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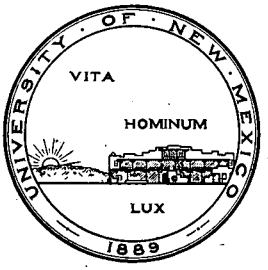
CATALOGUE SERIES NO. 30. WHOLE NO. 86

THE UNIVERSITY OF NEW MEXICO

TWENTY-SIXTH ANNUAL CATALOGUE
1916-1917



ANNOUNCEMENTS
1917-1918

ALBUQUERQUE
PUBLISHED BY THE UNIVERSITY
FEBRUARY, 1917

PRESS OF THE EVENING HERALD
ALBUQUERQUE, N. M.
1917

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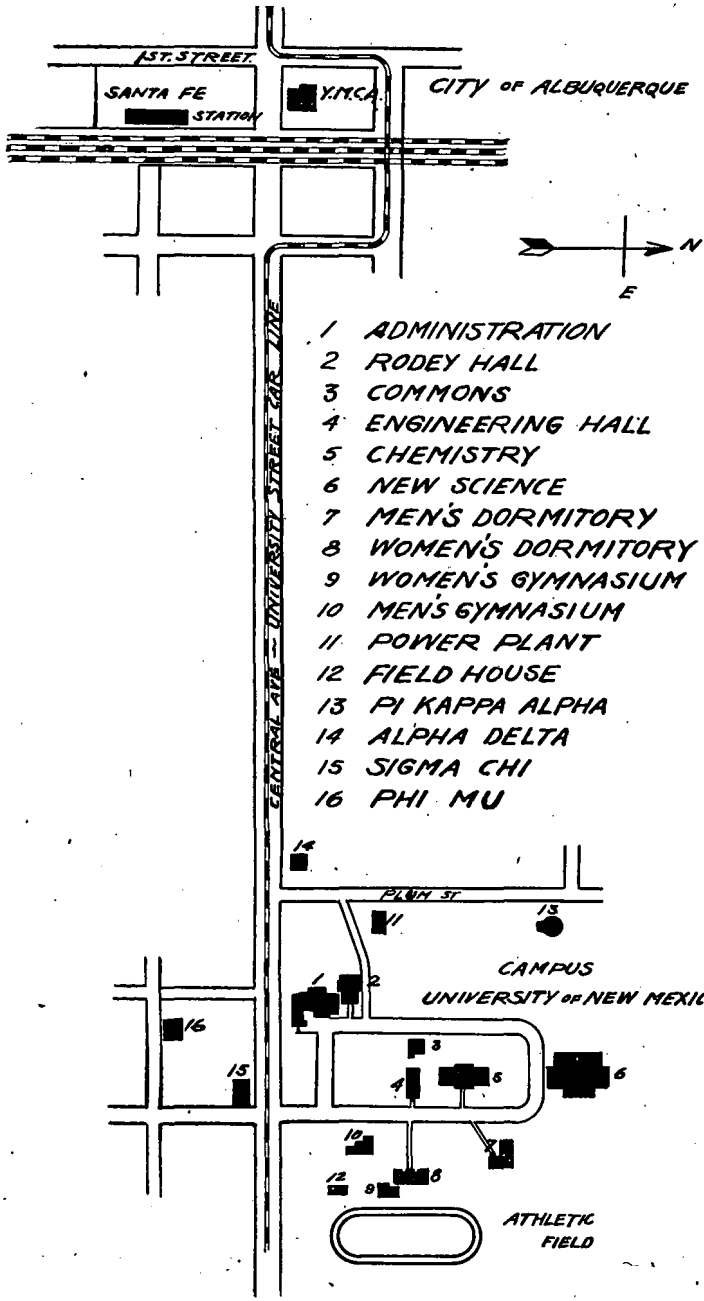
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2 RODEY HALL
3 COMMONS
4 ENGINEERING HALL
5 CHEMISTRY
6 NEW SCIENCE
7 MEN'S DORMITORY
8 WOMEN'S DORMITORY
9 WOMEN'S GYMNASIUM
10 MEN'S GYMNASIUM
11 POWER PLANT
12 FIELD HOUSE
13 PI KAPPA ALPHA
14 ALPHA DELTA
15 SIGMA CHI
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UNIVERSITY CALENDAR.

1917.

August 20, Monday—Registration Day for new students resident in Albuquerque.

August 21, Tuesday—Registration Day for all other new students.

August 22, Wednesday—Instruction begins in all departments.

September 3, Monday—Labor Day, holiday.

October 1, Monday—Last day for matriculation of candidates for Bachelor's degrees in 1918, and Last day for announcing subjects of graduation theses.

November 29-December 2, Thursday-Sunday—Thanksgiving Recess.

December 13-19, Thursday-Wednesday—Registration Week for old students for next semester.

December 20-22, Thursday-Saturday—End-of-Semester Examinations.

1918

January 8, Tuesday—Registration Day for new students.

January 9, Wednesday—Instruction begins in all departments.

February 22, Friday—Washington's Birthday, holiday, and Annual Gymnasium Exhibition.

April 24, Wednesday—Last day for handing in graduation theses.

May 10-11, Friday-Saturday—Annual Interscholastic Track and Field Meet.

May 6-11, Monday-Saturday—Registration Week for old students for next semester.

May 12, Sunday—Baccalaureate Sunday.

May 13, Monday—Phi Kappa Phi Address, and University Concert.

May 14, Tuesday—Last University Assembly, Commencement, Alumni Association Annual Dinner and Meeting, and University Dramatic Club Play.

May 15-18, Wednesday-Saturday—End-of-Semester Examinations.

COLLEGES, SCHOOLS, COURSES, AND DIVISIONS OF THE UNIVERSITY.

COLLEGE OF ARTS, PHILOSOPHY, AND SCIENCES.
- COURSE IN COMMERCE.
- COURSE IN LATIN-AMERICAN AFFAIRS.
- COURSE PREPARATORY TO LAW.
- COURSE PREPARATORY TO MEDICINE.

GRADUATE SCHOOL OF ARTS, PHILOSOPHY, AND SCIENCES.

COLLEGE OF FINE ARTS.
- COURSE IN PIANO.
- COURSE IN VIOLIN.
- COURSE IN VOICE.

COURSES IN EDUCATION.
- FOUR-YEAR COURSE IN EDUCATION.
- TWO-YEAR COURSE IN EDUCATION.

COLLEGE OF ENGINEERING.
- COURSE IN CHEMICAL ENGINEERING.
- COURSE IN CIVIL ENGINEERING.
- COURSE IN ELECTRICAL ENGINEERING.
- COURSE IN GEOLOGICAL ENGINEERING.
- COURSE PREPARATORY TO MECHANICAL ENGINEERING.
- COURSE PREPARATORY TO MINING ENGINEERING.
- COURSE PREPARATORY TO SANITARY ENGINEERING.

COURSE IN HOME ECONOMICS.

DIVISION OF UNIVERSITY EXTENSION.

DIVISION OF PHYSICAL TRAINING AND ATHLETIC SPORTS.

DIVISION OF PREPARATORY STUDIES.

REGENTS OF THE UNIVERSITY.

HIS EXCELLENCY THE GOVERNOR OF NEW MEXICO, Ex-Officio.
THE STATE SUPERINTENDENT OF PUBLIC INSTRUCTION, Ex-Officio.
GEORGE L. BROOKS.....Albuquerque
J. A. REIDY, M. D. .....Albuquerque
HON. HOWARD L. BICKLEY.....Raton
HON. NATHAN JAFFA.....Roswell
W. G. HAYDON.....Las Vegas

OFFICERS OF ADMINISTRATION.

REGENTS.

GEORGE L. BROOKS.....President
J. A. REIDY, M. D. .....Secretary and Treasurer

UNIVERSITY.

Title, name, office, office hours, residence.

President: DAVID ROSS BOYD. Adm. 11, 10-12. 123 South High.

Dean: CHARLES E. HODGIN. Adm. A, 11-12. University Hill.

Registrar: LYNN BOAL MITCHELL. Adm. 23, 10 and 2. University Hill.

Secretary: JOSEPHINE S. PARSONS. Adm. 12, 1-2. 901 West Tijeras.

Librarian: DELLA J. SISLER. Adm. 14, 9-12. University Hill.

Director of the College of Fine Arts: E. STANLEY SEDER. Ro., M T Th F 1-2. 319 South Third.

Chairman of the Courses in Education: CHARLES E. HODGIN. Adm. A, 11-12. University Hill.

Chairman of the Course in Home Economics: FRANCES LATHROP. Adm. B. University Hill.

Director of the Division of University Extension: CLARENCE E. BONNETT. Adm. 22, T Th 10 and M F 11. 120 South Edith.

Director of the Division of Physical Training and Athletic Sports: RALPH F. HUTCHINSON. Gym., 11-12. University Hill.

Student Adviser: ETHEL A. HICKEY. Adm. 25, T Th 10 and M W F 1. 111 North Walter.

Proctor of the Men's Dormitory: A. W. WAND. Adm. 30, 8 and M W F 2.

Matron of the Women's Dormitory: FRANCES LATHROP. Ho. 8, 1-2. University Hill.

Executive Secretary to the President, and

Student Employment Secretary: A. S. HUNT. Adm. 10, 10-12. University Hill.

FACULTY AND OTHER OFFICERS OF INSTRUCTION.

Name, title, office, office hours, residence, professional career. Adm.—Administration Building. Ro.—Rodey Hall. Eng.—Engineering Hall. Chem.—Chemistry Building. Ho.—Hokona. Gym.—Men's Gymnasium. Names of officers are arranged alphabetically in groups according to the year of appointment to present title.

DAVID ROSS BOYD, President.

Adm. 11, 10-12. 123 South High.

A. B., College of Wooster, 1878, A. M., 1881, Ph. D. (Psychology and Education), 1896. Superintendent of Schools, Van Wert, Ohio, 1878-1888; Superintendent of Schools, Arkansas City, Kansas, 1888-1892; President, University of Oklahoma, 1892-1908; Superintendent of Education, Presbyterian Board of Home Missions, 1908-1912; President, University of New Mexico, 1912—. Phi Kappa Phi.

CHARLES E. HODGIN, Professor of, and Chairman of the Courses in, Education, and Dean.

Adm. A, 11-12. University Hill.

Graduate, Indiana State Normal School, 1881; B. Pd., University of New Mexico, 1894; Graduate Student, University of California, 1903-1904. Instructor in Education, Richmond (Indiana) Normal School, 1882-1884; Principal, Albuquerque Academy, 1887-1891; Superintendent of Public Schools, Albuquerque, 1891-1897; Principal of the Normal School, University of New Mexico, 1897-1903; Professor of Education and Dean, 1904—. Foreign travel, 1911-1912.

CHARLES T. KIRK, Professor of Geology.

Eng. 6 A, M T W Th 11. 406 South High.

B. S. (Geology), University of Oklahoma, 1904, M. A. (Geology), 1905; Ph. D. (Geology), University of Wisconsin, 1911. Superintendent of Schools, Norman, Oklahoma, 1904; Instructor in Geology, State School of Mines, Butte, Montana, 1906-1908; Fellow and Extension Instructor in Geology, University of Wisconsin, 1908-1910; Instructor and Assistant Professor of Geology, Hunter College, New York, 1910-1913; Professor of Geology, University of New Mexico, 1913—. Field Assistant, Statistician, Junior Geologist, U. S. Geological Survey, 1903-1911; Geologist, Oklahoma Oolite Stone Co., Oklahoma City, Oklahoma, 1906; Mine research, Butte, Montana, 1909; Director, University of New Mexico Land Survey, 1913—; State Geologist, New Mexico, 1913—; consultation work. Sigma Xi, Phi Kappa Phi, Geological Society of America, American Institute of Mining Engineers, New York Academy of Sciences (Secretary, Geologic Section, 1913), New Mexico Geographic Society (Secretary, 1915-1916), New Mexico Association for Science (President, 1915-1916), New Mexico Committee of American Mining Congress.

LYNN BOAL MITCHELL, Professor of the Latin and Greek Languages and Literatures, and Registrar.

Adm. 23, 10 and 2. University Hill.

B. A., Ohio State University, 1903; A. M., Cornell University, 1904, Ph. D., 1906. Graduate Scholar in Latin and Greek, Cornell University, 1903-1905, Teaching Fellow, 1905-1906; Professor of Latin and Greek, William and Vashti College, 1908-1912, Registrar, 1911-1912; Associate Professor of Latin and Greek, University of New Mexico, 1912-1913, Professor, 1913—, Registrar, 1915—. Phi Beta Kappa, Phi Kappa Phi.

JOHN D. CLARK, Professor of Chemistry.

Chem. 2, 9-10 and 2-3. University Hill.

B. S., New Hampshire College of Agriculture and Mechanic Arts, 1906, M. S., 1907; Ph. D., Leland Stanford Junior University, 1914. Assistant Professor of Chemistry, University of New Mexico, 1907-1908, Associate Professor, 1908-1913, Professor 1913—, Dean of Summer Session, 1912; Associate Professor of Chemistry, University of California, Summer Sessions, 1910, 1912. Sigma Xi; Phi Kappa Phi; American Chemical Society; Fellow, American Association for the Advancement of Science; Geological and Mining Society of American Universities; Associate Member, Naval Consulting Board.

CLARENCE ELMORE BONNETT, Professor of Economics and Government, and Director of Division of University Extension.

Adm. 22, T Th 10 and M F 11. 120 South Edith.

Student, Grand River College, 1901-1903; B. Pd., Missouri State Normal School, 1906; B. S. in Education, University of Missouri, 1908, A. B., 1909, Graduate Student in Economics, 1909-1910; University of Chicago, 1910-1913. Teaching Fellow, University of Missouri, 1909-1910; Assistant in Economics, University of Chicago, 1910-1913, Extension Instructor, 1909-1914; Professor of Social Science, University of New Mexico, 1913—. Psi Xi.

ASA ORRIN WEESE, Professor of Animal Biology and Botany.

Chem. 8, 1-2. 1213 East Central.

B. A., University of Minnesota, 1909, Graduate Student, Summer Sessions, 1909, 1910; University of California, Summer Session, 1913; University of Chicago, Summer Quarter, 1914; University of Illinois, Summer Session, 1916. Assistant Professor of Biology, University of New Mexico, 1911-1913, Associate Professor, 1913-1914, Professor, 1914—. Sigma Xi, Phi Kappa Phi.

JOSEF FREDRIK NELSON, Professor of the German and Romance Languages and Literatures.

Adm. 10, M W 9. Occidental Building.

A. B., University of Wyoming, 1896; B. D., Chicago Theological Seminary, 1898; A. M., University of Chicago, 1900. Professor of Romance Languages, Elmira College, 1907-1909; Assistant in Romance

Languages, University of Missouri, 1909-1912; Professor of the German and Romance Languages and Literatures, University of New Mexico, 1914—. Phi Kappa Phi.

JESSE L. BRENNEMAN, Professor of Physics and Electrical Engineering.

Eng. 3a, T W Th F 9 and M T W Th F 11. 107 So. Walter.

B. S. in Physics, University of Chicago, 1908; E. E., University of Wisconsin, 1913. Professor of Physics and Applied Mathematics, Westminster College, 1909-1911; Testing Department, General Electric Company, Schenectady, New York, 1913-1914; Associate Professor of Physics and Electrical Engineering, University of New Mexico, 1914-1915, Professor, 1915—. American Institute of Electrical Engineers, New Mexico Representative on Naval Board for Industrial Preparedness, Phi Beta Kappa, Phi Kappa Phi.

WILL E. EDINGTON, Professor of Mathematics.

Adm. 31, —. 202 North High.

A. B., Indiana State Normal School, 1909; Graduate Student, University of Chicago, 1912-1913; University of Colorado, 1913-1914. Assistant Professor of Mathematics, Indiana State Normal School, 1911-1912; Assistant in Mathematics, University of Colorado, 1913-1914; Associate Professor of Mathematics, University of New Mexico, 1914-1915, Professor, 1915—; Associate Professor of Mathematics, University of Colorado, Summer Session, 1915. American Mathematical Society.

PROCTOR FENN SHERWIN, Professor of Rhetoric and the English Language.

Adm. 24, 11-12. University Hill.

B. A., St. Lawrence University, 1912; Graduate Student in English, University of Chicago, Summer Quarter, 1913, Spring and Summer Quarters, 1914. Associate Professor of Rhetoric and the English Language and of History, University of New Mexico, 1914-1915, Professor of Rhetoric and the English Language, 1915—. Phi Kappa Phi.

DEAN A. WORCESTER, Professor of Psychology and Philosophy.

Eng. 1a, T Th 9. University Hill.

A. B., University of Colorado, 1911, Graduate Student, Summer Sessions, 1912,1915. Supervisor of Schools, District of Zamboanga, Philippine Islands, 1913-1914; Associate Professor of Psychology and Philosophy, University of New Mexico, 1914-1915, Professor, 1915—. Assistant, Juvenile Psychopathic Institute, Chicago, 1916. Phi Kappa Phi.

ETHEL A. HICKEY, Professor of English Literature, and Student Adviser.

Adm. 25, T Th 10 and M W F 1. 111 North Walter.

B. A., Kansas University, 1898. Instructor in English, University of New Mexico, 1901-1914, Associate Professor of English Literature, 1914-1916, Professor, 1916—.

ROSCOE R. HILL, Professor of History.

Adm. 21, M Th 10. 116 South High.

A. B., Eureka College, 1900; Graduate Student in History, University of Chicago, 1903-1904, Winter, Spring, and Summer Quarters, 1909; Columbia University, 1909-1910. Principal of private school, Matanzas, Cuba, 1904-1908; Research Associate, Carnegie Institute of Washington, on mission to Spanish Archives, 1911-1913; Lecturer in History, Columbia University, 1913-1914, Extension Instructor, 1914-1915, Instructor, Summer Session, 1915; Instructor, University of California, Summer Sessions, 1913, 1916; Instructor in History, New York University, Summer Session, 1915; Associate Professor of History, University of New Mexico, 1915-1916, Professor 1916—. Phi Kappa Phi.

