Have successfully completed the basic course or its equivalent. Twelve months or more of honorable active service in any of the armed forces, including the Coast Guard, is acceptable as full equivalent of the basic course. Six to twelve months of such service, or three years of junior division (high school) ROTC is acceptable as equivalent for the first year of the basic course. No credit is allowed for shorter periods of training, or for training in the National Guard or other Army Reserve components.
2. Be able to complete requirements for a commission as Second Lieutenant prior to his 28th birthday.
3. Meet the physical standards prescribed in current Army Regulations.
4. Successfully complete the ROTC Qualifying Examination.
5. Maintain an acceptable academic standing in the University.
6. Have at least two years of academic work remaining for a baccalaureate or higher degree at the time of enrollment in the Advanced Course.
7. Have credit for at least high school or college trigonometry.

Applicants who are fully qualified and enroll in the Advanced Course enter a contract with the United State government which provides that:

1. The student agrees to complete the Army ROTC Advanced Course, to attend summer camp training at the time and place specified by proper authority, to accept a commission in the Army Reserve if tendered, and to serve on active duty for two years or active duty for training for six months.
2. The Department of the Army agrees to pay commutation of subsistence at the rate (currently 90 cents per day) and for the period prescribed by law and regulation. This pay is suspended during attendance at summer camp, during which students receive pay of the first enlisted grade (currently \$78.00 per month). Students also receive either transportation in kind or travel allowance at the rate of 5 cents per mile to and from summer camp.

The Advanced Course contract is subject to cancellation if the student fails to maintain the prescribed qualifications for enrollment. Should a student under contract transfer to another institution offering the Army ROTC program, the student is obligated to complete his training.

The Advanced Course curriculum consists primarily of Field Artillery subjects, but also includes such general subjects as administration, military justice, and principles of leadership. Drill instruction stresses leadership responsibilities at platoon and higher level. Advanced Course students attend a six-week summer training camp between their junior and senior years. During the first year of the Advanced Course, students participate in an overnight field trip to Fort Leonard Wood for practical application of techniques taught in the classroom.

Flight training is available during the senior year on a voluntary basis to a limited number of Advanced Course students who are interested in Army aviation. Individuals accepted in the flight training program are required to serve on active duty for three years after graduation.

Advanced Course students who achieve outstanding Army ROTC and academic records are designated Distinguished Military Students and may apply during their senior year, for direct appointments as Second Lieutenants in the Regular Army.

Naval Reserve Officers Training Corps

The Naval Reserve Officers Training Corps provides a source from which qualified officers may be obtained for the Regular Navy and Marine Corps and their respective Reserve Corps. Enrollment in the NROTC unit fulfills the military training requirement of the University.

This unit is administered by commissioned officers detailed by the Navy Department under the direction of a Captain, U. S. Navy, or Colonel, U. S. Marine Corps, who is designated a Professor of Naval Science. These officers also instruct in Naval ROTC subjects, being responsible for the naval training and indoctrination of all naval students. They are members of the faculty and are given commensurate rank.

Petty Officers enlisted in the Navy or Marine Corps assist in practical instruction and in the maintenance and care of government property.

The NROTC unit at the University of Missouri is composed of young men in three classifications, namely: Contract students, Regular students, and Naval Science students.

Contract Students

Contract students are selected by the Professor of Naval Science, uniformed at government expense, and during the junior and senior years are paid the value of one commuted ration a day while under instruction. They are also furnished on loan the textbooks used in Naval ROTC courses. They obligate themselves to complete the prescribed Naval ROTC curriculum, to make one summer cruise of from three to four weeks duration, and on graduation to accept a commission as Ensign, USNR, or Second Lieutenant, USMCR. These students are deferred from the draft but in return must agree to serve two years active duty after commissioning, if called, and to remain a member of the regular or reserve component until the sixth anniversary of receipt of a commission. At present all NROTC graduates are being ordered to active duty. While on active duty the reserve officer may request transfer to the Regular Navy or Marine Corps. The quota of Contract students is set by the Navy Department and varies from year to year. These students are deferred from the draft.

Regular Students

Regular students are selected for the program by the Navy Department and are appointed Midshipmen, USNR. Selection is based upon a nationwide competitive aptitude test. The Navy provides tuition, fees, and textbooks for a period not exceeding four years. The students are uniformed at government expense and receive retainer pay at the rate of \$600 per year. They obligate themselves to complete the prescribed Naval ROTC curriculum; to attend three summer cruises or training periods from six to eight weeks; to accept a commission as Ensign, USN, or Second Lieutenant, USMC, on graduation; and to serve on active duty for four years after commissioning, unless released earlier by the Navy Department. These students are deferred from the draft.

Naval Science Students

These students are selected from those who wish to enroll in a Naval Science subject for credit or educational benefit. A student failing to qualify for Contract or Regular status may be accepted as a Naval Science student and later be accepted as a Regular or Contract student. Enrollment as a Naval Science student meets the military training requirements of the University.

