CATALOGUE

The following bulletins, all biennial except Parts V and IX, and the Annual Report comprise the Catalogue of the University: bulletin number and date of issue are given in parentheses:

1. Part I: Fellowships, Scholarships, Tutorships and Assistantships, Loan Funds, Main University (No. 3401: January 15, 1934).
2. Part II: College of Pharmacy (No. 3468: February 22, 1934).
3. Part III: School of Business Administration (No. 3410: March 15, 1934).
5. Part V: General Information, Main University (No. 3414: April 7, 1935).
6. Part VI: College of Arts and Sciences and School of Music (No. 3517: May 1, 1935).
8. Part VIII: School of Law (No. 3420: August 1, 1934).
10. Appendix to Parts I-VIII: Annual Register of Students, Main University (Directory of the Main University and of the Extramural Division, No. 3441), with student supplement completing the Long Session of 1934 and including the Summer Session of 1934.

GENERAL PURPOSE OF THE CATALOGUE

The Catalogue of the Main University is intended to give general information about the work of the institutions about to close, and to make available for the ensuing biennium.

As to the courses to be offered, the following Long Session, the Catalogue contains only a preliminary announcement and is superseded by the Announcement of Courses, printed in September of each year.

The Catalogue contains the official regulations for the next two years as to degree requirements, these regulations are not valid beyond this time.
Part VI: College of Arts and Sciences and School of Mines

A student on final trial whose score cannot be determined because of postponed grades is dropped from the rolls of the University.

Final trial is for a definite period, during which the student, with regular attendance upon his classes, must show marked improvement in his work, in default of which he will be terminated with the University.

Class attendance.—The University expects, and has a right to expect, that a student on special observation or final trial will attend classes with regularity, will punctual in reports and other written work, and will make every effort to show marked improvement in his courses. A student unwilling to put forth every effort to keep up with his classes should be withdrawn from the University.

In case of illness or any other imperative reason for absence, a student should file a written explanation of each absence with the Dean to be entered upon his record card.

Return after failure.—A student scholastically dropped from the University by reason of failure in work may register again, if dropped in the Long Session, not earlier than the next Summer Session or the beginning of the next Long Session. A student scholastically dropped at the end of the second semester may register in the next term of the Summer Session or the beginning of the next Long Session earlier than the second semester except as provided under the required minimum of work rules.

A student who has been on special observation or trial or who is forced to withdraw by reason of failure in work in the summer term is considered, subsequently, in good scholastic standing only if he has remained continuously out of school as long as four semesters of the Long Session.

The foregoing requirements and the rules governing special observation or final trial apply to all students, and the Dean is without discretion except in the case of mature students over 25 years of age.

DEGREES

In the College of Arts and Sciences, six degrees are offered: Bachelor of Arts, Bachelor of Science in Home Economics, Bachelor of Science in Geology, Bachelor of Science in Medicine, Bachelor of Science in Mining, and Bachelor of Science in Nursing.

GENERAL REQUIREMENTS

No honorary degree will be conferred by the University of Texas.

No degree will be conferred except publicly and on Commencement Day in June or in August.

It is desired that all candidates attend the Commencement in which their degree is to be conferred. However, those not wishing to do so may secure exemption from attendance by giving the Registrar written notice at least five days in advance and providing the address and postage for mailing the diploma.

College of Arts and Sciences: Degrees

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Graduation under a particular catalogue

No student registering either for the first time or in a later year in the College of Arts and Sciences may obtain a degree in the College of Arts and Sciences according to the requirements of the catalogue then in force.

No student registering in the College of Arts and Sciences in the Summer may obtain a degree in this College according to the requirements of the catalogue applying to the previous Long Session or of the one which is next Long Session.

No student completing in the Division of Extension, either in extension by correspondence or in both ways together, by February 15 of any year twelve semester hours of work counting toward a degree in the College of Arts and Sciences may obtain that degree in accordance with the catalogue applying to that year.

The above provisions, however, are subject to the restriction that all students for a degree in the College of Arts and Sciences must be graduated within six years of the date of the catalogue chosen.

Depts. of

Math

Pure

Math
APPLYING FOR A DEGREE

A candidate for a degree must register in the University and should file for the degree at the time of registration. Application must be made no later than May 1 for the Long Session, or August 1 for the Summer Session.