JOSEPHINE S. PARSONS, Professor of Romance Languages and Literatures, and Secretary.

Adm. 12, 1-2. 901 West Tijeras.

B. A. in Romance Languages, University of New Mexico, 1904; Graduate Student in Romance Languages, University of California, 1904-1905. Head of Commercial Department, University of New Mexico, 1893-1912, Associate Professor of Romance Languages and Literatures, and Secretary, 1912-1916, Professor. 1916—

DELLA J. SISLER, Librarian, and Professor of Library Economy.

Adm. 14, 9-12. 1717 East Gold.

B. L. S., University of Illinois, 1905; Graduate Student, University of Colorado, Summer Session, 1914; University of Wisconsin, Summer Session, 1916. Library Cataloguer, Kansas State Normal School, 1900-1903; Librarian and Instructor in History, University of New Mexico, 1905-1906, Librarian and Associate Professor of Library Economy, 1906-1916, Professor, 1916—. Phi Kappa Phi.

ANTHONY W. WAND, Professor of Civil Engineering, and Proctor.

Adm. 30, 8 and M W F 2. University Hill.

B. S., University of Illinois, 1912. Assistant Superintendent of Construction, General Cement Gun Company, Chicago, Illinois, 1912-1914; Instructor in Civil Engineering, University of New Mexico, 1914-1915, Associate Professor, 1915-1916, Professor, 1916—. Phi Kappa Phi.

FRANCES E. LATHROP, Associate Professor of, and Chairman of the Course in, Home Economics, and Matron.

Adm. B and C. Ho. 8, 1-2.

Ph. B., Des Moines College, ——; Student, University of Colorado, Summer Session, ——; Iowa Agricultural College, Summer Session, ——; B. S., Colorado Agricultural College, 1915. Associate Professor of Home Economics, University of New Mexico, 1916—.

ARNO K. LEUPOLD, Associate Professor of Practical Mechanics.

Eng. 7, 9. University Hill.

B. S. in E. E., University of New Mexico, 1914; Graduate Student,

University of Colorado, Summer Session, 1916. Instructor in Practical Mechanics, University of New Mexico, 1914-1916; Associate Professor, 1916—.

E. STANLEY SEDER, Assistant Professor of Piano and Theory of Music, and Director of the College of Fine Arts.
Ro., M T Th F, 1-2. 319 South Third.
B. A., University of New Mexico, 1914. Assistant Professor of Piano and Theory of Music, and Director of the College of Fine Arts, University of New Mexico, 1914—. Fellow, American Guild of Organists; Phi Kappa Phi.

RALPH F. HUTCHINSON, Director of Division of Physical Training and Athletic Sports.
Gym., 11-12. University Hill.
Student in Civil Engineering, Princeton University, 1898-1900; in Physical Training and Athletic Sports, Summer, 1915. Director of Physical Training and Athletic Sports, Dickinson College, 1901-1902; Assistant Head Coach of Football, Princeton University, 1902; Coach of Baseball, University of West Virginia, 1903; Director of Outdoor Athletics, University of Texas, 1903-1906; Director of Physical Training and Athletic Sports, University of New Mexico, 1911—.

PAUL H. DAUS, Instructor in Mathematics.
Adm. 31, 3-4. University Hill.
S. B., University of Chicago, 1916. Instructor in Mathematics, University of New Mexico, 1916—. Phi Beta Kappa.

IRA B. LANPHIER, Instructor in Civil Engineering.
Eng. 3, T Th F 9-10. University Hill.
B. S., South Dakota State College, 1915; C. E., University of Wisconsin, 1916. Instructor in Civil Engineering, University of New Mexico, 1916—.

ORRIN L. PADEL, Instructor in Voice.
Ro., —. 612 South Edith.
Student, Coe College, 1912-1913. Instructor in Voice, University of New Mexico, 1916—.

E. LEROY YOTT, Instructor in Violin.
Ro., —.
Student, American Conservatory, Chicago, Illinois, 1910-1911, Summer, 1915. Instructor in Violin, University of New Mexico, 1916—.

COMMITTEES OF THE FACULTY.

The first named member in each committee is chairman.

Admission and Standing: MITCHELL, WEESE, BRENNEMAN.

Schedule and Curriculum: KIRK, BONNETT, MITCHELL, BRENNEMAN, WAND.

Graduate Study: CLARK, HILL, KIRK.

Catalogue: SHERWIN, WORCESTER, WAND.

Printing and Publications: HODGIN, HICKEY, SHERWIN.

Library: SISLER.

Athletics and Eligibility: EDINGTON, WORCESTER, HUTCHINSON.

Athletic Council (Faculty Representatives): WEESE, CLARK.

Literary Contests (Faculty Representative): WORCESTER.

Student Affairs: CLARK, HICKEY, WEESE, SHERWIN.

Public Exercises (Commencement, etc.): CLARK, HICKEY, SEDER.

HISTORY.

New Mexico was acquired from Mexico by the treaty of Guadalupe Hidalgo, February 2, 1848, and held under military control until the first territorial legislature was assembled in 1850. During the early years of territorial existence conditions were unfavorable for educational development and little was accomplished in the scattering efforts to establish schools of any kind. The centers of population were small and far apart, in the sparsely settled territory of that day. Unfriendly Indians demanded much time and attention from citizens. The passing between New Mexico and the states was infrequent, mail coming at long intervals. The expense of getting teachers was great, and there was a disposition on the part of many citizens to oppose public education. In the face of this discouraging situation different legislatures sent memorials to the Federal Congress, making strong appeals for direct government aid in establishing some kind of educational facilities in New Mexico. Congress early made land appropriations (which brought in no funds) and turned a deaf ear to every appeal, not even making provision for teaching English to the Spanish-speaking people gathered under the American flag.

Various inadequate school laws were passed by different legislatures from time to time, but nothing was done to provide for higher educational institutions until 1889, when a bill introduced by the Honorable Bernard S. Rodey was passed by the Legislative Assembly, creating the University of New Mexico, to be located at Albuquerque. The new institution opened in rented rooms as a summer normal school, June 15, 1892, beginning regular instruction September 21, in the first building erected on the campus.

The Honorable E. S. Stover, a member of the charter Board of Regents, was made the nominal president, and served five years. During this term Principal George S. Ramsay was in direct charge of the institution for two years, followed by Professor Hiram Hadley, Vice President in charge from 1894 to 1897. During this administration, the period of organization, there were many difficulties to encounter. Education throughout the territory was at an exceedingly low ebb, the law creating the University having preceded the general school law which made possible the establishment of high schools in the towns. And while the territorial institution bore the name of University, it was in reality a preparatory school. There was but one building on the campus for educational purposes during the first administration, and legislative appropriations for maintenance were very meagre. In addition to the normal department and the regular curriculum, a commercial school was opened in 1893.

The Board of Regents in the summer of 1897 elected Dr. C. L. Herrick, of Denison College in Ohio, as active president to take full charge of the University. President Herrick was a man of scholarly attainments, especially in the fields of science and philosophy, and though in ill health he put into the science work new life which gave it an interest and impetus that meant continued growth. The great need of a science build-

ing, and the failure of the legislature to provide for this need, prompted an effort on the part of President Herrick to solicit funds for a new building from friends of the institution. The result was that Mrs. W. C. Hadley became interested in the project, and made a gift of $10,000 for a science hall. Other smaller donations from New Mexico citizens were added to this amount and in 1899 an excellent three-story building was erected, and called the Hadley Laboratory. About the same time a small gymnasium was built on the campus and physical training was made a part of the students' development. President Herrick materially strengthened the teaching force of the University, and gathered about him a number of science students from the East and from New Mexico, giving to the University something of a college atmosphere.

In 1901 Dr. William G. Tight, a geologist, also from Denison College, was elected as successor to President Herrick and served until 1909. The call to New Mexico was very attractive to Dr. Tight as it seemed to open the way to a great, new field for geological research. But upon entering the work of the University and learning its needs, he discovered that his time was to be largely occupied with executive duties, and that it was necessary for him to sacrifice much of his professional scientific work. Nevertheless, he threw the vigor of his physical and mental energy into the larger interests of the institution. In his fertile mind Dr. Tight saw a vision of a greater university for New Mexico in the future and began to conceive large plans. The grounds were laid out with a thought of permanency, and hundreds of trees were placed in orderly arrangement as a start for a beautiful campus. A deep well was dug, a large windmill for motive power constructed, and an irrigating reservoir built, in an effort to furnish the abundance of water needed, on an economical basis. Another policy pointing toward permanency was that of uniformity in the style of buildings to be erected, and President Tight ingeniously conceived the idea of an Indian Pueblo type of architecture. After studying and photographing various buildings in Indian villages throughout New Mexico, he began to formulate plans for a distinctive type of University buildings, choosing the style from the native soil, instead of borrowing ideas from foreign lands. A Power House was first constructed on the new plan, and then dormitories—one for women, named Hokona, the Indian significance being virgin butterfly; and one for men, called Kwataka, or man-eaglet. The Administration Building, a large three-story structure and the first building on the campus, was remodeled on the lines of the adopted Pueblo plan, and an assembly room added and designated Rodey Hall, in recognition of the valuable services rendered the University by the Honorable B. S. Rodey in the Territorial Legislature and the Federal Congress.

The administration of Dr. Tight was also marked by definite advance in all college departments and athletic activities. While special emphasis was placed upon the science work, other courses were not neglected. A beginning was also made in putting the University in closer touch with the few high schools then in existence throughout the territory. An excellent school of music and expression was organized, and housed in the upper rooms of the Albuquerque Public Library building. It was Pres-

ident Tight's plan to place music on the same basis as all other subjects in the University—but a plan which he was unable to bring to full maturity.

In 1909 Dr. E. D. McQueen Gray was chosen to succeed President Tight, and served until 1912. Dr. Gray, although a resident of the United States and of New Mexico for a number of years, had been educated in English universities and had spent much time traveling in European countries. Dr. Gray's very considerable scholarly attainments lay in the classics, modern languages, and history. He was of great assistance to Rhodes scholarship candidates, for he had spent a number of years preparing men for Oxford University. He held also to English tradition in many features of university administration. With the beginning of the academic year 1909-10 President Gray introduced a number of important changes. The College of Science and Engineering was separated from the College of Letters and Arts and placed under the direction of a Dean and College Faculty; and three new administrative positions were created—Dean of the College of Science and Engineering, Dean of Women, and Principal of the Preparatory School, the work of the first two years of this school being largely eliminated. The burning of the Hadley Laboratory in 1910 made necessary the erection of a new building with very limited funds, to serve as a temporary science building. In this construction a deviation from the Pueblo type of architecture was introduced.

When New Mexico was granted statehood in 1912, President Gray was succeeded by Dr. David Ross Boyd, a man of the West, who brought to the position a ripe experience in educational work and university administration, having been for a number of years president of the University of Oklahoma, from its struggling days to its successful establishment as a thriving state institution. Upon election President Boyd began to make a careful study of the general educational situation in New Mexico and the needs of the University. One of the first things to demand attention was the securing of a larger campus for immediate and future needs, while land could be purchased at a reasonable price. By persistent effort, the campus has been extended from 25 acres, when President Boyd assumed office, to a tract of over 300 acres. This additional land, which is well located, was purchased at an exceedingly favorable figure, and was secured none too soon, as adjacent land has already more than doubled in value. With a view to unity in the development of plans for the greater university, the administration secured the services of Mr. Walter Burleigh Griffin of Chicago, a landscape architect and expert in city planning. Mr. Griffin had won the $10,000 prize in a contest of 142 architects from different parts of the world, for plans to be used in the construction of the new capital city of the confederate states of Australia at Canberra, and had then been employed to lay out the grounds of the new federal district, and superintend the construction of the beautiful city of Canberra. Mr. Griffin visited the University to study the situation and environment and was enthusiastic over the possibilities of developing the large campus and constructing buildings in a modified form of the unique Pueblo type of architecture. His plans are now in the hands of the Regents and President Boyd, for the permanent arrangement and beautification of the grounds, and the attractive grouping of

new buildings. The rapidly growing chemistry department called for the first building under the new plans. It is a plain, substantial structure, covering a ground space of 165 by 50 feet, with the interior marked by the most modern arrangement, and latest equipment for laboratory work. The next building will be for general science, bids for its construction having already been called for. The land grant of Congress for the University totals about 350,000 acres, now secured by title and nearly all surveyed. The amount of 50,000 acres has been sold, and the proceeds invested in a permanent producing fund, the income of which is available for University use. About 300,000 acres are leased and are thus the source of a small income for the University.

With President Boyd's administration have come some important changes in the University curriculum. Less emphasis has been placed on the preparatory studies, as high schools in the state have been increasing in numbers and improving the character of their work. However, to accommodate students from communities where high schools are not established, or are not adequate, preparatory students are yet admitted for the third and fourth years' work. A beginning has been made in university extension and correspondence work in order to accommodate those who may seek advancement, but who are unable to attend the University. The department of home economics has been introduced, with excellent up-to-date electrical equipment. A chair of theoretical and applied pyschology has been added to the College of Arts, Philosophy, and Sciences. In view of the growing importance of our national relations with the Latin-American republics, courses in Spanish history have been provided and greater emphasis has been placed upon the teaching of the Spanish language. A Course in Commerce, under the direction of the department of economics, has been established on a university basis, to take up the larger problems of business, and commercial relations with other countries. In addition, several full courses in music have been organized in the College of Fine Arts.

During the administration of President Boyd the University has become better known both within and without the state than ever before, and the college enrollment has been materially increased. Publicity, through printed matter and letters sent out from the University, and through press articles, has brought about this wider acquaintance, the newspapers of the state having liberally aided in advancing the interests of the institution. By the president's frequent visits to New Mexico high schools and to various communities throughout the state, and by his public addresses, he has personally and persistently brought the University to the attention of the people, and has constantly emphasized the fact that the institution is not a local school at Albuquerque, but that it is the State University belonging to all the people of New Mexico.

GOVERNMENT AND MAINTENANCE.

The University of New Mexico is the culmination of the educational system of the State. In the educational plan of the State, the University is closely connected with the high schools in the same way as the high schools are related to the grammar and primary grades. Just as it is not expected that all who complete the grammar grades will advance to and through the high school, it is likewise not expected that all who complete the high school course will go forward to and through the University, but the relation between the University and the high schools is such that the graduates from the high schools can enter the University on a certificate plan much the same as graduates of the grammar school can pass to the first year of the high school, as easily and naturally as possible. The University encourages scholarship and learning and the application of scientific knowledge to the arts of life. It has also established and to some extent has worked out a plan for extending the privileges of the University to those who are unable to be present in residence, through a division of extension that is organized and is developing on a broad basis. Its aim is to place the resources of the University, so far as possible, at the disposal of any person who desires and has sufficient qualifications to use them, all with the least possible restriction.

The University is supported by the income from the proceeds of the sale of lands granted to it by the Federal Government on New Mexico's becoming a state, together with the income from leases and other uses of the lands. Its chief support, however, is that of appropriations made for its maintenance by the State Legislature. Small beginnings have been made by donations from interested friends of the University. The beginning of a rotating loan fund for the benefit of worthy and needy students has been made. The chief contributors to this beginning fund were the Hon. Felix Martinez and the Hon. George A. Kaseman. A gift of $500.00 has been made by Mrs. William Jennings Bryan, and is known as the Philo Sherman Bennett Fund, the income of which, after a certain amount has been realized, is to be used to assist needy students. Nu-

merous valuable donations have been made of collections of scientific interest and of valuable books for the library.

The government of the University is vested in a Board of Regents who possess the powers to accomplish the objects of the University's establishment, and to perform the various duties prescribed by law. Five regents are appointed by the Governor of the State; the Governor and the Superintendent of Public Instruction are ex-officio members of the Board. The Regents appoint all officers of administration and instruction, and all faculty rules regarding the government of the students are subject to their approval. The University Faculty exercises authority subject to the approval of the Board of Regents on matters of educational policy, scholastic standards, and general matters relating to the University. All instructors of the institution with the rank of assistant professor or above, constitute a faculty with power to take action on questions within the jurisdiction of that body.

SITUATION AND ENVIRONMENT.

All writers who have treated the subject of the climatic conditions of the American continent in their relation to health and disease, are agreed in declaring that the southeastern slopes and spurs of the Rocky Mountain range, with their elevated plateaus, upland valleys, and gently sloping stretches of open country, embrace within their boundaries the most salubrious region in the United States. In the very center of this "health zone," as it may be termed, stands the city of Albuquerque, the most populous town in New Mexico, and the commercial capital of the State.

Albuquerque lies on the main line of the Atchison, Topeka & Santa Fe Railway system, at the junction of the lines to El Paso and Mexico on the south, Arizona and California to the west, the Pecos Valley and southeastern Texas to the east, and through Colorado to Kansas City and Chicago to the north, so that it enjoys railroad facilities unequalled by any other town in this region.

The situation of the city is in every respect admirable. It occupies the center of a strip of highly fertile land on the left bank of the Rio Grande—the Rio Grande del Norte of the Spanish discoverers—at an elevation of five thousand feet above the level of the sea, in the valley formed by the river as it makes its way between the mountain ranges to the east and west; and the protected situation of the city has contributed not a little to the salubrity of its climate.

On the mesa, or elevated plateau, about a mile east of the city, stands the University, overlooking with its eleven buildings the wide valley of the Rio Grande. The pure air of the mesa, bracing and invigorating, surrounds the spot, and lassitude and depression are unknown in this atmosphere. Extremes of temperature, whether of heat or cold, which not infrequently impede the progress of educational work in other localities, never visit this part of New Mexico.