General eligibility requirements. A Contract or Regular student must fulfill the following requirements:

1. Be a male citizen of the United States.
2. At the time of his enrollment, if a minor, have the consent of his parent or guardian.
3. If a Regular student, agree to accept a commission in the Navy or Marine Corps, if offered, or in the organized Reserves if a Contract student.
4. Be unmarried and agree to remain unmarried until commissioned.
5. Be physically qualified.
6. Have attained the 17th anniversary of his birth on or before July first of the year of enrollment and be of such age that he will not have passed the 25th anniversary of his birth on July first of the year he will be commissioned (i.e., not over 21 on July first for initial enrollment at the beginning freshman level). In certain cases, and with the consent of the Professor of Naval Science, a Contract student may have the minimum age requirements waived.

Enrollment. Candidates are enrolled during the summer and at the beginning of registration the first semester each year. The maximum number to be newly enrolled varies from year to year in accordance with a quota set by the Navy Department, Washington, D. C.

Those interested in enrolling in the NROTC unit are invited to com-

municate with the Professor of Naval Science, Naval Armory, Columbia, Missouri.

Naval ROTC students are subject to all rules and regulations of the University and are expected to participate in student activities and to enter fully into the normal student life. They are not housed and administered as a unit. Each man obtains living and messing accommodations in the same manner as any other student. The uniform is worn during Naval drill periods and on special occasions.

Outline of instruction. Regular and Contract students must complete the four-year Naval Science course and earn a baccalaureate degree in order to qualify for commissions in the Regular Navy and the Naval Reserve.

A Regular NROTC student may select, subject to the approval of the academic authorities, any major field of study leading to a baccalaureate degree except the following:

Agronomy	General Agriculture	Premedicine
Animal Husbandry	Horticulture	Pretheological
Animal Science	Hotel Administration	Preveterinary
Anthropology	Industrial Arts	Real Estate
Art	Landscape Architecture	Religion
Dairy Husbandry	Medicine	Soil Conservation
Dairy Manufacturing	Music	Soils
Dairy Production	Pharmacy	Theology
Dentistry	Physical Education	Veterinary Medicine
Dramatics	Poultry Husbandry	Wildlife Management
Entomology	Predental	
Floriculture	Prelaw*	

A candidate desiring to study law after completing his NROTC program and his required duty as a commissioned officer will be eligible for the NROTC program provided he enrolls in a 4-year undergraduate curriculum and completes all requirements for a baccalaureate degree and a commission, as well as his required active duty, before enrolling in a school of law.

A Regular NROTC student must satisfactorily complete one year of college mathematics and one year of college physics by the end of his sophomore year. He must achieve proficiency in written and oral expression in English according to University standards.

A Contract NROTC student may select any course of study leading to a baccalaureate or higher degree. Regular and Contract NROTC students who enroll in Engineering for the five-year course will be placed on leaves of absence during the fourth year of college, after the summer cruise.

Contract NROTC students must satisfactorily complete mathematics through trigonometry by the end of the sophomore year. Trigonometry taken in high school satisfies this requirement. They must achieve proficiency in written and oral expression in English according to University standards.

Regular and Contract NROTC students must become proficient in swimming prior to graduation and commissioning.

The following electives are highly desirable and are recommended for Regular and Contract students:

1. A sequence in mathematics, extending through calculus, and including spherical trigonometry.
2. A second year of physical science, such as advanced electricity and elementary electronics, for other than engineering students.
3. A one-year course in personnel management and administration.
4. A one-year course in the "Foundations of National Power," or a comparable course approved by the academic authorities.
5. Two years of a foreign language (modern Romance, Germanic, Slavic, or Oriental), or demonstrate to the academic authorities by examination that he possess a good reading knowledge and can make an acceptable written translation of one of the languages.
6. A course in public speaking.

Practical instruction will be given during summer aboard ship and at an aviation base.

Academic courses. A scale of academic credit for Naval ROTC courses has been established by each school and college of the University. This will enable an NROTC student to qualify for a baccalaureate degree in four years and also to complete the required Naval subjects during the same period.

Scholarships for undergraduate students:

Approximately five hundred Curators Freshman Scholarships and Awards, carrying a stipend equivalent to the incidental fees for one year, are available to Missouri high school seniors who are qualified. Applicants must rank in the upper one-fifth in class average and on the statewide test, and must need financial assistance to attend college. Forty Curators Junior College Scholarships are available to Missouri residents who are graduates of Missouri junior colleges. Application may be made to the Chairman, Curators Scholarships, 130 Jesse Hall, Columbia, Missouri.

A limited number of additional scholarships is available to entering freshmen and undergraduate students in various divisions of the University.

A very limited number of scholarships is available to out-of-state students.

Inquiries should be addressed to the Director of Aids and Awards, 16 Jesse Hall, Columbia, Missouri.

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