To apply for a degree, the applicant
(a) Must file with the Dean a "Degree Card." This card will be filed with the Registrar's office upon request of the applicant, and should be returned as early as March 1 of the junior year previous to graduation in May or August. Attention to this matter will save the student trouble and delay in registration.
(b) Must register in the University with the Dean and must not violate before graduation.
(c) Must fill out a "Diploma Card" at registration and get the Dean to sign it.

In advising and in registering students, the Dean and his assistants are to prevent errors. Avoidance of errors is the main purpose of the Degree Card. The student himself is expected to remember that graduation is studied according to some one catalogue, and is expected to study the requirements forth in that one catalogue and to register in accordance therewith and not finally registers entirely at his own risk.

REQUIREMENTS FOR THE DEGREE OF BACHELOR OF ARTS

PLAN I

A. Prescribed Work

1. Twelve semester hours in English (English 1, and 12 or 13).
2. Six semester hours in mathematics or six semester hours in Latin (Latin 1) or six semester hours in Greek (Greek 1 if no units in Greek were entered toward admission; Greek 12 if two units were so credited). A student who offers a course in one of the classical languages in satisfaction of this requirement may not offer the same course toward the satisfaction of Requirement 3.
3. Twelve semester hours of numbered courses in one foreign language, either ancient or modern. In satisfying this requirement Latin must be a numbered course.
4. Twelve semester hours in the natural sciences, six being Chemistry 3 or 5 or Physics 1, 2, or 9, and six being Botany 1, or Geology 1, or Zoology 1, or 6. Any one may be taken first.
5. Three semester hours in American Government (Government 111 or Government 115).
6. Three semester hours in economics; recommended, but not compulsory for women.
7. Three semester hours in philosophy or psychology.
8. The courses set down in one of the groups below under C.
9. Thirty semester hours of advanced courses. Courses of senior rank are as twice their value in satisfying this requirement, but not more than 15 semester hours of senior courses may be counted in this manner. (See Note.)

B. Special Requirements

The student must make an average of at least fifteen points per semester in the courses taken at the University which are required and counted toward his degree, an A grade on a semester hour counting as 21 points; a B as 18 points; a C as 15 points; a D as 12 points; an E, an F, or a G as zero. A student whose average is at least twenty points per semester hour with an A on the major examination is graduated "with highest honors"; a student whose average is at least nineteen points per semester hour with an A on the major examination is graduated "with high honors"; a student whose average is at least eighteen points per semester hour with at least a B on the major examination is graduated "with honors."

In the case of students majoring in departments that do not require a major examination, honors are determined as in the preceding paragraph except that the grade in the major examination there is substituted a grade by the major department, for the student's work considered as a whole.

A student majoring in a department which requires a major examination must pass a general four-hour written examination in his major subject on or before the second of his senior year, or on May 7 or August 10 of the completion of the requirement in the major subject. Not later than two weeks before the date set for the examination the Dean sends to the Chairman of the several departments a list of students eligible for the examination. The Chairman of the department in which the major is taken to be the place of the examination and supervises the giving of it. August candidates may take this examination in May or on August 10. Students taking in examination will not be counted as absent from classes while actually taking it. In the modern foreign language group the examination may be adapted to test the candidate's command of the spoken language. In setting the examination the faculty of the department will take into account the number of hours required in the regular semester examinations. A student who fails to pass the major examination may take the examination during May or August, but in no case will a special examination be given.

The student must, before May 15 of his senior year if a June candidate, or before August 1 of an August candidate, show such ability to write clear and English as to satisfy the Committee on Students' Use of English. To the habitual use of clear and correct English, the written work...
In addition to these requirements, the student must also meet the following criteria:

1. Classics (Greek or Latin) Group
   - **Major Subject**: Twenty-four semester hours in Greek or twenty semester hours in Latin. In either case at least twelve semester hours are taken in advanced courses.
   - **Minor Subject**: Either a twelve semester hours of advanced courses in a second foreign language, preferably Greek if the major subject is Latin.

2. English Group
   - **Major Subject**: Eighteen semester hours of advanced courses in English.
   - **Minor Subject**: Twelve semester hours of numbered courses in Latin or Greek or French or Italian.

3. Pure and Applied Mathematics Group
   - **Major Subject**: Thirty semester hours in mathematics, of which at least thirty must be in advanced courses.
   - **Minor Subject**: Eighteen semester hours in a second subject, preferably either philosophy or chemistry or economics.