The New Town of Albuquerque—for there is also an Old Albuquerque, dating from the times of the first Spanish settlers, and still typically Spanish in appearance—is an essentially modern city, with paved streets, concrete sidewalks,

electric light, street cars, two daily papers, and important mercantile and manufacturing establishments.

It is also an educational center, possessing in addition to the University many schools of various kinds; while the public school system of the city compares favorably with the systems of much larger Eastern towns.

It is a city of churches, all the leading religious denominations being efficiently represented; and the members of all churches gladly welcome the University students to share in their religious and social life. The University's position in regard to religion is strictly non-sectarian, and the students are encouraged to attach themselves to the religious organizations with which their families are connected.

The advantageous position of the city on the main line of passenger traffic east and west, furnishes to the citizens many opportunities of seeing and listening to persons of distinction in almost every department of public effort; and concerts, lectures, plays, musical and literary gatherings occur throughout the year. The advantage to the young student of association and environment of this kind can hardly be over-estimated.

BUILDINGS.

At the southwest corner of the campus is the ADMINISTRATION BUILDING. This, the oldest building on the campus, has been remodeled to conform with the adapted Pueblo style of architecture in which the newer buildings have been constructed. The ground floor contains the Home Economics laboratories and classrooms, and a part of the stacks of the Library. The first floor houses the administration offices, the reading and checking rooms and the remainder of the stacks of the Library, and several classrooms. The two upper floors are given up to classrooms and departmental offices.

Just north stands RODEY HALL, an exact replica of the centuries-old Pueblo church at Taos, New Mexico. It has a seating capacity of 600, and is used for all assemblies and public lectures.

Further to the north and west is the POWER HOUSE, the heating plant which supplies all the buildings on the campus. It also is constructed in the adapted Pueblo style.

To the east is the UNIVERSITY COMMONS, a wooden frame building, which contains a dining room with seating capacity of 175, kitchen, scullery, and servants' quarters.

Just east of this building is ENGINEERING HALL, a one-story cement structure having laboratories, classrooms, a lecture room, and departmental offices for Civil and Electrical Engineering, Geology, Physics, and Practical Mechanics.

The new CHEMISTRY BUILDING, north of ENGINEERING HALL, is of the adapted Pueblo style of architecture with an open patio in the center. It is the largest building on the campus and has laboratories, lecture rooms, and classrooms, as well as stock rooms and departmental offices for Chemistry, Animal Biology, and Botany.

Facing these buildings on the east stand the Men's Dormitory, KWATAKA, and the Women's Dormitory, HOKONA, both good examples of the adapted Pueblo architecture. They are divided into suites of rooms, each consisting of a study and two bedrooms and intended for two students. The ground floor of HOKONA contains the women's parlors as well.

Southeast of HOKONA is the WOMEN'S GYMNASIUM,

and further to the south are the MEN'S GYMNASIUM, the swimming pool, and the UNIVERSITY FIELDHOUSE, the latter for the use of the athletic teams. These three buildings are wooden frame structures, but are well provided with showers, lockers, dressing rooms, apparatus, and floor space for training classes and indoor athletic sports. The MEN'S GYMNASIUM contains the examination room and departmental office for Physical Training.

THE LIBRARY.

The University Library contains at present about 15,000 volumes, exclusive of duplicates and unbound pamphlets. This number includes both the main library and the departmental libraries which are shelved in rooms adjoining the lecture rooms.

In exchange for the Bulletins of the University the Library receives a large number of valuable scientific publications. There are now more than one hundred and fifty societies and universities on the exchange list. In addition, over one hundred learned and semi-popular magazines and periodicals are subscribed for.

The University is one of the United States depositories for public documents. Many valuable reference works are accessible to the public during library hours.

A dictionary catalogue is being made, listing all material by author, subject, and title, thus making all the resources of the Library readily accessible.

The main library is open every day except Saturday and Sunday from 8 a. m. to 5 p. m.; on Saturday from 8 to 12 a. m.

PUBLIC ASSEMBLIES.

University Assemblies are held in Rodey Hall, at intervals averaging about once a week, during the regular hours of instruction and at other times. All University classes are suspended during the Assembly hour. In addition to a number of Student Assemblies, lectures and addresses are delivered on various topics of interest by members of the Faculty and by visitors to the University and the city, occasional musical and dramatic recitals are given, and literary contests in oratory and debating are held. The Young Men's and Young Women's Christian Associations hold regular Sunday afternoon joint services, open to the public.

SCHOLARSHIPS AND HONORS.

THE CECIL RHODES SCHOLARSHIPS.

In accordance with the provisions of the will of Cecil Rhodes, awarding two scholarships every three years to each state and territory in the United States, tenable at Oxford, England, and of the annual value of $1,500, New Mexico has the privilege of electing a scholar from among the candidates who pass the qualifying examination set by the Oxford delegacy. The selection of scholars is made by a Committee of Selection approved by the Rhodes trustees. The scholars hitherto selected are:

1906, Thomas S. Bell; 1908, Frank C. Light; 1910, Hugh M. Bryan; 1911, Karl G. Karsten; 1914, W. Coburn Cook.

HONOR FRATERNITY.

The national honor fraternity of Phi Kappa Phi granted a chapter to the University of New Mexico in May, 1916. Elections from the Senior class only are made in the second semester of each year. A Senior, in order to be eligible for election, must have been in residence for three semesters and must stand in the highest fourth of his class in scholarship.

STUDENT ORGANIZATIONS.

There are several organizations in the University subordinate to a general Student Body control. They include the Editorial Boards of the U. N. M. Weekly and the Mirage; the Dramatic Club; the Athletic Association; some voluntary departmental associations which include the Choral Club, an Orchestra, a Band, the German Club, El Circulo Espanol; and Y. M. C. A. and Y. W. C. A. organizations, and the Rifle Club.

The musical organizations, under the leadership of Assistant Professor Seder, have been developed to a high degree of efficiency. The Dramatic Club each year stages a successful play, musical comedy, or the like. The Rifle Club is affiliated with the National Guard, and shoots are held at various times throughout the year. The Athletic Association directs all local and intercollegiate athletic events, and has succeeded in getting more contests each year. The University of New Mexico was this year admitted to the Rocky Mountain Conference.

Beside these activities the usual oratorical and debating contests occupy the attention of those interested for several months of the year. Debates are held with the Universities of Southern California and Arizona, and the New Mexico Agricultural College. Representatives of other institutions will be met in the future.

ADMISSION TO THE UNIVERSITY.

METHODS OF ADMISSION.

Students are admitted either upon examination at the University or upon presentation at the University of certificates from accredited schools, except that adult special students are admitted in accordance with the provisions stated under the Admission of Adult Special Students.

The following high schools in New Mexico are accredited:

Alamogordo
Albuquerque
Artesia
Aztec
Belen
Carlsbad
Carrizozo
Clayton
Clovis
Deming
East Las Vegas
Farmington
Gallup
Hagerman
Lake Arthur
Las Cruces
Portales
Raton
Roswell
Santa Fe
Santa Rosa
Socorro
Tucumcari

Diplomas from these high schools admit the holders thereof to the Freshman class whenever the course of study pursued meets the entrance requirements of the College or Course in which the student desires to matriculate.

ADMISSION TO THE COLLEGES AND COURSES.

The requirements for admission are stated in terms of units. The term "unit" means the completion of a course of study consisting of five recitation periods of at least forty minutes each per week during thirty-six weeks. A laboratory period or other practice work should extend over at least two consecutive recitation periods and is considered the equivalent of one recitation.

Fifteen units, some of which are prescribed and the remainder elective, are required for admission to any College or Course of the University. But conditional admission is granted students offering not less than thirteen units, the condition being that the deficiency be made up in the first year of residence. The variation existing between the prescribed subjects and those which may be offered as electives is shown in

the following exhibit, in which List A in every case is prescribed, and the remainder of the fifteen units required for entrance may be elected from Lists B and C in the amounts indicated.

FOR ADMISSION TO THE COLLEGES OF ARTS, PHILOSOPHY, AND SCIENCES AND OF FINE ARTS.

List A.

English	3 units
History, Government, and Economics	1 unit
Foreign Language (in one language)	2 units
Algebra	1 unit
Geometry, Plane	1 unit
Laboratory Science	1 unit
Total prescribed	9 units
From List B (see below)	2-6 units
From List C (see below)	½-4 units
Total, to make	15 units

(**Note.**—A high school science, in order to be accepted as a laboratory science, must be truly scientific in its nature, and represent some real laboratory work. This work involves the development of the power to observe carefully and correctly the phenomena of science and to state clearly the deductions drawn therefrom.)

FOR ADMISSION TO THE COURSES IN EDUCATION.

List A.

English	3 units
History and Civics (Ancient and U. S. History and Civics)	2 units
Foreign Language (in one language)	2 units
Algebra	1 unit
Geometry, Plane	1 unit
Laboratory Science	1 unit
Physiology	½ unit
Total prescribed	10½ units
From List B	2½-4½ units
From List C	½-2 units
Total, to make	15 units

FOR ADMISSION TO THE COLLEGE OF ENGINEERING AND THE COURSE IN HOME ECONOMICS.

List A.

English	3 units
Foreign Language (in one language, preferably modern)	2 units
Algebra	1½ units
Geometry, Plane and Solid	1½ units
Physics	1 unit
Total prescribed	9 units
From List B	2-6 units
From List C	½-4 units
Total, to make	15 units

The matriculant must offer the subjects contained in List A for admission to the College or Course of which he expects to be a member. Under List C are given the minimum and maximum numbers of units that are accepted from that list for each College or Course. The remainder of the fifteen units required for entrance is to be offered from List B. None of the subjects contained in List C is prescribed for entrance and if no electives are offered from this list the number of units needed in addition to List A to make a total of fifteen is to be offered from List B.

Limitations:—Not more than four units will be accepted from any one group in List B except in the case of foreign languages, including the amounts of that group prescribed in List A. Not more than four units will be accepted from List C, but the maximum amount from this list accepted for entrance to the Courses in Education is two units.

List B.

1. English Grammar and Composition, English and American Literature ..... 3 units
   Additional Composition, English or American Literature .... 1 unit

   (**Note.**—In the case of foreign students, their native language and literature will be accepted in lieu of the above requirement of English, if equal to this requirement in nature and amount. When this substitution is made, a reading and speaking knowledge of English is to be offered to meet the requirement of two units in a foreign language.)

2. Group of History, Government, and Economics.

   Ancient History ..... ½-1 unit
   Medieval and Modern History ..... ½-1 unit
   English History ..... ½-1 unit
   American History ..... ½-1 unit
   Civics ..... ½ unit
   Economics ..... ½ unit

3. Group of Foreign Languages.

   Six units is the maximum accepted from this group.

   French ..... 1-4 units
   German ..... 1-4 units
   Greek ..... 1-3 units
   Latin ..... 1-4 units
   Spanish ..... 1-4 units
   Other foreign languages ..... 1-4 units each

4. Group of Mathematics.

   Algebra to Quadratics ..... 1 unit
   Algebra, completed ..... ½ unit
   Plane Geometry ..... 1 unit
   Solid Geometry ..... ½ unit

Algebraic Theory, Advanced ..... ½ unit
Trigonometry ..... ½ unit

5A. Group of Laboratory Sciences.

Botany ..... ½-1 unit
Zoology ..... ½-1 unit
Physiology-Biology ..... 1 unit
Chemistry ..... 1 unit
Geology ..... ½-1 unit
Physical Geography ..... ½-1 unit
Physics ..... 1 unit

5B. Group of Non-Laboratory Sciences.

Any of the above if given without adequate laboratory work, and the following:

General Science ..... ½-1 unit
Astronomy ..... ½ unit
Psychology ..... ½ unit

List C.

The maximum amount that may be offered from this list for entrance to the various Colleges and Courses of the University is indicated above. The maximum that will be accepted in any one subject contained in the group is shown below.

Agriculture ..... ½-2 units
Home Economics (Domestic Science) ..... ½-3 units
Commercial Subjects ..... ½-4 units
Manual Training and Arts ..... ½-2 units
Music ..... ½-2 units

Optional subjects.—An optional subject is any subject taken in the high school course but not included in List B or List C. A maximum of one unit in optional subjects may be accepted, subject to the nature and quality of the work done, but not with four units from List C.

COURSES ACCEPTED FOR ADMISSION.

1. GROUP OF ENGLISH.

Three units prescribed, one additional elective.

It is expected that three years of the high school course in English will conform to the following standard. This amount of work, if of satisfactory quality, will be accepted as fulfilling the prescribed requirement of three units in English.

Uniform college entrance requirements in English.—The study of English in school has two main objects: (1) command of correct and clear English, spoken and written; (2) ability to read with accuracy, intelligence, and appreciation.

Grammar and composition.—The first object requires instruction in grammar and composition. English grammar should be reviewed in the secondary school; and correct spelling and grammatical accuracy should be rigorously exacted in connection with all written work during the

four years. The principles of English composition governing punctuation, the use of words, sentences, and paragraphs should be thoroughly mastered; and practice in composition, oral as well as written, should extend throughout the secondary school period. Written exercises may well comprise letter writing, narration, description, and easy exposition and argument. It is advisable that subjects for this work be taken from the student's personal experience, general knowledge, and studies other than English, as well as from his reading in literature. Finally, special instruction in language and composition should be accompanied by concerted effort of teachers in all branches to cultivate in the student the habit of using good English in his recitations and various exercises, whether oral or written.

Literature.—The second object is sought by means of two lists of books, headed respectively **Reading** and **Study**, from which may be framed a progressive course in literature covering four years. In connection with both lists, the student should be trained in reading aloud and be encouraged to commit to memory some of the more notable passages both in verse and in prose. As an aid to literary appreciation, he is further advised to acquaint himself with the most important facts in the lives of the authors whose works he reads and with their place in literary history.

A. **Reading.**—The aim of this course is to foster in the student the habit of intelligent reading and to develop a taste for good literature, by means of a first-hand knowledge of some of its best specimens. He should read the books carefully, but his attention should not be so fixed upon details that he fails to appreciate the main purpose and charm of what he reads.

With a view to large freedom of choice, the books provided for reading are arranged in the following groups, from each of which at least two selections are to be made, except as otherwise provided under Group I.

Group I—Classics in Translation.

The Old Testament, comprising at least the chief narrative episodes in Genesis, Exodus, Joshua, Judges, Samuel, Kings, and Daniel, together with the books of Ruth and Esther.

The Odyssey, with the omission, if desired, of Books I, II, III, IV, V, XV, XVI, XVII.

The Iliad, with the omission, if desired, of Books XI, XIII, XIV, XV, XVII, XXI.

The Aeneid.

The Odyssey, Iliad, and Aeneid should be read in English translations of recognized literary excellence.

For any selection from this group a selection from any other group may be substituted.

Group II—Shakespeare.

Midsummer Night's Dream,	Richard II,	
Merchant of Venice,	Richard III,	
As You Like It,	Henry V,	
Twelfth Night,	Coriolanus,	
Tempest,	Julius Caesar,	If not chosen
Romeo and Juliet,	Macbeth,	for study
King John,	Hamlet,	under B.

Group III—Prose Fiction.

Malory: Morte d'Arthur (about 100 pages).
Bunyan: Pilgrim's Progress, Part I.
Swift: Gulliver's Travels (voyages to Lilliput and to Brobdingnag).
Defoe: Robinson Crusoe, Part I.
Goldsmith: Vicar of Wakefield.
Frances Burney: Evelina.
Scott's Novels: any one.
Jane Austen's Novels: any one.
Maria Edgeworth: Castle Rackrent, or The Absentee.
Dickens' Novels: any one.
Thackeray's Novels: any one.
George Eliot's Novels: any one.
Mrs. Gaskell: Cranford.
Kingsley: Westward Ho! or Hereward, the Wake.
Reade: The Cloister and the Hearth.
Blackmore: Lorna Doone.
Hughes: Tom Brown's Schooldays.
Stevenson: Treasure Island, or Kidnapped, or Master of Ballantrae.
Cooper's Novels: any one.
Poe: Selected Tales.
Hawthorne: The House of the Seven Gables, or Twice Told Tales, or Mosses From an Old Manse.
A collection of Short Stories by various standard writers.

Group IV—Essays, Biography, Etc.

Addison and Steele: The Sir Roger de Coverley Papers, or Selections from The Tatler and Spectator (about 200 pages).
Boswell: Selections from the Life of Johnson (about 200 pages).
Franklin: Autobiography.
Irving: Selections from the Sketch Book (about 200 pages), or Life of Goldsmith.
Southey: Life of Nelson.
Lamb: Selections from the Essays of Elia (about 100 pages).
Lockhart: Selections from the Life of Scott (about 200 pages).
Thackeray: Lectures on Swift, Addison, and Steele in the English Humorists.
Macaulay: Any one of the following essays: Lord Clive, Warren Hastings, Milton, Addison, Goldsmith, Frederick the Great, Madame d'Arblay.
Trevelyan: Selections from the Life of Macaulay (about 200 pages).
Ruskin: Sesame and Lilies, or Selections (about 150 pages).
Dana: Two Years Before the Mast.
Lincoln: Selections, including at least the two Inaugurals, the Speeches in Independence Hall and at Gettysburg, the Last Public Address, the Letter to Horace Greeley; together with a brief memoir or estimate of Lincoln.
Parkman: The Oregon Trail.
Thoreau: Walden.
Lowell: Selected Essays (about 150 pages).
Holmes: The Autocrat of the Breakfast Table.

Stevenson: An Inland Voyage and Travels With a Donkey.

Huxley: Autobiography and selections from Lay Sermons, including the addresses on Improving Natural Knowledge, A Liberal Education, and A Piece of Chalk.

A collection of Essays by Bacon, Lamb, DeQuincey, Hazlitt, Emerson, and later writers.

A collection of Letters by various standard writers.

Group V—Poetry.

Palgrave: Golden Treasury (First Series): Books II and III, with special attention to Dryden, Collins, Gray, Cowper, and Burns.

Palgrave: Golden Treasury (First Series): Book IV, with special attention to Wordsworth, Keats, and Shelley (if not chosen for study under B).

Goldsmith: The Traveler and The Deserted Village.

Pope: The Rape of the Lock.

A collection of English and Scottish Ballads, as, for example, some Robin Hood ballads, the Battle of Otterburn, King Estmere, Young Beichan, Bewick and Grahame, Sir Patrick Spens, and a selection from later ballads.

Coleridge: The Ancient Mariner, Christabel, and Kubla Khan.

Byron: Childe Harold, Canto III or IV, and The Prisoner of Chillon.

Scott: The Lady of the Lake, or Marmion.

Macaulay: The Lays of Ancient Rome, The Battle of Naseby, The Armada, Ivry.

Tennyson: The Princess; or Gareth and Lynette, Lancelot and Elaine, and The Passing of Arthur.

Browning: Cavalier Tunes, The Lost Leader, How They Brought the Good News From Ghent to Aix, Home Thoughts From Abroad, Home Thoughts from the Sea, Incident of the French Camp, Hervé Riel, Pheidippides, My Last Duchess, Up at a Villa—Down in the City, The Italian in England, The Patriot, The Pied Piper, "De Gustibus—", Instans Tyrannus.

Arnold: Sohrab and Rustum, and The Forsaken Merman.

Selections from American Poetry, with special attention to Poe, Lowell, Longfellow, and Whittier.

B. Study.—This part of the requirement is intended as a natural and logical continuation of the student's earlier reading, with greater stress laid upon form and style, the exact meaning of words and phrases, and the understanding of allusions. The books provided for study are arranged in four groups, from each of which one selection is to be made.

Group I—Drama.

Shakespeare: Julius Caesar, Macbeth, Hamlet.

Group II—Poetry.

Milton: L'Allegro, Il Penseroso, and either Comus or Lycidas.

Tennyson: The Coming of Arthur, The Holy Grail, and the Passing of Arthur.

The selections from Wordsworth, Keats, and Shelley in Book IV of Palgrave's Golden Treasury (First Series).

Group III—Oratory.

Burke: Speech on Conciliation With America.

Macaulay: Two Speeches on Copyright; and Lincoln: Speech at Cooper Union.

Washington: Farewell Address; and Webster: First Bunker Hill Oration.

Group IV—Essays.

Carlyle: Essay on Burns, with a selection from Burns' Poems.

Macaulay: Life of Johnson.

Emerson: Essay on Manners.

Examinations.—However accurate in subject-matter, no paper should be considered satisfactory if seriously defective in punctuation, spelling, or other essentials of good usage.

The examinations should be divided into two parts, one of which should be on grammar and composition, and the other on literature.

In grammar and composition, the candidate should be asked specific questions upon the practical essentials of these studies, such as the relation of the various parts of a sentence to one another, the construction of individual words in a sentence of reasonable difficulty, and those good usages of modern English which one should know in distinction from current errors. The main test in composition should consist of one or more essays, developing a theme through several paragraphs; the subjects should be drawn from the books read, from the candidate's other studies, and from his personal knowledge and experience quite apart from reading. For this purpose the examiner should provide several subjects, perhaps eight or ten, from which the candidate may make his own selections. He should not be expected to write more than four hundred words an hour.

The examination in literature should include:

A. General questions designed to test such a knowledge and appreciation of literature as may be gained by fulfilling the requirments defined under **A. Reading**, above. The candidate should be required to submit a list of the books read in preparation for the examination, certified by the principal of the school in which he was prepared; but this list should not be made the basis of detailed questions.

B. A test on the books prescribed under **B. Study**, which should consist of questions upon their content, form, and structure, and upon the meaning of such words, phrases, and allusions as may be necessary to an understanding of the works and an appreciation of their salient qualities of style. General questions may also be asked concerning the lives of the authors, their other works, and the periods of literary history to which they belong.

The work outlined above is suggested for a three years' course in English in high schools. It will be accepted by the University as meeting the prescribed entrance requirement of three units in English.

An additional full year's study, which should consist of one period of composition and four periods given to the study of either American or English literature taught as a systematic historical survey with textbook and supplementary readings, may be offered as a fourth unit in English.

2. GROUP OF HISTORY, GOVERNMENT, AND ECONOMICS.

One unit from this group is required for admission to the Colleges of Arts, Philosophy, and Sciences and of Fine Arts. Two units are required for admission to the Courses in Education; namely, Ancient History, 1 unit, and American History and Civics, 1 unit. A maximum of four units may be accepted from this group towards admission.

1. History.

Each year's work should cover some standard high school text, together with a book of readings and the drawing of maps. The McKinley Outline Topics are recommended as providing excellent material for map work, as well as giving outlines, references, illustrations, and additional source materials for collateral reading. It is advisable that students present their map work and notebooks upon entering the University.

The following texts and source books are indicated as examples of the amount and character of the material for each unit:

A. Ancient history.—Botsford: History of the Ancient World (Macmillan); West: The Ancient World (Allyn and Bacon); Wolfson: Essentials of Ancient History (American Book Co.); Davis: Readings in Ancient History (Allyn and Bacon); G. W. and L. S. Botsford: Source Book of Ancient History (Macmillan).

B. Mediaeval and modern history.—West: The Modern World (Allyn and Bacon); Harding: Essentials in Mediaeval and Modern History (American Book Co.); Robinson: Readings in European History, abridged edition (Ginn); Ogg: Source Book of Mediaeval History (American Book Co.)

C. English history.—Cheyney: Short History of England (Ginn); Andrews: History of England (Allyn and Bacon); Walker: Essentials of English History (American Book Co.); Cheyney: Readings in English History (Ginn); Tuell and Hatch: Selected Readings in English History (Ginn).

D. American history.—Muzzey: American History (Ginn); Montgomery: Student's American History (Ginn); James and Sanford: American History (Scribners); Muzzey: Readings in American History (Ginn); James: Readings in American History (Scribners); Hart: Source Book of American History (Macmillan).

If only one year's work is offered in high school, Ancient History is recommended; if two years', Ancient and American; if three years', Ancient, American, and English; if four, the order should be Ancient, Mediaeval and Modern, English, and American.

2. Government and Economics.

Civics.—This course must not be confined to the study of the form of our government, but must investigate the functions that it performs and the manner in which it performs them. Only modern texts should be used. Among the best of these are: Beard and Beard: American Citizenship (for first-year courses); Garner: Government in the United States; and Guitteau: Government and Politics in the United States. Students should have access to Macy and Gannaway: Comparative Free Government.

Economics.—Acceptable work in this subject necessitates the use of

modern texts, such as Johnson: Introduction to Economics; or Burch and Nearing: Economics. One of these must be mastered. Reference books should be available to the students.

3. GROUP OF FOREIGN LANGUAGES.

Two units in one language are required for admission. For admission to the College of Engineering and the Course in Home Economics a modern language is preferred. A maximum of six units may be offered from this group for admission.

1. French.

First year's work.—Elementary grammar, with the more common irregular verbs. Careful training in pronunciation. About 100 pages of easy prose should be read.

Second year's work.—Advanced grammar, with all the irregular verbs. Elementary composition, and conversation. About 300 pages of modern French should be read.

Third year's work.—Intermediate composition, and conversation. About 500 pages of standard authors should be read, including a few classics.

Fourth year's work.—Advanced composition, and conversation. Standard modern and classical authors should be read and studied to the extent of 700 pages.

2. German.

It is recommended that pupils be trained to understand spoken German, and to reproduce freely, in writing and orally, what has been read. Whatever method of teaching is used, however, a thorough knowledge of grammar is expected. No attempt is made in what follows to give more than a general outline for the work of successive years, but the department of German Language and Literature welcomes inquiries from teachers who wish further suggestions in the planning of courses.

First year's work.—At the end of the year pupils should be able to read intelligently and with accurate pronunciation simple German prose, to translate it into idiomatic English, and to answer in German easy questions on the passage read. A few short poems may well be memorized. Elementary grammar should be mastered up to the subjunctive as arranged in most books for beginners. Easy prose composition rather than the writing of forms will be the test of this grammatical work.

Second year's work.—About 500 pages of modern writers should be read, preference being given to material which has a distinctly German atmosphere and which lends itself readily to conversational treatment in the classroom. The regular recitations should afford constant oral and written drill on the elementary grammar of the previous year. More importance is attached to accuracy and facility in simple modes of expression than to theoretical knowledge of advanced syntax.

Third year's work.—Most of the time should still be devoted to good modern prose. There should be some work in advanced prose composition —based on German models—and the daily recitations should continue to afford abundant oral practice. Pupils ought by this time to understand spoken German fairly well.

Fourth year's work.—At the end of this year a pupil should be able

to read at sight any prose or verse of moderate difficulty. He should also be able to express himself orally or in writing with considerable readiness and a high degree of accuracy. It is recommended that work in composition take the form of free reproduction of portions of the texts studied rather than translation of English selections. The reading should be divided about equally between modern and classical authors.

3. Greek.

First year's work.—The exercises in any of the beginning books, and one book of the Anabasis or its equivalent.

Second year's work.—Two additional books of the Anabasis and three of Homer, or their equivalent, together with an amount of Greek prose composition equal to one exercise a week for one year.

Third year's work.—Three additional books of the Iliad, three of the Odyssey, and Books VI, VII, VIII of Herodotus, or an equivalent from other authors.

4. Latin.

The requirements for admission in Latin are those recommended by the Commission on College Entrance Requirements in Latin, as follows: (a) In grammar and prose composition a knowledge of forms and syntax shall be acquired sufficient for writing simple Latin prose. (b) In reading, the amount shall not be less than Caesar: Gallic War, I-IV; Cicero: six orations; and Vergil: Aeneid I-VI, and shall be chosen from Caesar (complete), Nepos, Cicero (Orations, Letters, and De Senectute), Sallust, Ovid, and Vergil (complete). (c) Out of the above, the following reading is prescribed: Cicero: Manilian Law and Archias; and the Aeneid I, II, and either IV or VI. (d) Sight translation shall be performed of prose and verse of such difficulty as the scope of the above would justify.

5. Spanish.

First year's work.—Elementary grammar, including thorough drill in the irregular verbs; careful training in pronunciation, and translation of simple Spanish when spoken; reading of about 100 pages of easy prose; simple composition and dictation.

Second year's work.—In addition to the foregoing, about 300 pages of modern prose; elementary syntax; dictation, composition, and translation of spoken Spanish continued.

4. GROUP OF MATHEMATICS.

One unit of Algebra and one unit of Plane Geometry are required for entrance except to the College of Engineering where the requirement is raised to one and one-half units in Algebra and the addition of Solid Geometry. A maximum of four units may be offered from the group.

1. **Algebra.**—One unit. Elementary Algebra as far as Quadratics, including the elementary operations of polynomials and fractions, the solution of linear equations, simple factoring, simple powers, and roots. It is expected that the work be accompanied by graphical methods in the solution of equations of all types, and in the explanation of other topics.

2. **Algebra.**—One and one-half units. Complete elements of algebra, including the above and, in addition, thorough work on quadratic equa-

tions, such as is given by textbooks like those of Young and Jackson or Slaught and Lennes.

3. **Plane geometry.**—One unit. The work in Plane Geometry, in order to be acceptable, must cover a whole year's work in a good text and should include the applications of algebra to geometry and geometry to algebra.

4. **Solid geometry.**—One-half unit. The work, to be acceptable, must cover one-half of a year's work in such texts as that of Wentworth or Wells.

5. **Algebra.**—Additional half unit. This is to be taken after the completion of the unit and a half outlined above in 2 and should cover all work included in the usual advanced courses.

6. **Trigonometry.**—One-half unit. The work should cover the field of plane trigonometry, as given in standard textbooks, including the solution of right and oblique triangles. Special emphasis should be placed upon the solution of practical problems, trigonometric identities, and trigonometric equations.

5. GROUP OF SCIENCES.

A. Laboratory Sciences.

One unit from this group must be offered for admission to the University, and in the case of the College of Engineering, this unit should be Physics. For the present some other science may be substituted for Physics, but when this substitution is made, Physics 1 and 2 must be taken by Freshmen who are registered in this College.

1. **Botany.**—One-half or one unit. A familiar acquaintance with the general structure of plants, and of the principal organs and their functions, derived to a considerable extent from a study of the objects, is required; also a general knowledge of the main groups of plants; and the ability to recognize the more common species. Laboratory notebooks and herbarium collections should be presented.

2. **Zoology.**—One-half or one unit. The instruction must include laboratory work equivalent to four periods a week for a half-year, besides the time required for textbook and recitation work. Notebooks and drawings must be presented to show the character of work done and the types of animals studied. The drawings are to be made from the objects themselves, not copied from illustrations, and the notes are to be a record of the student's own observations of the animals examined. The amount of equipment and the character of the surroundings must, of course, determine the nature of the work done and the kinds of animals studied; but in any case the student should have at least a fairly accurate knowledge of the external anatomy of each of eight or ten animals distributed among several of the larger divisions of the animal kingdom, and should know something of their life histories and of their more obvious adaptations to environment. It is recommended that special attention be given to such facts as can be gained from a careful study of the living animal. The names of the largest divisions of the animal kingdom, with their most important distinguishing characteristics, and with illustrative examples selected, when practicable, from familiar forms, ought also to be known.

3. **Biology-Physiology.**—One unit. A profitable year's work may be done consisting of a half-year of Zoology as described above and a half-year of Physiology. There should be laboratory work throughout, with carefully kept notebooks which should be presented when this combination course is offered to satisfy the requirement of one unit of laboratory science. The laboratory work in physiology should consist of demonstrations and simple experiments. The compound microscope should be used occasionally, but macroscopic studies are more important. A large place in the course should be left for such practical topics as diet, sanitation, and personal hygiene.

4. **Chemistry.**—One unit. The instruction must include both textbook and laboratory work. The work should be so arranged that at least one-half of the time shall be given to the laboratory. The course as it is given in the best high schools in one year will satisfy the requirements of the University for the one unit for admission. The laboratory notes, bearing the teacher's endorsement, must be presented as evidence of the actual laboratory work accomplished.

5. **Geology.**—One-half or one unit. The student must show familiarity with the principles of dynamic and structural geology, and some acquaintance with the facts of historical geology as presented in Scott: Introduction to Geology; Brigham: Textbook of Geology; or an equivalent, with notebook of laboratory and field work. The laboratory and field work should follow one or more of the lines indicated below, and notebooks should be presented showing the character and amount of work done: (a) studies of natural phenomena occurring in the neighborhood which illustrate the principles of dynamic geology; each study should include a careful drawing of the object and a written description of the way in which it was produced; (b) studies of well-marked types of crystalline, metamorphic, and sedimentary rocks which will enable the student to recognize each type, and state clearly the conditions under which it was formed; (c) studies of minerals of economic value, including the characteristic of each, its origin, and the uses to which it is put; (d) studies of the types of soil occurring in the neighborhood, including the origin of each and the cause of differences in appearance and fertility.

6. **Physical geography.**—One-half or one unit. The amount and character of the work required may be seen by referring to the texts of Gilbert and Brigham, Davis, Tarr and Martin, etc. The recitations must be supplemented by at least an equal amount of time devoted to laboratory work. The laboratory exercises should follow one or more lines such as are indicated below, and each student should present a notebook showing what he has done: (a) studies in mathematical geography in which map and scale only are used; these should embrace such topics as length of a degree of longitude in various latitudes; length and breadth of continents, etc., in degrees and miles; relative latitudes of places; distances between cities, etc., in degrees and miles; differences in length of parallels and meridians; problems in time; location of time belts, etc; (b) studies of local topographical features which illustrate the various phases of stream work; each study should include a drawing or topographic map of the object, and a full, clear description of the way in which it was formed; (c) studies of glacial deposits as shown in terminal and ground moraines, kames, eskers, etc.; distribution of dark and light colored soils;

occurrences of lakes, ponds, gravel beds, clay banks, and water-bearing strips of sand and gravel; (d) studies of stream work as shown in the topographical sheets which may be obtained from the United States Geological Survey at a nominal cost; (e) studies of the form, size, direction and rate of movement of high and low barometer areas, and the relation of these to direction of wind, character of cloud, distribution of heat, and amount of moisture in the air, as shown in the daily weather maps; later these studies should lead to the making of weather maps from the data furnished by the daily papers, and to local prediction of weather changes based on the student's own observation; (f) studies of the climate of various countries compared with that of our own, the necessary data being derived from such topographic, rainfall, wind, current, and temperature maps as are found in Sydow-Wagner's or Longman's atlases.

7. **Physics.**—One unit. One year's high school work covering the elements of physical science as presented in the best of the current high school textbooks of physics. Laboratory practice in elementary quantitative experiments should accompany the textbook work. The candidate's laboratory notebook will be considered as part of the examination.

B. Non-Laboratory Sciences.

Four units are the maximum amount acceptable from groups 5A and 5B combined towards admission to the University. Group 5B consists of any of the subjects in 5A, if taught without laboratory work, and also the following:

1. **General science.**—One-half or one unit. Intended for the first year of high school. Hessler, or Caldwell and Eikenberry is recommended as a textbook.

2. **Astronomy.**—One-half unit. In addition to a knowledge of the descriptive matter in a good textbook, there must be some practical familiarity with the geography of the heavens, with the various celestial motions, and with the positions of the heavenly bodies conspicuous to the naked eye.

3. **Psychology.**—One-half unit is allowed for the completion of some such textbook as Halleck: Psychology and Psychic Culture; or Pillsbury: Essentials of Psychology.

LIST C.