4. Modern Foreign Languages Group
   - **Major Subject**: Twenty-four semester hours of numbered courses in French or Spanish or Czech.
   - **Minor Subject**: Twelve semester hours of numbered courses in a second foreign language (either ancient or modern), and either (a) six semester hours of advanced courses in this second foreign language, or (b) six semester hours of advanced courses in a third foreign language, or (c) six semester hours of advanced courses in English, or (d) six semester hours of advanced courses in a second subject.

A student who has completed at least sixty semester hours of advanced courses may be counted in foreign language.

**Natural Science (Botany and Bacteriology, Chemistry, Geology, Physics, and Zoology) Group**

- **Major Subject**: Twenty-four semester hours in one natural science.
- **Minor Subject**: Twelve semester hours in a second natural science, except that the minor subject be physics, in which case there must be twelve semester hours of advanced courses in mathematics and six semester hours in chemistry; or unless the major subject be chemistry, there must be included at least six semester hours in general chemistry, six in quantitative analysis, six in organic chemistry, four in physical chemistry, and at least twelve of the twenty-four hours must be advanced.

4. In the case where a student does not fulfill the requirements laid down in the above groups, the student must complete at least six semester hours of advanced courses at the Main University.
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19.  Extempore Speaking.—Theory and methods. Training in thinking and speaking before an audience. Class exercises in speaking extemporaneously on assigned topics. The organization of original material; composition in public speaking and adaptation of speaking manner to subject matter. Prerequisite: Sophomore standing. MWF 9; Mr. Griscom. (Given as 319K after 1934–1935.)

319f.  Extempore Speaking.—Theory and methods. Training in thinking and speaking before an audience. Class exercises in speaking extemporaneously on assigned topics. The organization of original material; composition in public speaking and adaptation of speaking manner to subject matter. Prerequisite: Sophomore standing. Section 1, MWF 9; Section 2, TTS 10; Mr. Griscom (1935–1936); Mr. Rousse. (Formerly last half of Public Speaking 19.)

319f.  Extempore Speaking.—Repetition of Public Speaking 319f. TT. Mr. Rousse.

319Ks.  Extempore Speaking.—Theory and methods. Training in thinking and speaking before an audience. A continuation of Public Speaking 319. Prerequisite: Public Speaking 319. Section 1, MWF 9; Section 2, TTS 10; Mr. Griscom. (Formerly last half of Public Speaking 19.)

For Undergraduates and Graduates.

220f.  Advanced Argumentation and Debate.—Argumentation and debate in high schools and colleges. Analysis of current debate questions. Debate, extemporaneous speaking, and declamations. Prerequisite: Six semester hours of public speaking and junior standing. TT. Mr. Rousse. (Previously Public Speaking 316.)

221f.  Speech Problems.—Speech training in secondary schools. Emphasis upon the teaching of public speaking in high school and college. Organization and direction of school literary and public speaking societies, with study and practice in parliamentary procedure. Prerequisite: Six semester hours of sophomore courses in public speaking and junior standing. TT. Mr. Rousse. (Previously Public Speaking 315.)

25.  Seminar in Public Speaking.—Special study of subjects in the field of public speaking and essay contests. Class exposes the discussion of assigned topics in the field of the subject studied. Prerequisite: Six semester hours of sophomore courses in public speaking. TT. Mr. Griscom. (Alternates with Public Speaking 27; given in 1935–1936.)

27.  Advanced Public Speaking.—For advanced students interested in professional work. Preparation and delivery of addresses for special occasions, including critical analysis of masterpieces such as great debates and major addresses. Prerequisite: Six semester hours of sophomore courses in public speaking; junior standing. Hours to be arranged. Mr. Griscom. (Alternates with Public Speaking 25; omitted in 1935–1936.)

College of Arts and Sciences: Pure Mathematics

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Oratory.—For students interested in intersociety and intercollegiate speech contests. Rhetoric of persuasive speech; oratorical masterpieces; methods in writing and delivery of various types of public addresses. Prerequisite: Twelve semester hours in public speaking. TT. Mr. Griscom.