This list consists of various industrial subjects and Music. A maximum of four units is acceptable from the subjects contained in this list except that only two units in industrial subjects are accepted towards entrance to the Courses in Education. The amount that is acceptable in each subject of the list is also to be noticed.

1. Agriculture. ½-2 Units.

The courses under this head may consist of Agronomy, Crops, Horticulture, Irrigation, Animal Husbandry, etc. There should be laboratory work given as a part of each course, and notebooks should be presented.

2. Home Economics (Domestic Science). ½-3 Units.

(a) An equivalent of 180 hours of prepared work with at least two recitation periods a week in foods. (b) An equivalent of 180 hours of prepared work with at least one recitation period a week in clothing.

(c) An equivalent of 180 hours of prepared work with at least two recitation periods a week on the home. (Two periods of laboratory work are considered equivalent to one period of prepared work.) Of the foregoing, (a) will be accepted as a unit's work; or two half units taken from (a) and (b), or (a) and (c), or (b) and (c) will be accepted as a unit's work. The work is to be done by trained teachers, with individual equipment for students.

3. Commercial Subjects. ½-4 Units.

1. **Bookkeeping.**—One unit. This unit should consist of a working knowledge of both single and double entry bookkeeping for the usual lines of business. The student should be able to change his books from single to double entry and from individual to proprietorship. At least one set of transactions should be kept by single entry and at least two sets by double entry in which the uses of the ordinary bookkeeping books and commercial papers should be involved. The student should be drilled in the making of profit and loss statements and of balance sheets and should be able to explain the meanings of the items involved in both kinds of instruments. The work should be done under the immediate supervision of a teacher and the student should devote at least ten periods of not less than forty minutes full time in class each week for one academic year.

2. **Business law.**—One-half or one unit. The fundamental legal principles governing the business relations of men should be presented in this course by means of simple, concrete examples and problems so far as possible. While no attempt should be made to present the intricate phases of the subject, the student should not be led to believe that he has mastered the whole of the law as applied. The recommended text for this work is Huffcut: Essentials of Business Law.

3. **Commercial arithmetic.**—One-half unit.

4. **Commercial geography.**—One-half or one unit. The amount and character of the work accepted in this subject is indicated by the scope of textbooks such as Adams: Elementary Commercial Geography; Brigham: Commercial Geography; Macfarlane: Commercial and Industiral Geography; Redway: Commercial Geography; Robison: Commercial Geography; and Trotter: Geography of Commerce.

5. **Stenography.**—One-half to two units.

4. Manual Training and Arts. ½-2 Units.

1. **Drawing.**—Free-hand or mechanical drawing, or both. Drawing books or plates must be submitted. The number of units allowed depends on the quantity and quality of the work submitted.

2. **Bench, lathe, and forge.**—The number of units allowed depends upon the amount and quality of work done and evidence of the work completed should be submitted.

5. Music. ½-2 Units.

1. **Elements of composition; harmony and structure.**—One-half to one unit. Harmonic series. Intervals. Erection of the three primary triads. Root positions and doubling in major. Formation of scales. Relations of scale constituents to root and their tendencies. Consonance and

dissonance. Chord connection in four parts. Harmonizing of melodies. Elements of melodic construction; cadence; phrase and double phrase. Minor mode. Secondary triads and their use. Other sevenths (within the key). Suspension and retardation. Modulation (simple). Anticipation and embellishment.

2. **Instrumentation and vocal technique.**—One-half to one unit. Ability to perform with satisfactory technique and intelligent interpretation one or more numbers in one of the following sections: (a) pianoforte: Bach: Well-Tempered Clavichord: Prelude or Fugue; 2 and 3 part inventions; Mozart or Beethoven: a sonata; Chopin: study, nocturne, or prelude of moderate difficulty; (b) violin: Bach, Handel, Mozart, Beethoven: a sonata; Rode, Fiorillo: a study of moderate difficulty; Viotti, Spohr: a concerto; (c) orchestral instruments: similar ability to perform on any orchestral instrument; (d) voice: Bach, Mozart, Schubert, Schumann, Brahms, Franz, Wagner: songs; or an aria by an old Italian master.

In order to obtain entrance credit for voice or for any instrument, the candidate must submit to an examination, given by the department concerned, on one of the above numbers or a similar one and upon ability to read at sight a piece of moderate difficulty.

ADMISSION FROM OTHER COLLEGES AND UNIVERSITIES.

Students from other institutions who have pursued standard college courses will be admitted and will receive credit for such courses upon the presentation of proper certificates of creditable standing and honorable dismissal.

No student from another institution will be admitted to the University as a candidate for graduation later than October 1st of the academic year in which he expects to be graduated.

Students entering with advanced standing must complete in this University at least 30 hours of work before graduation.

ADMISSION OF ADULT SPECIAL STUDENTS.

Students over twenty-one years of age who are not working for a degree may register for courses of their selection without fulfilling the entrance requirements, provided they give evidence of ability to pursue such courses with profit.

ADMISSION TO THE GRADUATE SCHOOL OF ARTS, PHILOSOPHY, AND SCIENCES.

Candidates for the Master's degree are admitted to the Graduate School of Arts, Philosophy, and Sciences upon the completion of all the scholastic requirements for the Bachelor's degree in this University or some other institution of approved rank.

FEES, EXPENSES, AND EMPLOYMENT.

REGISTRATION FEES.

Annual registration fee	$5.00
Annual student activities fee	5.00
Non-resident fee, per semester	10.00

SPECIAL FEES.

Breakage fee $10.00

At the time of registration a deposit of ten dollars to cover possible breakage or damage to University property, is required of each student. This sum, or the remainder thereof after deduction for breakage or damage, is returned to the student at the end of the year or at withdrawal.

Late registration fee $1.00

All students presenting themselves for registration later than the time appointed for that purpose pay an extra fee of one dollar.

Laboratory fees, per semester hour $1.00

All students who take laboratory, field, or shop courses pay a fee of one dollar per semester hour of credit.

BOARD AND LODGING.

Board, per month	$16.00
Lodging, per month	2.00
Single meals	.25

Quarters for resident students are provided in two dormitories, one for men and one for women. These dormitories are divided into suites, each consisting of two bedrooms and a study. Two students occupy a suite. The rooms are furnished and electric light and steam heat provided, but the students supply their own bedding, towels, etc., and pay their own laundry bills. The men's dormitory is in charge of a Proctor, and the women's dormitory is supervised by a Matron.

Meals are taken in the University Commons, which is a separate building. All regular boarders are required to pay the full monthly rate of sixteen dollars. Day boarders pay twenty-five cents a meal. Fractional parts of a month are charged at single meal rates.

Bills for board and lodging must be paid strictly in advance, on the first of each month. The University authorities have no power to extend credit.

STUDENT EMPLOYMENT.

Many students earn the whole or a part of their expenses while attending the University. Students are employed on the campus wherever possible, as janitors, waiters in the dining hall, helpers in the kitchen, etc. There is also some demand from the homes and business houses of Albuquerque for student help.

The Student Employment Secretary registers without charge all students who apply for employment, and supplies employers with student labor as demanded. The attention of new students who intend to earn the whole or a part of their living is called to the following results of past experience:

1. There is always a waiting list for the jobs available on the campus. These jobs are usually assigned a year in advance to the students who have been in residence a year and who have made a good record in their studies and labor.

2. Students who can do any kind of domestic or manual labor **well**, and who have thoroughly good health, can earn their board and room by three hours' work a day. **But no student is advised to come to the University without resources sufficient for the expenses of one semester.**

3. The University curriculum is adapted to those who have control of their entire time for study. The student who must earn his living, therefore, should expect to enroll for less than the usual amount of University work.

Particular inquiries concerning opportunities for employment should be addressed to the Student Employment Secretary.

GENERAL REGULATIONS.

REGISTRATION.

REGISTRATION OF NEW STUDENTS.

All persons who expect to attend the University for the first time should send to the Registrar at their earliest convenience a certified record of their past work. No fee is charged and no obligation whatever is incurred in having the proper authorities pass upon the credentials of prospective students. The University will gladly accredit records of past work no matter how remote are the prospects of attendance.

On the first day of the term or semester new students shall first pay the matriculation, tuition, and other fees at the office of the Secretary of the University. They shall then furnish the Librarian the data called for by the Information Card blanks, and then consult the registration committee in the Registrar's office and under their direction enroll in the courses which they are qualified to pursue.

REGISTRATION OF OLD STUDENTS BEFORE END OF SEMESTER.

Students in residence are required to make out their program of studies for the succeeding semester before the close of the current semester and to file the same with the Registrar. They are not required, however, to pay their fees for the succeeding semester until the Registration Day at the opening of that semester.

LATE REGISTRATION.

Registration in courses or payment of fees after the time appointed for these purposes, except for reasons approved by the President or Dean, may be effected only after the payment of the late registration fee of one dollar.

CHANGE OF REGISTRATION.

No student may drop a course after the beginning of that course without the consent of his major professor or advisor and of the instructor in charge. No student may drop one course and enroll in another after the third week of the semester unless he has been passing in the former course.

STUDENT ADVISORS.

Each student arranges his program of studies with the advice of some member of the Faculty, whose final approval must be secured on the selection made. The following is a list of student advisors for the current year:

College of Arts, Philosophy, and Sciences:
- Freshmen and Sophomores: Committee on Admission and Standing.
- Juniors and Seniors: Major Instructor.
- Course in Commerce: Professor BONNETT.
- Course in Latin-American Affairs: Professor HILL.
- Course Preparatory to Law: Professor BONNETT.
- Course Preparatory to Medicine: Professor WEESE.

Graduate School of Arts, Philosophy, and Sciences: Major Instructor.

College of Fine Arts: Assistant Professor SEDER.

Courses in Education: Professor HODGIN.

College of Engineering:
- Course in Chemical Engineering: Professor CLARK.
- Course in Civil Engineering: Professor WAND.
- Course in Electrical Engineering: Professor BRENNEMAN.
- Course in Geological Engineering: Professor KIRK.
- Course Preparatory to Mechanical Engineering: Professor BRENNEMAN.
- Course Preparatory to Mining Engineering: Professor KIRK.
- Course Preparatory to Sanitary Engineering: Professor WAND.

Course in Home Economics: Associate Professor LATHROP.

Division of Preparatory Studies: Committee on Admission and Standing.

CREDIT HOURS.

CLASS HOURS AND CREDIT HOURS.

A class hour consists of 53 minutes and one class hour a week of recitation or lecture throughout a semester earns a maximum of one credit hour. One class hour of laboratory work, language practice, orchestra, chorus, or Physical Training earns a maximum of one-half credit hour. One class hour in Piano, Violin, or Voice earns a maximum of two credit hours.

DEDUCTIONS IN CREDIT HOURS.

Deductions in credit hours are made for the following delinquencies and in the following ways:

1. When unexcused absences exceed in number the maximum number of credit hours that may be earned in a course, credit is diminished at the rate of one-tenth of a credit hour for each unexcused absence.

2. When deductions under the foregoing clause amount to one-third of the maximum of credit hours which may be earned, the student is dismissed from the course involved and given a grade of F.

3. Absences due to late registration are counted on the same basis as absences incurred after registration.

EXCUSED ABSENCES.

A student may offer reasons for absence to the Chairman of the Committee on Admission and Standing and if these reasons are accepted he is given a permit, in the discretion of the instructor involved, to make up lost work. If the permit is filed with the Registrar before the end of the semester and bears a statement that the lost work is made up, deduction for such absence will not be made in the record of credit hours. The application for permit to make up lost work must be made within two weeks after absences are incurred.

MAXIMUM SCHEDULE.

No candidate for a B. A. degree may register for more than 17 credit hours, nor any candidate for a B. S. degree for more than 20 credit hours, unless his standing for the previous semester be at least G in all his courses except one, with no grade below M, and then only by presenting a written petition to the Committee on Admission and Standing, who may, in their discretion, grant permission to register for extra work up to a maximum of 20 credit hours.

MINIMUM SCHEDULE.

No student shall be registered for fewer than 12 hours per semester except by permission of the President.

GRADING AND EXAMINATIONS.

GRADES.

The grades of students are based upon daily work and upon examinations and are intended to be an indication of the quality of work done. The markings used are S, G, M, W, I, X, and

F, standing respectively for Superior, Good, Medium, Weak, Incomplete, Conditioned, and Failed, and represent respectively 96-100, 86-95, 76-85, 71-75, work not completed, 61-70, and below 61. No substitutions may be made in courses in which X or F has been earned whenever these courses are required for graduation. Students receiving I in a course are permitted within the following semester to complete the unfinished work. When the work has been completed they will receive the grade and amount of credit to which their record is entitled. Students receiving a grade of X in any course are "conditioned" in that course. Such students may receive a passing grade and credit in that course if the condition imposed is removed in a way prescribed by the instructor under whom the condition is incurred. Any condition remaining unremoved at the end of the semester following its incurrence automatically becomes a failure. Only one opportunity is allowed to remove a condition.

SPECIAL EXAMINATIONS.

Special examinations, taken at other times than regularly with the class, except entrance examinations or examinations for advanced standing, may be taken only after the payment of a special examination fee of $2.00 to the Registrar and the issuance by him of a permit for the special examination.

No final examination may be given to a class or to an individual before the time appointed by the Committee on Schedule and Curriculum.

SUSPENSION FOR DISHONESTY IN EXAMINATIONS.

A student detected in giving or receiving aid in a quiz, test, or examination renders himself liable to suspension or expulsion.

SUSPENSION FOR LOW GRADES.

Any student who fails to maintain a passing grade in one-half of the schedule for which he has been registered, in the discretion of the Committee on Admission and Standing and of the President of the University may be suspended from the University and debarred from registration for at least 18 weeks.

HONORABLE DISMISSAL.

A student who leaves the University before the close of a semester without the permission of the President and Registrar will not be considered honorably dismissed.

UNIFORM GRADUATION REQUIREMENTS.

QUALITY OF WORK.

The number of credit hours required for all diplomas and degrees conferred by the University is based upon average work which is designated by M. For every 15 credit hours of S work, the amount required for graduation is diminished by two credit hours. For every 15 credit hours of G work, the amount required for graduation is diminished by one credit hour. For every 15 credit hours of W work, the amount required for graduation is increased by one credit hour.

PHYSICAL TRAINING.

Physical Training 1 and 2 or 3 and 4 must be taken by all students in all Colleges and Courses of the University, in their Freshman year or in the first year of residence in the case of students who enter with advanced standing but without credit in this subject. The attainment of a passing mark in two of these four courses is prerequisite for any baccalaureate degree or undergraduate certificate and the credit hours thus earned can not be applied to the number otherwise required for a degree or certificate.

SCHEDULE OF COURSES

	8–8:53	9–9:53	10–10:53
Biology		91 W	91-26 M W F 51-52 T Th S
Chemistry	1 M W F Lect T Lab 2 W Lect T Th Lab	1 T Lab 2 T Th Lab 61-62 T Th S	
Civ. Eng.	105 M-F 106 T W Th F		1 S 108 M W F 130 T Th S
Economics	61-64 M W F	I 1 M W F; II 1 T Th S	65-66 M W F
Education	57-58 M W F	9-10 M W F	1-2 T Th S
Elec. Eng.			
Eng. Lang.	I 1-2 M W F II 1-2 T Th S	III 1-2 M W F 57-58 or 55-56 T Th S	IV 1-2 M W F V 1-2 T Th S
Eng. Lit.		121-122 T Th	141-144 M W F
French	1-2 M-F		51-52 M-F
Geology	5-7 or 8 M T W Th 58 T Th	1-2 M T Th 101-102 M W	51-52 M T W Th 56 a T Th Lect M W Lab
German			
Gov.		I 2 M W F II 2 T Th S	
Greek			
History		73-74 M W F 97-98 T Th	
Home Ec.	55-56 T W Th	55-56 T Th 1 M F 62 M F 105 M F	1 M F; 62 M W F 105 M W F 73-74 T Th 126 T W Th F
Latin		31-32 S 101 or 105 M W F 102 or 106 M W F	3-4 M-F
Libr. Econ.	1-2 T Th		
Math.	21 M-F	51-52 M-F Sem 1 M W F Sem 2 T Th	
Music		1-2 T Th S	
Phil.			81-82 T-F
Phys. Tr.		I 1-2 M W F II 1-2 T Th S	III 1-2 M W F IV 1-2 T Th S
Physics	51-52 T-S	51-52 S	51-52 S; 1-2 M-Th
Prac. Mech.	Hours to be arranged		
Psych.	57-58 or 101-104 M W F	56 M W F	
Spanish	111-112 M W F 141-142 T Th S		I 51-52 M F

OF INSTRUCTION.

11–11:53	1–1:53	2–2:53	3–3:53	4–4:53
51-52 T W Th S		1 W F Lect T Th Lab	1 T Th Lab	
	51-52 M-F	51-52 M-F	101-52 M-F	
1 S 112 M W F	51-52 M-F 101 M W F	51-52 T Th 101 M W F 1 T Th 2 M W F	101 M W F 1 T Th 2 M W F	
		5-6 M W F		
51-52 M W F 64 T 72 Th	15-18 T 65 M W F			
	101-102 M-F	121-122 T 131 M W F	121-122 T 131 M W F	121-122 T
		101-102 M W F, 61-62 or 65-66 T Th		
41-141 b T Th S 71-72 M W F		75-76 M W F		
	151-152 T Th			
56 a M W Th Lab	5-7 or 8 Tu Lab 101 T Th Lab	5-7 or 8 T Lab 1-2 W Lab 101 T Th Lab	1-2 W Lab 101 T Th Lab	104 W 8 p m
1-2 M-F	151-152 M W	51 52 M-F		
71-80 M W F 53-54 T Th S	52 M W F			
91 T Th	1-2 & 12 M-F			
61-62 M W F 81-82 T Th	I 1-2 M W F II 1-2 M T Th	131-132 T Th		
	181 M W F 194 M T Th F	2 T W Th 181 M W F 194 M-F	2 T Th 115 M W F 132 M T W Th	115 M W F
21-22 M W F 1-2 S 72 T Th	1-2 M F			
	1-12 M F 143 M W F	3-6 M-F		
41-42 S 61-62 T Th				
83-84 or 121-122 T Th S				
			II 3-4 M W F	
51-52 S		1-2 F Lab	1-2 F Lab	1-2 F Lab
	51 M W Lect Quiz I F 153 T Th	51 Quiz II F II 53 M W I 53 T Th	II 53 M W	
I 1-2 M-F	II 1-2 M-F	II 51-52 M-F		

COURSES IN THE DEPARTMENTS OF INSTRUCTION.