History of American Oratory.—A study of the significant speeches and speakers in American history; examination of the historical, social, and ethical background of these speeches. Special attention is given to a few of the leaders as interpreters of their times. Oral and written reports required. Prerequisite: Public Speaking 326. TT. Mr. Griscom.

DEPARTMENT OF PURE MATHEMATICS

ASSOCIATE PROFESSOR BATCHELDER, Chairman

ASSOCIATE PROFESSORS—MOORE, DODD, ETTLINGER; ASSOCIATE PROFESSORS—ANDERSON, H. H. PORTER, MORRISON, G. P. BATTLE; INSTRUCTORS—BAYTLE, GREENWOOD, JONES, KLIPPE, VICKERY

For requirement of six semester hours in mathematics for a degree in the College of Arts and Sciences may be satisfied by any two of the following courses: Pure Mathematics 301, 302, 303, and 304.

Students without credit for trigonometry are required to take Pure Mathematics 301. This may also be taken by students with more than fifteen credits, assigning trigonometry (however, note the following paragraph). But students with only fifteen credits, including trigonometry, are required to take Pure Mathematics 302. Pure Mathematics 302 may, indeed, be taken by all students for credit for trigonometry; and it is recommended for all such students who are interested in mathematics or its applications.

For geometry and trigonometry, either or both, accepted as entrance credit, as may be counted as one semester hour toward a degree, provided (1) subjects are in excess of full admission, and (2) an average grade of at least 2.5 in all six semester hours of higher mathematics in the University.

The Department of Pure Mathematics will not recommend for high-school credit in mathematics persons who have credit for less than eighteen semester hours in the subject.

Students who plan to major in mathematics have a choice of several lines of study corresponding to the different subdivisions of the subject. In addition to Pure Mathematics 13 (calculus), which should be included in every group, the student interested in analysis may take Pure Mathematics 21, 23, 24, 83, 84, 85, 86, 92, 93, or 96; in algebra and number theory, 315, 323, 335, 380, 381, 382, 82K, or 91; in foundations of mathematics and point-set theory, 323, 88, 89, or 90; in geometry, 327, 328, or 330; in probability, 45, 47, or 63K.

[Note on leave for the first semester of 1934–1935.]

[Note on leave for the session of 1933–1934.]
For Undergraduates

301–302. Plane Trigonometry and Analytic Geometry.—Pure Mathematics 301 and Applied Mathematics 304 may not both be counted for credit by the same student; nor may Pure Mathematics 302 and Applied Mathematics 301 both be counted for credit by the same student.

301s. Plane Trigonometry.—Pure Mathematics 301 and Applied Mathematics 304 may not both be counted for credit by the same student.

302f. Analytic Geometry.—For students who want only one semester of analytic geometry. Prerequisite: Pure Mathematics 301. Pure Mathematics 302 and Applied Mathematics 305 may not both be counted for credit by the same student.

302–303. Analytic Geometry.—Prerequisite: Trigonometry. Pure Mathematics 302 and Applied Mathematics 305 may not both be counted for credit by the same student.


304s. College Algebra.—Not given in 1933–1934.

13. Calculus.—Recommended to students intending to continue mathematics and to students of physics and chemistry. Prerequisite: Pure Mathematics 302. If before taking Pure Mathematics 13 the student has credit for one or twelve semester hours in mathematics, Pure Mathematics 13 will count as three or six advanced semester hours. Pure Mathematics 13 and Applied Mathematics 13 may not both be counted for credit by the same student. Section 1, MWF 11; Section 2, TTS 11.

315s. Theory of Equations.—Determinants, symmetric functions, theory of polynomials, etc. Recommended as a fundamental course for students specializing in mathematics. Prerequisite: Pure Mathematics 302. MWF 11. Mr. Vanoover (1934–1936), Mr. Batchelder (1933–1934). (Not given in 1935–1936.)

18. The Mathematics of Finance.—Compound interest, annuities, amortization, sinking funds, depreciation, valuation of bonds, mortality tables, insurance, and pensions. Prerequisite: Six semester hours in mathematics. TT 9, Mr. Dunn. (May be counted as a course in business administration 1 taken after junior standing is attained.)

For Undergraduates and Graduates

21. Advanced Calculus.—Rigorous treatment of the foundations of calculus. The convergence of infinite series, improper integrals, differential equations, and other topics. Prerequisite: Pure Mathematics 13. If before taking Pure Mathematics 21 a student has credit for three or six semester hours of advanced courses in mathematics, this course will count as a senior course to the extent of three or six semester hours. TTS 11. Mr. Moore (1933–1934 and 1935–1936), Mr. Kippeler (1934–1935).

321. Introduction to the Foundations of Algebra.—Study of the axioms of algebra on which algebra is based. Prerequisite: Twelve semester hours in mathematics. Counts in the same manner as Pure Mathematics 21. Mr. Vanderhur. (Not given in 1933–1934, 1934–1935 or 1935–1936.)

321f. Rules and Compass Constructions.—Critical study of the constructions of plane geometry, with numerous applications. Prerequisite: Twelve semester hours in mathematics. Counts in the same manner as Pure Mathematics 21. Mr. Ettlinger. (Not given in 1935–1936.)

322. Descriptive Geometry.—The mathematical basis of descriptive geometry, treated by the Mongeau method. Prerequisite: Twelve semester hours in mathematics. Counts in the same manner as Pure Mathematics 21. Mr. Ettlinger. (Given for the first time in 1934–1935; not given in 1935–1936.)

323. Introduction to Modern Analytic Geometry.—Space transformations and invariants. The methods will be largely analytic. Prerequisite: Pure Mathematics 303 and 13, the latter of which may be taken in parallel. Counts in the same manner as Pure Mathematics 21. MWF 10. Mr. Porter, Mrs. Fiore (1934–1935). (Not given in 1933–1934 or 1935–1936.)

324. Teaching Problems in Mathematics.—A survey and investigation of the teaching problems of elementary and junior college mathematics. Prerequisite: Twelve semester hours in mathematics. Counts in the same manner as Pure Mathematics 21. WF 4:5:36. Mr. Porter.


Section 1: College of Arts and Sciences: Pure Mathematics

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Theory of Functions of Real Variables.—Prerequisite: Six semester hours of undergraduate or graduate courses in mathematics and consent of the instructor. Not given in 1933-1934 or 1935-1936.

Analytic Probability.—Foundations of probability from the standpoint of analysis. Prerequisite: Pure Mathematics 21 or 83. Consent of instructor. Mr. E. T. Whittaker. (Not given in 1934-1935.)

Analytic Functions.—Prerequisite: Pure Mathematics 21 and consent of instructor. Mr. Porter. (Not given in 1934-1935 or 1935-1936.)


Introduction to Modern Analysis.—Designed to give the student some idea of the scope and power of function-theoretic methods and some insight into the leading ideas of modern mathematics. Prerequisite: Pure Mathematics 21 or 83. Consent of instructor. Mr. Porter. (Not given in 1933-1934, 1934-1935, or 1935-1936.)

Continuous Groups.—Lie theory of continuous groups, infinitesimal transformations, criteria for invariance of certain ordinary and partial differential equations under infinitesimal transformation, differential invariants, and equivalence of polynomial invariants of binary forms. Prerequisite: Pure Mathematics 21 or 22 or Applied Mathematics 325 and 326. Mr. Cooper. (Given in 1935-1936 or 1934-1935.)

Foundations of Mathematics.—Critical study of the foundations of mathematics. Consent of the instructor. A considerable degree of mathematical maturity will be required. Mr. Moore. (Not given in 1933-1934.)

Differential and Continuous Transformations.—Critical study of point sets, regions, etc. Consent of instructor. Mr. Moore. (Given in 1933-1934 or 1934-1935.)

Introduction to Point-set Theory.—Consent of the instructor.

Theory of Linear Associative Algebras.—Prerequisite: Pure Mathematics 21 and consent of the instructor. Mr. van Vleck. (Not given in 1933-1934, 1934-1935, or 1936-1937.)

Partial Differential Equations.—Recommended for advanced students in mathematics and engineering. Prerequisite: Pure Mathematics 22 or equivalent and one of the following: Applied Mathematics 29 or 92. Mr. E. T. Whittaker. (Not given in 1933-1934, 1934-1935, or 1936-1937.)

Advanced Topics in Mathematical Physics.—Prerequisite: Six semester hours of undergraduate courses in mathematics or physics and graduate standing. Mr. E. T. Whittaker. (Not given in 1934-1935 or 1935-1936.)

Theory of Relativity.—Study of the theory of space and time developed by Einstein and others, with applications to dynamics and other branches of physics.