Courses numbered 1-50 are open to Freshmen, 51-100 to none below Sophomore rank, 101-150 to none below Junior rank, 151-200 to none below Senior rank, 201 and above to graduates only. Courses with odd numbers are intended to be given during the first semester, those with even numbers during the second semester.

ANIMAL BIOLOGY.

ASA ORRIN WEESE, Professor.
PAUL MENAUL, Assistant.

Group IIIA. Biology.—The requirement in this group may be met by Animal Biology 1 and 2, Animal Biology 1 and Botany 14, Animal Biology 26 and Botany 91, or Animal Biology 1 and 26.

Major course.—To obtain recognition for a major course in this department the student must present credits in Courses 1, 2, and 191 or their equivalent, and Botany 14 or its equivalent; but credits obtained in Animal Biology 1, 2, and 26 and Botany 14 shall not be counted as fulfilling the requirement as to the number of hours to be taken in the major course, except that, at the discretion of the head of the department, credits in excess of eight hours gained in these courses may be so counted.

Minor study.—For a minor the student must present twelve credits, including Course 1.

Equipment.—The department of Animal Biology is temporarily located in quarters in the new Chemistry Building, the rooms including a large general laboratory 24 by 60 feet, a lecture room 24 by 50 feet, office, stock room, etc. The general laboratory is so equipped that different sections of the room may be used at the same time by various classes. The laboratory is well equipped for the courses offered, the apparatus including an adequate supply of microscopes, with such accessories as mechanical stages, micrometers, camera lucida, ultra-microscopic attachments, microtomes, paraffin baths, microphotographic camera, etc. There is a large collection of illustrative models and charts for use in the laboratory and the lecture room. In the lecture room is a Bausch and Lomb balopticon equipped for the projection of transparencies, opaque objects, and microscopic slides.

Primarily for Undergraduates.

1. **Zoology.**—A comparative study of the principles of structure, physiology, ecology, and development of animals. The laboratory work consists essentially of a detailed examination of one or more types in each phylum and a more superficial study of closely related organisms. A study of typical metazoan tissues is included. In the field, a beginning of the study of typical animal communities is made. Laboratory and field work, 2h. 4 hours.

2. **Zoology.**—A continuation of Course 1. The second semester's work includes the study of some typical vertebrate, e. g., the frog, a survey of the embryology of the chick, and the consideration of important biological theories. Laboratory work, 2h. 4 hours.

26. **Elementary physiology.**—A general survey of the work of the human body as a whole, with the relations and activities of its individual organs and systems of organs. The chemistry of the body processes. Prerequisites: Animal Biology 1 and Chemistry 1. Laboratory work, 1h. 3 hours.

51-52. **Histology.**—The minute structure of the animal as an organism built up of tissues combined into organs. Practice in general methods of micro-technique and the use of apparatus. Prerequisites: 1 and 2 or their equivalent. Laboraotry work, 3h. 5 hours, each semester.

54. **Histological technique.**—Practical work in the preparation of histological and embryological material. May be taken in connection with Courses 51 and 52. 3 hours.

55. **General embryology.**—The development of the individual treated from its broadly biological standpoint. The main facts of chordate development are considered in the laboratory. Prerequisites: 1 and 2 or their equivalent. Laboratory work, 3h. (Not given in 1917-1918.) 5 hours.

56. **Vertebrate embryology.**—A continuation of Course 55 in which special attention is given to the embryology of the chick. Practical work in the preparation of material for study. Reconstruction methods, etc. Laboratory work, 3h. (Not given in 1917-1918.) 5 hours.

64. **Comparative anatomy.**—The detailed study of the anatomy of some mammal, e. g., the cat; the study of the brain of the sheep; and the comparative study of other animals including man. Prerequisites: 1 and 2 or their equivalent. Laboratory work, 3h. (Not given in 1917-1918.) 5 hours.

71. **Entomology.**—The structure, physiology, development, and economic relations of insects. A discussion of the principles of taxonomy and their application to the classification of insects. Prerequisites: 1 and 2 or their equivalent. Laboratory work, 3h. (Not given in 1917-1918.) 5 hours.

74. **Hygiene and sanitation.**—This course includes personal, domestic, and public hygiene and sanitation; causes and dissemination of diseases; prevention of infectious diseases. Second semester. 2 hours. (BOYD)

85. **General ecology.**—A study of the factors which make up the home of the organism. Response of the organism to its environment. Adaptation and the origin of new forms. Regional relations of plant and animal life. Prerequisites: Animal Biology 1 and 2, and Botany 14, or their equivalent. Laboratory and field work, 3h. 5 hours.

For Advanced Undergraduates and Graduates.

101. **General physiology.**—The physical, structural, and functional features of living substance; the cell; present conditions and expressions of life; and the theories of the origin of life. The organism as a whole in relation to its surroundings. Prerequisites: 1 and 2, and two other courses in the department. (Not given in 1917-1918.) 3 hours.

104. Animal behavior.—This course, offered in collaboration with the department of Psychology, is listed as Course 104 in the statement of that department. The tropisms, instincts, and intelligence of animals, and the general evolution of the animal mind. Laboratory work, 1 or 2h. (Not given in 1917-1918.) 3 or 5 hours.

120. Organic evolution.—The history of the evolution idea, modern theories, experimental evolution, practical aspects, present-day problems in genetics. Lectures and assigned reading. Much attention will be paid to the reading and discussion of current literature pertaining to the subject matter of the course. Prerequisites: four courses in the department. 3 hours.

171-172. Advanced work along the lines indicated by the above introductory courses may be elected by students having proper preparation. Problems. Semi-independent work. Details must be arranged in consultation with the professor in charge.

191-192. Thesis for students whose major has been elected in this department, and research for graduates.

BOTANY.

ASA ORRIN WEESE, Professor.
PAUL MENAUL, Assistant.

Group IIIA. Biology.—The requirement in this group may be met by Courses 14 and 19 (3 hours), or 14 and 91. For other combinations see Animal Biology.

Major course.—No major course is at present offered in this department. For the requirements for a major course in Biology, see Animal Biology.

Minor study.—For a minor, the requirement is twelve hours in Biology, of which at least ten must be in Botany.

Equipment.—For a description of apparatus and laboratories see Animal Biology. The equipment for bacteriology includes complete apparatus for individual laboratory work, oil immersion lenses, autoclaves and other sterilizers, incubators, and apparatus for dark ground illumination.

Primarily for Undergraduates.

14. Botany.—A study of the evolution of the plant kingdom and the underlying principles of plant life. Type studies of representatives of the principal plant groups. The life processes in the individual plant. Laboratory work, 2h. 4 hours.

19. Plant identification.—A laboratory and field course in the identification and recognition of common flowering plants of New Mexico. While this is not a formal course in taxonomy, the general principles of plant classification will be considered. The manuals of Wooten and Standley, Coulter and Nelson, and Clements will be used. Laboratory and field work, 2h. (Not given in 1917-1918.) 2 or 3 hours.

91. Bacteriology.—Morphology, culture, and physiology of micro-organisms. Microbiology of air, water, and special industries. Plant and animal diseases and their control. Household bacteriology. Prerequisite: Chemistry 1. Laboratory work, 1h. 3 hours.

85. **General ecology.**—A study of the factors which make up the home of the organism. Response of the organism to its environment. Adaptation and origin of new forms. Regional relations of plant and animal life. Prerequisites: Botany 14 and 19, and Animal Biology 1, or their equivalent. Laboratory and field work, 3h. 5 hours.

For Advanced Undergraduates and Graduates.

120. **Organic evolution.**—The history of the evolution idea, modern theories, experimental evolution, practical aspects, present-day problems in genetics. Lectures and assigned reading. Much attention will be paid to the reading and discussion of current literature pertaining to the subject matter of the course. Prerequisites: four courses in Biology. 3 hours.

171-172. **Advanced work** along the lines indicated by the above introductory courses may be elected by students having proper preparation. Problems. Semi-independent work. Details must be arranged in consultation with the professor in charge.

CHEMISTRY.

JOHN D. CLARK, Professor.

Group requirements.—The requirements in Group IIIA may be satisfied by Courses 1-2.

Major course.—For a major course in this department the student must present credits in Courses 1, 2, 51, and 52 or their equivalent, but Courses 1, 2, and 51 shall not be counted as fulfilling the requirements as to the number of hours taken in the major subject, except that in the discretion of the professor in charge of the department, credits in excess of eight hours gained in these courses may be so counted.

Minor study.—For a minor the student must present credits in Courses 1, 2, 51, and 52.

Graduation honors.—Honors for graduation from the College of Engineering may be obtained in any course.

Equipment.—The department of Chemistry is housed in the new Chemistry Building which was completed this year. This building is thoroughly fireproof and strictly modern. It is equipped for accommodating two hundred students. A large freshman laboratory, a laboratory for qualitative analysis, and a quantitative and organic laboratory occupy the larger portion of the building. A small special laboratory, a chemistry library, a balance room, offices, stock rooms, lavatories, locker rooms, and an apparatus room, together with a large lecture hall, make up the total space devoted to chemistry within the building. Within the patio of the building are to be found work benches equipped with gas and water, so that students may do much of the ill-smelling laboratory work in the open air. Modern, fan-ventilated hoods serve to keep the indoor laboratories free from disagreeable odors. The laboratories are well equipped with the usual apparatus needed in the study of chemistry in its various branches. Apparatus for research is added as needed.

Primarily for Undergraduates.

1. **Inorganic chemistry.**—Lectures and recitations on general and theoretical chemistry, illustrated by demonstrations, charts, lantern slides

specimens, etc. Solution of chemical problems is required. Laboratory, 1 period a week. 4 hours.

2. **Inorganic chemistry.**—Course 2 is a continuation of 1, but the time will be spent mainly on the metallic elements, their metallurgy, salts, etc. Prerequisite: 1. Laboratory, 2 periods a week. 4 hours.

51. **Qualitative analysis.**—Laboratory practice with occasional lectures. The student is expected to become proficient in the separation and detection of the common acids and bases, and to keep a full set of notes. Frequent quizzes are given. These dwell upon the theory of the work. Prerequisites: 1 and 2. 5 hours.

52. **Quantitative analysis.**—This course gives practice in the greatest variety of manipulation. Types of the important methods are taken up. Analyses of ores, metals, slags, alloys, fuels, soils, fertilizers, dairy products, food stuffs, waters, urine, poisons, drugs, gases, and oils are taken. The needs of the individual student will be considered in the work. Prerequisite: 51. Laboratory, 5h. 5 hours.

101-102. **Quantitative analysis.**—Continuation of 52. Laboratory, 5h. 5 hours, each semester.

61. **Organic chemistry.**—Lectures and recitations. A study of the chemistry of the carbon compounds. Laboratory work taken in Course 62. Prerequisites: 1, 2, and 51. (Given in alternate years.) 3 hours.

62. **Organic chemical laboratory.**—This course consists mainly of laboratory practice in preparing and purifying organic compounds and a study of qualitative organic reactions and analyses. Prerequisite: 61. Laboratory work, 3h. (Given in alternate years.) 3 hours.

112. **Industrial chemistry.**—This course consists of lectures on chemical manufactures such as sugar, sodium carbonate, fertilizers, sulfuric acid, glass, matches, paints, dyes, illuminating gases, petroleum, etc. The lectures will be illustrated by lantern sides and charts. Prerequisites: 1, 2, and 51. (Given in alternate years.) 2 hours.

113. **Metallurgy.**—This course consists of lectures describing the processes employed in the smelting of iron, lead, copper, zinc, silver, gold, etc. Prerequisites: 1, 2, and 51. (Given in alternate years.) 2 hours.

For Advanced Undergraduates and Graduates.

111. **Physical chemistry.**—This work consists of advanced study of chemistry theory. Practice experiments will be performed with the aid of students in the determination of vapor density, molecular weights, specific heats, etc., and the study of isomorphisms, the phase rule, etc., will take up much of the time. Prerequisites: 1, 2, 51, and 52. (Given in alternate years.) 5 hours.

131. **Geological chemistry.**—This course is intended primarily for major students of geology. The work of the course covers the main features of the chemistry of the atmosphere, hydrosphere, and lithosphere, and especially those processes involved in the formation, alteration, and decay of minerals and rocks. Prerequisites: Geology 1, 2, 3, and 4, and Chemistry 111. (Given in alternate years.) 2 hours.

141-142. **Advanced work for individual students.**

171-172. **Thesis.**—5 hours.

CIVIL ENGINEERING.

ANTHONY W. WAND, Professor.
IRA B. LANPHIER, Instructor.

Graduation honors.—Graduation with honors from the College of Engineering may be attained by fulfilling the requirements in 45 hours of the courses following: 51, 52, 101, 106, 108, 112, 151, 152, 155, 156, 171, 172, 190.

Equipment.—The department of Civil Engineering is located at present in the Administration Building. The draughting room is equipped with desks and drawing boards, but each student is required to furnish his own instruments, T-square, and triangles. There is also complete equipment for surveying, consisting of transits, levels, chains, plane tables, rods, compasses, pantograph, planimeter, etc.

For Advanced Undergraduates.

51. Elementary surveying.—The theory, use, and adjustment of the compass, level, and transit. Field work; the determination of distances with chain and tape; the determination of areas with the transit, plane table, and compass; profile and differential leveling; city and farm surveying; practical problems. Prerequisites: Civil Engineering 1 and 2; Mathematics 1. 5 hours. (WAND.)

52. Topographical surveying.—The theory and use of the plane table, stadia, and other instruments used in making a topographical survey. The plotting of field notes for making a complete topographic map. Prerequisites: 1 and 51. 4 hours. (WAND.)

54. Railway curves.—An introductory course in the computation and field location of simple and compound curves as applied to railroad work. Prerequisites: 1, 2, and 51. 1 hour. (WAND.)

101. Railroad surveying.—The principles of economic location and the construction of railways. The theory of field and office work necessary to survey and construct a railway line. Preliminary and location survey of a line of railroad, in which the student makes a complete set of notes, maps, profiles, and estimates. Prerequisites: 51, 52, and 54. 5 hours. (LANPHIER.)

105. Analytical mechanics.—The mechanics of engineering problems; fundamental concepts; statics; kinematics; kinetics; work and energy; impulse and momentum. Prerequisite: Mathematics 52. 5 hours. (WAND.)

106. Mechanics of materials.—The mechanics of materials and problems in engineering construction. Theory of beams, columns, and shafts. The study of requirements for structural materials. Prerequisites: Civil Engineering 105, and Mathematics 52. 4 hours. (WAND.)

108. Hydraulics.—The elementary principles and theory of the mechanics of fluids; pressure and flow of water through orifices, channels, weirs, turbines, and water wheels. Prerequisites: Civil Engineering 105, Mathematics 52. 3 hours. (LANPHIER.)

112. Graphic statics.—Elements of graphic statics; determination of stresses in bridge and roof trusses. Solution of practical problems. Pre-

requisites: Civil Engineering 1 and 105, Mathematics 52. 3 hours. (WAND.)

130. **Road engineering.**—Construction of earth, gravel, concrete, and bituminous macadam roads. Methods of construction, cost, and durability of roads. Street pavements; grades, kinds, and costs of pavements, maintenance and cleaning. Prerequisites: Civil Engineering 51, 52, and Mathematics 52. 2 hours. (LANPHIER.)

151. **Masonry construction.**—The study of the nature of stone, brick, lime, cement, sand, gravel, and concrete as applied to engineering. The theory of masonry structures; foundations, culverts, retaining walls, and arches. Prerequisites: 105, 106, and 112. 4 hours. (Not given 1917-1918.)

152. **Reinforced concrete.**—The principles of reinforced concrete beams, slabs, columns, retaining walls, dams, arches, and other masonry structures. The design of reinforced concrete structures. Prerequisites: 105 and 151. 3 hours. (Not given 1917-1918.)

155. **Bridge analysis and detail.**—Computation of stresses in various forms of bridge trusses. Investigation of a bridge from a detailed shop drawing; standard details for bridges; estimate of cost. Prerequisites: 105, 106, and 112. 5 hours. (Not given 1917-1918.)

156. **Bridge design.**—The design of a railroad plate girder and truss span; sections and details drawn, and a complete set of drawings. Prerequisite: 155. 5 hours. (Not given 1917-1918.)

157. **Metal structures.**—The design and calculation of stresses in mill and steel-skeleton buildings; standard details. Complete design of a mill building. Prequisites: 112 and 155. 2 hours. (Not given 1917-1918.)

158. **Advanced bridge analysis.**—The theory of continuous, cantilever, draw, suspension, and metal arch bridges. The history of large bridges of the world, erection and cost. Prerequisite: 155. 2 hours. (Not given 1917-1918.)

171. **Water supply.**—Source of supply; hydraulics of wells; stream flow; reservoirs, conduits, and pipe lines; pumps and pumping machinery; stand-pipes and elevated tanks; water supply systems. Prerequisites: Civil Engineering 105 and Physics 112. 3 hours. (Not given 1917-1918.)

172. **Sewerage.**—The design and methods of construction of sewerage systems; surveys and general plans; hydraulics of sewers; house sewerage and its removal; sanitary necessity of sewers; sewage disposal; estimate and specifications. Complete design and estimate of a small system. Prerequisites: 105, 108, and 171. 3 hours. (Not given 1917-1918.)

180. **Contracts and specifications.**—The law of contracts as applied to engineering work; the study of engineering specifications. Each student prepares a contract and a complete set of specifications for some engineering structure. Prerequisites: Civil Engineering 105, 151, and 155, or Electrical Engineering 101 and 102. 2 hours. (Not given 1917-1918.)

190. **Seminar.**—Reading and discussion of important articles on engineering topics. Each student presents papers upon assigned topics and participates in the discussion of others. Prerequisite: full senior standing in Civil Engineering. 1 hour. (Not given 1917-1918.)

ECONOMICS.

CLARENCE E. BONNETT, Professor.

Group requirements.—This department, with the departments of Government and History, falls in Group II. To meet the requirement in this group, Economics 1 and Government 2 are recommended for six of the twelve hours. The other six hours may be elected from courses 61, 62, or 64, by permission of the department.

Major course.—For a major course in this department, Economics 1 and Government 2 are required as preliminary. Economics 61, Government 52 and 73, and History 73-74 are also required for a major course. Other work in related departments may be included.

Minor study.—A minor study consists of 12 hours in the department, in addition to Economics 1 and Government 2, which are required as preliminary.

Primarily for Undergraduates.

1. **Economic history of the United States.**—The main purpose of this course is to give the student an elementary knowledge of the economic phases of our national history. It deals with the development of industry and the origin of most of our modern economic, political, and social problems. 3 hours.

5-6. **Accounting.**—The first part of this course takes up a rapid review of bookkeeping. This is followed by elementary and, in the second semester, more advanced problems in accounting. 3 hours, each semester.

61. **Principles of economics.**—Economic principles are studied intensively in this course. It presents a comprehensive view of these principles in operation in the commercial and industrial world. 5 hours.

62. **Business organization and management.**—The manner in which modern commercial and industrial organizations are formed, and their functions in the present industrial system, are the main subjects of this course. 3 hours.

64. **Current economic problems.**—A continuation of 61, given over to a more intensive study of current problems. 3 hours.

65. **Salesmanship.**—In this course the problems of selling are considered in their fundamental aspects. 3 hours.

66. **Applied salesmanship.**—Application of the fundamentals of selling is made to special businesses, especially to retailing. Buying is also considered. 3 hours.

For Advanced Undergraduates and Graduates.

101. **Statistical methods.**—Methods of accumulating, formulating, and drawing conclusions from data, especially in the economic and social fields, form the chief considerations of this course. 3 hours.

111-112. **Money, credit, and banking.**—Besides dealing with standard money and currency, this course investigates the operation of the extended credit system of today; the bank is taken as the typical credit institution. In the second semester, a study of credit in its commercial aspects is given more consideration, and the work of the credit man and the commercial agencies is examined. 3 hours, each semester.

113. Public finance.—Methods of raising funds by the various sorts of taxes, and the ways in which these funds are expended, form the subject matter of this course. 3 hours.

114. History of economic thought.—This course aims to relate the course of economic thinking to the stages of industrial evolution, and to show the origin of many of the popular economic fallacies of the present day. 3 hours.

115-116. Economics of advertising.—In this course, the economic principles relating to human wants, the proper proportioning of factors, and other economic laws, are brought to bear on the problems of advertising. 3 hours, each semester.

117-118. Business law.—The common law governing business relations, and the statutes of New Mexico dealing directly with business—contracts, agency, etc.—constitute the subject matter of this course. 3 hours, each semester.

121-122. Railway economics.—The general character of the railroad business, the various methods of rate-making, and the effects of rate regulation upon railway finance and the channels of trade, constitute the main topics in this course. 3 hours, each semester.

161. Industrial combinations—trusts.—The organization, methods, and problems of trusts are here studied and the proposed solutions appraised. 3 hours.

162. Corporation finance.—Through this course the student is expected to obtain an understanding of the methods—illegitimate as well as legitimate—practiced in the financing of corporations. Prerequisites: 5-6 or the equivalent thereof. 3 hours.

EDUCATION.

CHARLES E. HODGIN, Professor.

Restrictions.—The following courses may not be counted towards the Bachelor of Arts degree: 9, 10, 52, 57, 58, and 72.

Primarily for Undergraduates.

1. History of education.—Education in the Orient, among the ancient classical nations, and in Europe from the beginning of Christian education to the present, with special consideration of the school systems of England, Germany, and France. The course includes a study of the great educational theorists and leaders. Special texts: Graves: A Student's History of Education; Monroe: Brief Course in the History of Education; and Painter: History of Education. 3 hours.

2. Education in America.—This course makes a survey of the educational conditions in colonial, revolutionary, and reorganization periods. It takes into account the development and influence of academies and high schools, and includes a study of the leading educators, of the higher educational institutions, state systems, educational extension work, and modern systems, including the Montessori method. Special texts: Dexter: History of Education in the United States; and Brown: Making of Our Middle Schools. 3 hours.

9. Study of spoken language.—The purpose of this course is to give a scientific basis for teaching the sounds of the language and an intelligent use of the dictionary. The subject is viewed under the following

topics: vocal physiology as the basis for the voice production; phonology; analysis and classification of vocal elements; diacritical marking; imperfections of English orthography; noted attempts at perfect phonetic representation; orthoepic elements—syllabication, accentuation, articulation, vowels and consonants in unaccented syllables; special dictionary study; comparisons of systems of dictionary markings; onomatopy; theories of the origin of speech and language; difference between speaking and singing tones. Special reading work will involve a consideration of rhythm in human speech and animal utterances, the discovery and significance of inflection, and the employment of gesture. Text: Hodgin: A Study of Spoken Language. 3 hours.

10. **Professional course in grammar.**—In view of the importance of the subject for teachers and to conform to the requirements of the State Board of Education for the professional state certificate this special review course in grammar is given. 3 hours.

15. **Education and school law in New Mexico.**—History of education in New Mexico as a territory. Early school laws. The change of education with statehood. The present school laws. The modern school system: its organization, rural schools, city graded schools, high schools, state institutions, and summer institutes. Early work of the denominational schools. Growth and influence of the State Educational Association. The library movement and educational extension work. 1 hour.

18. **Child study.**—This course considers the value of child study for educators, methods of studying the child, historical accounts of child study movement, records of results from experiments and observation, children of uncivilized peoples, child character in history and fiction, abnormal conditions in children; physical characteristics, plays, secret languages, fears, affections, ideas of punishment and reward, and religious notions. Lectures, readings, discussions. 1 hour.

51. **Principles of education.**—Consideration is given to education as physiological, sociological, and psychological adjustment; the nature and principles of education; analysis and synthesis; induction and deduction; concentration; the educational value of apperception; the doctrine of interest; correlation and the "culture epochs" theory. Text: Klapper: Principles of Educational Practice. 3 hours.

52. **Professional course in arithmetic.**—Conforming to the requirements of the State Board of Education for the professional state certificate, this special course is given as a review in arithmetic with reference to teaching the subject. Text: Kelso: Arithmetic. 3 hours.

57. **Special methods.**—In this course application of the general principles is made, and steps pointed out in the following school subjects: Reading: nature of reading, its general and comparative value. Analysis of the reading process. Mental steps in expression. Reading as a mode of thinking. Relative importance of silent and oral reading. Various methods of teaching supplementary reading. Text: Klapper: Teaching Children to Read. Language: theories of language origin. Means of communication preceding language. Relation of language to thought. How the child learns his vernacular. Methods of presenting language in the grades. Spelling and penmanship will receive attention from the standpoint of method. Arithmetic: special stress is placed upon

the development and close relation of the various phases of arithmetic. Psychical nature, origin, and development of number, which is the measurement of energy. Form, size, and weight defined as results of energy. The decimal system. Roman notation, its regular varying scale. Merits and demerits of the "Grube method" of numbers. Practical presentation of the subjects of fractions, decimals, percentage, interest, and other phases. Physiology and hygiene: the need of practical work in this subject. Relation of health to the work of life. Study of physical defects. School room hygiene. Need of exercise, rest, and recreation. Suggestions for right living in the home. Causes and effects of common diseases, and precautions to be taken. 3 hours.

58. **Special methods.**—General principles applied to the following subjects: Geography: the scheme of concentration with geography as a center. Logical and chronological analysis of geographical facts. The earth as a whole and as a member of the solar system. Knowledge to be gained by observation, by inference, by testimony. Study of geographic controls, responses, and type forms. Use and abuse of textbooks and maps. Importance of local geography. Dynamic ideas in geography. Value of newspapers and government publications in geography teaching. Consideration of a course of study in geography for the grades. Correlation of history with geography. Reference texts: Sutherland: The Teaching of Geography; and Holtz: Principles and Methods of the Teaching of Geography. History: the method work in history seeks to turn the student from the lifeless forms of memorized dates and diagrams to the dynamical interpretation of history as the movement of a people toward freedom. The two factors involved are mind and the facts of history. Historical forces. The organizing principle—the growth of institutional life. Educational and ethical value of interpretation. History in the grades. Use of biography. Historical reading for grades, and comparison of textbooks in history. 3 hours.

64. **Seminar in current educational problems.**—This course will discuss modern ideas and tendencies in education, and current problems. Some of the subjects considered will be: the changed conception of the school and its function, recent tendencies in correlating home work with that of the school, rural school development, socializing school centers, the modern playground movement, open air schools, vocational education and guidance, work of the Bureau of Education of the United States, and studies in current educational literature. 1 hour.

65. **School management and administration.**—The fundamental laws of the school. The different factors to be held in unity. School incentives. School economy. The ideal school building and study room. The class and the class individual system of grading. The Batavia and other plans. Relation of the school and the home. Special texts: Dutton: School Management; and Holmes: School Organization and the Individual Child. 3 hours.

72. **Observation and conference.**—The course will consist of observation of classroom work in various grades and schools under the direction of the professor in charge, or by special assignment. Conferences will be held for discussion of school visits, and for studying standards for judging class work. Prescribed readings and written reports will be required. The assignment for observation will be made with special reference to the particular interests of the individual students. 1 hour.

ELECTRICAL ENGINEERING.

JESSE L. BRENNEMAN, Professor.

Major course.—This department of the College of Engineering gives the special courses leading to the degree of B. S. in E. E. Major students are required to take all courses except numbers 142 and 199, which are optional.

Graduation honors.—Those students who complete 45 hours of the following list with a grade of G or better and earn no grades below M will be graduated with honors in Electrical Engineering:

Physics 51 and 52	10 hours
Physics 62	3 hours
Electrical Engineering 62	3 hours
Electrical Engineering 101 and 121	5 hours
Electrical Engineering 102 and 122	5 hours
Electrical Engineering 103 and 123	4 hours
Electrical Engineering 131	3 hours
Electrical Engineering 151 and 161	4 hours
Electrical Engineering 152 and 162	5 hours
Electrical Engineering 171	2 hours
Electrical Engineering 181 and 182	10 hours
Electrical Engineering 191	2 hours
Total	56 hours

Equipment.—The Electrical Engineering laboratory is located at present in Engineering Hall. Appropriation has been made for a new Engineering Building, to house Physics, Electrical Engineering, Civil Engineering, and Practical Mechanics. It is expected that the new location will be ready in the near future. The library contains a good collection of the latest text and reference books in Electrical Engineering, which are used continually in connection with the laboratory courses. The laboratory has five motor generator sets: two with constant speed induction motors, driving direct current generators; one with variable speed induction motor, driving direct current generator; one with variable speed direct current motor, driving alternating current generator; and one with direct current motor, driving direct current generator. There are three transformers of three kilowatts capacity each, a welding transformer, and several low voltage transformers. Four motor starters of different designs and seven generator rheostats are provided. There are twenty-five electrical measuring instruments, direct and alternating current voltmeters, ammeters, wattmeters, watthour meters, a powerfactor meter, and two frequency meters of various ranges, all of the latest design. In order that all of this equipment may be used to the best advantage, a specially wired testing table is provided, with six separate circuits containing nineteen switches, twenty-six fuses, rheostat shelves, and numerous places for meter connections. Tapered plugs are used to insert into tapered sockets on the testing table and various motor boards. This system very much reduces the laborious task of connecting apparatus for experiments and makes the laboratory one of the most convenient to be found anywhere. In addition to the regular class work, students have occasional opportunities to do old motor wiring, and to help on various

laboratory repairs, for which compensation is given. One or more times a year, inspection trips are arranged to the electric light plant, city shops, and mining camps, where a study of equipment under practical conditions may be made.

For Advanced Undergraduates.

55. Mechanism.—The motions and velocities of machine parts. Design of cams, gears, and belts. Text: Keown: Mechanism. Prerequisites: Physics 51, and Practical Mechanics 11. 2 hours.

62. Water power engineering.—Rainfall, stream flow, dams, storage basins, water wheels, and auxiliary equipment, following Mead: Water Power Engineering. Prerequisite: Civil Engineering 108. 3 hours.

101. Direct current machinery.—The construction, operation, and efficiencies of direct current dynamos and motors. The effects of changes in speed, load, connections, and temperature upon the operation of generators. The effects of changes in voltage, load, connections, and temperature upon the operation of the various types of motors. Texts: Langsdorf: Principles of Direct Current Machinery; and Crocker and Arendt: Electric Motors. For both Civil and Electrical Engineers. Prerequisite: Physics 52. 3 hours.

102. Alternating current machinery.—The construction, operation, and efficiencies of alternating current motors and generators of the synchronous and induction types. Study of the effects of power factor, speed, saturation, and current or voltage harmonics in the different types. Operation of transformers. For both Civil and Electrical Engineers. Text: chapters selected from Lawrence: Principles of Alternating Current Machinery; and Pender: Principles of Electrical Engineering; and Crocker and Arendt: Electric Motors. Prerequisites: Electrical Engineering 101 and 121; and Mathematics 51 and 52. 3 hours.

103. Direct current circuits and magnetism.—Intended to supplement Course 101 for Electrical Engineering students. Calculation of the voltage at various points in a complex system of conductors, generators, motors, and storage batteries. Calculation of the resistance of various shaped conductors, and the magnetic field about various shaped circuits. Division of load between direct current motors and generators running in parallel or series. Texts: Langsdorf: Principles of Direct Current Machinery; and Pender: Principles of Electrical Engineering. Prerequisites: Electrical Engineering 101, and Mathematics 51 and 52. 3 hours.

121. Direct current laboratory.—Testing of direct current generators and motors. Illustrative of the problems discussed in Course 101. For both Civil and Electrical Engineering students. Course 101 must be taken before or simultaneously. Text: Caldwell: Electrical Engineering Test Sheets with library references. 2 hours.

122. Alternating current laboratory.—Testing of alternating current generators, synchronous and induction motors. For both Civil and Electrical Engineering students. Course 102 must be taken before or simultaneously. Text: Caldwell and library. 2 hours.

123. Direct current laboratory.—Some additional methods of determining efficiencies and analyzing losses of direct current motors and generators. Operation of motors and generators in series and parallel.

Experiments on commutation. Course 103 must be taken before or simultaneously. Text: Caldwell and library. 1 hour.

131. **Electrical measurements and meters.**—A laboratory course treating of the measurements of various electrical quantities, together with methods of checking and calibrating the instruments and meters used in Electrical Engineering. Text: Jansky: Electrical Meters. Prerequisites: Physics 51 and 52. 3 hours.

142. **Machine design.**—The relative motions of machine parts, belting, gears, cams, chains, etc. Text: Kimball and Barr: Elements of Machine Design. Prerequisites: Mathematics 1 and 12, Physics 51, Civil Engineering 105 and 106, and Electrical Engineering 55. 3 hours.

151. **Alternating current machinery.**—Intended to supplement Course 102 for Electrical Engineering students. Combinations of inductances, resistance, and capacity in single phase, three phase, and quarter phase circuits. Solution of problems by symbolic method of notation. Operation of alternating current motors and generators in parallel. Theory and operation of the rotary converter, induction repulsion motor, single phase series motor, three phase commutator motor, inductor and induction generators. Texts: Pender; and Lawrence. Prerequisites: 102 and 122. 3 hours.

152. **Alternating current circuits and auxiliaries.**—Design of a transformer. Combinations and connections of transformers. Operation of transmission lines and distribution circuits. Change of voltage and current along line as caused by changes in resistance, inductance, power factor, capacity, etc. Resonance in circuits, protective devices for lightening, short circuits, overload, etc. Transient phenomena with direct and alternating currents. Texts: Ryan: Design of Alternating Current Machinery, Vol. II, Transformers; Lawrence: Electrical Machinery; Steinmetz: Transient Phenomena; and library. Prerequisite: 151. 3 hours.

161. **Alternating current laboratory.**—Generator and induction motor tests continued. Combinations of inductance, resistance, and capacity. Prerequisite: 122. Course 151 must be taken before or simultaneously. 1 hour.

162. **Alternating current laboratory.**—Testing rotary converters, alternating current commutator motors, induction regulators, potential and current transformers. Wave form. Prerequisites: 151 and 161. Course 152 must be taken before or simultaneously. 2 hours.

171. **Direct current dynamo design.**—The student is given the problem of designing a direct current motor or generator to meet given requirements. Text: Ryan: Design of Electrical Machinery, Vol. I, Direct Current Dynamos. Prerequisites: 101 and 121. 2 hours.

181. **Electrical applications.**—(a) Electro-chemistry and electro-metallurgy. (b) Illumination and photometry. Text: Barrows: Light, Photometry, and Illumination. (c) Electric railways. A study of the various direct current and alternating current systems. Course 151 must be taken before or simultaneously. Text: Harding: Electric Railway Engineering. 5 hours.

182. **Electrical applications.**—(a) Design of insulation for high voltages. Text: Peek: Dielectric Phenomena in High Voltage Engineering.

(b) Central stations and sub-stations; their equipment and arrangement; protective and emergency devices. (c) The application of electric motors to industries; their competition with other forms of power; and the competition of electricity with other forms of transmitting power. Cost analysis of electrical power. Prerequisites: 103 and 151. 5 hours.

191. Seminar.—The student is given or selects several topics in Electrical Engineering for special reading and report to class. Also discussion of current articles in the technical journals. Prerequisites: 103 and 151. 2 hours.

199. Seminar.—Students may choose with the consent of the major professor special topics in Electrical Engineering for reading and report. Hours credit is dependent upon the amount and quality of the work done.

ENGLISH LANGUAGE AND RHETORIC.

PROCTOR FENN SHERWIN, Professor.

Group requirements.—Courses 1-2 are required of all candidates for first degrees, in their Freshman year. Sophomores in the College of Arts, Philosophy, and Sciences must elect a suitable three-hour course each semester in English Language and Rhetoric or in English Literature.

Major course.—In addition to 1-2, which may not be counted towards a major course, the latter ordinarily consists of the following: a minimum of six other courses (18 hours) in this department; a minimum of 12-18 hours in English Literature; at least two of the following courses pursued as electives in Philosophy or Psychology: 81, 82, 83, 84, 121, 122, 57, 101, 104, 112; and 61-62 in History. The study, throughout three or four years of the course, of at least one other language and literature, particularly Greek, Latin, French, or German, is generally recommended. The following is a suggested outline for a four years' course:

	Fresh.	Soph.	Jun.	Sen.	Total
Required Eng. (IA)	6				6
Foreign Lang. (IB)	10	6	6	6	28
Hist., Gov., Econ. (II)	6	6	6		18
Math., Chem., Phys. (IIIA)	8-10				8-10
Biol., Geol., Psych. (IIIB)		6-10	0-6		6-16
Philosophy			6-8		6-8
Eng. Lang.		6	6	6	18
Eng. Lit.		6	6	0-6	12-18
Elective	0-6	0-6	0-6	12-24	12-42
Total	30-36	30-36	30-36	30-36	120-144

No arrangement of courses which does not include at least 36 hours of specialized study under its direction will be accepted by the department as a major course.

Minor study.—In addition to 1-2, which may not be counted towards a minor study, the latter consists of a minimum of four courses (12 hours) elected within the department and under its approval.

Restrictions.—1-2 are prerequisite to all courses in the department numbered above 50. Without the approval of the department no student may elect in any one semester more than one course in composition, i. e.,

of courses 53-68 and 101-102. Ordinarily not more than one or two courses in each of the following groups will be offered in any one semester: 51-60, 61-68, 93-132.

Speaking and writing for other departments and for student organizations.—The courses in composition are intended to be sufficiently flexible to permit the giving of credit for a satisfactory amount and quality of work done for other departments or for student organizations. Such work must be performed under the supervision of this department or, in the case of other departments, under the joint supervision of the departments concerned.

Primarily for Undergraduates.

1-2. **Rhetoric and English composition, oral and written.**—Lectures, recitations, oral and written exercises, conferences. Thorough review of English grammar. Oral and written practice of exposition and argumentation. Training in the use of sentences, paragraphs, and whole compositions. Written practice of description, and oral and written practice of narration. Exercises in the use of words. Letter writing. Prescribed for Freshmen. 3 hours, each semester.

12. **English grammar review (for teachers).**—3 hours.

51-52. **Vocal expression and interpretation.**—Vocal and platform practice. Instruction in the vocal interpretation of literary prose and poetry, including drama. Designed particularly for students who intend to teach English, or who are interested in practical dramatics and public reading. Prerequisites: 1-2. 1-6 hours, each semester.

53-54. **Narrative and descriptive speaking.**—Practice in the public presentation of original narratives and descriptions, and of condensed reproductions and adaptations from literature. Prerequisite: satisfactory ability shown in 2 or 67-68, or in manuscript submitted to the instructor. 1-6 hours, each semester.

55-56. **Occasional speaking.**—Study, with oral and written practice, of such forms as the speech for a cause, the eulogy, the commemorative address, the dedication, the toast and the after-dinner speech, speeches of presentation and acceptance, of welcome and farewell, the nomination speech, the inaugural address, the political speech. Prerequisites: 1-2. 1-6 hours, each semester.

57-58. **Expository and argumentative speaking.**—Practice in the presentation of original lectures, reports, and other expositions, and arguments dealing with literary, historical, political, economic, social, educational, scientific, technical, vocational, commercial, and other similar subjects. Prerequisites: 1-2. 1-6 hours, each semester.

59-60. **Debating and parliamentary law.**—Practice in writing briefs and arguments and in their use in public debate, and instruction in the conduct of parliamentary assemblies, writing minutes, reports, resolutions, etc. Prerequisites: 1-2. 1-6 hours, each semester.

61-62. **Essay (or magazine) writing.**—Practice in writing expository articles and personal essays, with some attention to book reviewing. Designed both for students interested in writing magazine essays and for students writing course papers or theses in other departments. Prerequisites: 1-2. 1-6 hours, each semester.

63-64. **Business writing.**—Practice in writing business letters, reports, advertisements, etc. Prerequisites: 1-2. 1-6 hours, each semester.

65-66. **News writing.**—Practice in writing simple, feature, re-write, and follow-up news stories and headlines, and in reporting speeches and interviews, court, social, sporting, human interest, and dramatic news, etc. Prerequisites: 1-2. 1-6 hours, each semester.

67-68. **Short-story writing.**—Prerequisite: satisfactory ability shown in 2 or 53-54, or in manuscript submitted to the instructor. 1-6 hours, each semester.

93. **Chaucer.**—An introductory course with extensive reading. 3 hours.

100. **Introduction to medieval English literature, c. 700-1557.**—Lectures, textbook, and selected readings, largely in translation. (Exclusive of Chaucer.) 3 hours.

For Advanced Undergraduates and Graduates.

101-102. **Principles and practice of literary criticism.**—Study and discussion of the principles of literary criticism, and practice in writing reviews and criticisms. Designed particularly for students who are doing major work in English Literature. 3 hours, each semester.

103-104. **History of rhetoric and literary criticism.**—Lectures and readings on the development of the principles and practice of rhetoric and literary criticism from Aristotle to the Renaissance, and from the Renaissance to the present day. 3 hours, each semester.

109-110. **Types of literature—poetry and prose: proseminar.**—Reading in class of one or more specimens of the following types of poetry: narrative, dramatic, philosophical or didactic, and lyric; and of the following types of prose: oration, essay, short-story, comedy, and novel; with discussion of rhetorical and literary qualities and application of principles of literary criticism in fortnightly or term papers based on outside reading and investigation. Open to approved students. 2 or 3 hours, each semester. (Not given in 1917-1918.)

131. **Short-story.**—Historical and critical study of the short-story from Poe and Mérimée to Kipling, with some consideration of ancient, medieval, and Renaissance antetypes. 3 hours. (Not given in 1917-1918.)

132. **Literary essay.**—Reading and study of the literary essay in English from Montaigne and Bacon to the present day. 3 hours.

ENGLISH LITERATURE.

ETHEL A. HICKEY, Professor.

Group requirements.—Sophomores in the College of Arts, Philosophy, and Sciences must elect a suitable three-hour course each semester in English Literature or English Language and Rhetoric.

Major course.—Students taking a major course in English Literature must complete Courses 71, 72, 73, 74, 75, 76, and at least nine other hours in the department. A minimum of six to twelve hours in English Language and Rhetoric, exclusive of Courses 1 and 2, is also required. Courses 101-104 are especially recommended.

Minor study.—A minor in the department of English Literature will consist of a minimum of twelve hours, exclusive of Course 41.

Primarily for Undergraduates.

41. **Introduction to English literature.**—A general survey of the historical development of English literature by means of readings chronologically arranged, a brief textbook, and interpretative lectures from the instructor. 3 hours.

For Advanced Undergraduates and Graduates.

71. **English literature, 1557-1599.**—3 hours.

72. **English literature, 1599-1660.**—3 hours.

73. **English literature, 1660-1781.**—(Not given in 1917-1918.) 3 hours.

74. **English literature, 1782-1832.**—(Not given in 1917-1918.) 3 hours.

75. **English literature, 1833-1910 (poetry).**—3 hours.

76. **English literature, 1833-1910 (prose).**—3 hours.

82. **American literature.**—3 hours.

121. **Drama, 1551-1642.**—History and study of the English drama from the opening of the modern period to the outbreak of the Civil War. 2 hours.

122. **Drama, 1660-1916.**—Continuation of the above from the opening of the theatres to the present day, with consideration of contemporary forms and tendencies. 2 hours.

127. **Novel, 1579-1800.**—The historical development of the English novel from Lyly's Euphues to Jane Austen. 2 hours.

128. **Novel, 1800 to the present day.**—Continuation of the above to Stevenson and Kipling. 3 hours.

141. **Shakespeare.**—3 hours.

144. **Tennyson and Browning.**—3 hours.

91-94. **Greek in English translation.**—(See Greek Language and Literature.) 2 hours, each semester.

GEOLOGY.

CHARLES T. KIRK, Professor.

Group requirements.—Geology falls in Group IIIB. Courses meeting group requirements are: 1-2, 5-7, 5-8, or 7-8.

Major course.—The requirements for the major course are: 1-2, 3-4 or 101, and 5, or their equivalents; but credits in 1-2, and 5, 7, or 8 may not be accounted as fulfilling requirements as to the number of hours to be taken in the major course, except that at the discretion of the professor in charge of the department, credits in excess of 8 hours may be so accounted. Not more than 5 hours' credit in 105 may be accounted toward a major.

Minor study.—For the minor the student must present credits in courses 1-2; additional minor work should include either 3-4 or 101.

Graduation honors.—In the course in Geological Engineering 45 hours' credit of suitable "honor" grade, as defined elsewhere in the catalogue, may be selected from the 55 hours accountable toward the student's major in the following list: Geology 1 (or 102), 2, 3-4 (or 101), 5, 51, 52, 55, 57, 103, 104, 105 (5 hours), 151.

Equipment.—The departmental equipment of the geologic laboratory has been much improved recently by accessions in various lines. The laboratory for determinative mineralogy has been resupplied to accommodate the increasing number of students. To the glass crystal models and Kranz axial models there are added numerous natural crystals, and a student set of minerals of wide range. Modern petrographic microscopes and an improved apparatus for the study of opaque minerals and metals by reflected light are available, as well as projectoscope with reflecting device and petrographic accessories. Camera lucida, and the best type of photo-micrographic apparatus in the market are at hand, together with complete dark room laboratory equipment. About 300 thin sections of rocks and minerals and as many lantern slides are used with these devices. A Westphal balance and heavy solutions, and a spectroscope, make for refined determinations. Geologic slide rules are in stock for the computation of mineral and rock components. High-temperature apparatus is being installed for the investigation of those geologic processes which are much accelerated in the neighborhood of 200 degrees centigrade. For field work there are both telescopic and sight alidades with plane-tables, geologists' compasses, Locke level, aneroid barometer, field kit for determinative mineralogy, hammers, etc., and a complete camping outfit. The highest obtainable grade of equipment for microscopic, petrographic, lantern slide, and opaque projection has been installed. These presentation devices are supplemented by complete sets of paleontologic and geologic wall charts. Other schools and museums reciprocate exchanges for geologic material from the Southwest. Private collections are constantly being donated or loaned, for here they can do a greater good to a much greater number than when kept in private homes or museums. The American Museum of Natural History, at New York City, and the National Museum, at Washington, D. C., have sent extensive collections of fossils and many interesting rock specimens. Mr. Hugh Bryan, of Albuquerque, has recently collected and arranged for the University a complete collection of British types. The John Lee Clarke collection of minerals, rocks, and fossils forms a valuable lot of material. The Pratt and the John R. Lee collections of minerals are available for handling and study. The Connecticut series of rocks, a set catalogued and sent out by Yale University, is representative of that classic region which is often called the "cradle of American geology." The University laboratories and library are at the service of the New Mexico Geological Survey, which has its headquarters at the University, and in turn the University museums and library are the depositories of the State Survey collections of specimens and books. This arrangement is of much practical mutual value to the department and Survey. The University library is the depository for Federal Public Documents, so that the publications of the United States Geological Survey, Bureau of Mines, Reclamation Service, and Forestry Service are at hand. The first named consists of a great series of extremely high grade monographs, professional papers, bulletins, folios, and maps. To these, students and others may have free access. In the University series of bulletins are discussed many of the local geologic problems. In addition there are kept on the shelves all the latest and best books in the various branches of geology. The University is also the headquarters of the New Mexico

Geographic Society, which has for its chief purpose the improvement of the maps of the state, the development of its geographic resources, and the study of its trade relations with other states and countries. The maps, geographic writings, relics, etc., are freely accessible for reference and study, under proper care.

Primarily for Undergraduates.

1. **Physical geology.**—Physiographic, structural, and dynamic processes are considered in a general way, to be applied more specifically during Course 2 in the second semester. One-fifth of the work is devoted to studies of topographic and geologic maps and the handling, identification, and interpretation of illustrative minerals, rocks, fossils, models. Occasional field trips are required to areas reasonably accessible from the campus. Elementary chemistry is necessary for progress in this course, and physics and mineralogy are desirable. 5 hours, every fall term.

2. **Historical geology.**—The principles of Course 1, together with the elements of paleontology, are applied to the study of the origin and development of the earth, and to the evolution of life forms as governed by their migrations and adaptations. A large collection of accurately labeled fossils is available for laboratory work. An area near the campus is mapped topographically and its geologic problems discussed by the class. Acquaintance with modern geologic field instruments and methods is insisted upon. Prerequisite: 1. 5 hours, every spring term.

3. **Mineralogy, introductory.**—Crystallographic, physical, chemical, and descriptive mineralogy are given in lectures and recitations, and illustrated by specimens, models, and slides. Each student is equipped with a laboratory blowpipe and chemical set for work preliminary to determinative mineralogy. A limited number of unknowns are determined, as an introduction to Course 4. Chemistry 1-2 are required, but may be taken along with the course, if high school chemistry is presented for entrance. See also Course 55. 5 hours.

4. **Mineralogy, determinative.**—Three-fifths of the work is devoted to the determination of unknowns in the laboratory. After sufficient training in this means of identification is had, sight identification is practiced, followed by use of the spectroscope, gravity separations, and preparation and microscopic examination of opaque minerals by reflected light. Occurrence, origin, uses, conservation, and, where applicable, the principles of metallurgy of the minerals are considered in lectures and recitations. Prerequisites: Geology 3 and Chemistry 1-2. Chemistry 2 may accompany, if high school chemistry is presented for entrance. 5 hours.

5. **Physiography.**—This course is planned to supplement the usual courses in general geography and at the same time to lead to an understanding of the geologic control of surficial features and products. It includes a study of the earth's astronomical relations, atmosphere, rivers, oceans, landmasses. Regional comparisons are made of Eastern and Western physiographic features of the United States and the development of resources and industries, from a knowledge of geology, topography, soil, and climate. Extensive use is made of maps and models in the laboratory, and various short field trips are required. During these the student is

acquainted with the use of compass, clinometer, plane-table, alidade, rod, and methods of constructing topographic maps and sketches. This may be elected as a general cultural course. It is required of majors in geology. 3 or 5 hours.

6. **Climatology.**—Recent researches into prehistoric climatic variation are opening new fields in this subject. The modern advances in the methods of the United States Weather Bureau are likewise of extreme interest and importance. Unusual opportunities are presented in this region for the application of theory and its checking with practical observation. Given in the spring of odd numbered years. May be taken, with amplifications, by graduates. Prerequisite: 5, or equivalent. 2 hours.

7. **Commercial geography.**—This course is intended primarily for Freshmen in the Course in Commerce, but is open to other students interested in political, social, and especially environmental factors in the development of man. It forms a connection between the natural sciences on the one hand and the social sciences on the other. Descriptions and mnemonic exercises are reduced to a minimum, the end being to correlate facts and events so as to show concrete commercial, physical, historical, and social relations in the sense now coming to be recognized as constituting geography in the broader use of that term. 4 hours, every fall term.

8. **Geography of New Mexico.**—To those wishing to study the physical conditions of the Southwest in a broad manner, New Mexico offers a typical field; four of the important physiographic provinces of the United States border within this state. Early human adaptation and development in these environments are traced, as well as the modern geography of places, resources, trade and diplomatic relations. The permanent location of the headquarters of the New Mexico Geographic Society at the University adds interest to this work, for in that body is vested final authority upon all geographic questions concerning the state. Prerequisites: elementary geography alone might suffice, but either high school physical geography or Geology 5 or 7 is desirable. 3 hours. Given alternate years; spring of 1916-1917.

For Advanced Undergraduates and Graduates.*

51. **Economic geology.**—This may be otherwise described as applied geology. Occurrence, geographic and geologic distribution, origin, alterations, uses, and conservation of useful geologic products are investigated. Both non-metallic and metallic resources receive attention, particularly those common to the United States. The principles of mining and metallurgy are dealt with to some extent. Publications and maps of the Federal Geological Survey as well as those of state and foreign surveys are used freely. Illustrative specimens are handled, and practical field problems submitted to the class. Recourse is had occasionally to such experimental work as the examination of polished ore specimens by reflected light, and quantitative laboratory work is conducted. Elementary chemistry and mineralogy, as well as either Geology 1-2, or 102 are prerequisites. 3 or 5 hours. Alternate years, 1918-1919.

52. **Economic geology.**—Continuation of Course 51. This is presented with especial emphasis upon the geology of oil and gas. Course 58 gives

*101 and 102 are primarily for undergraduate engineers.

training in the field work that supplements this theoretic course. 5 hours. Alternate years, 1918-1919.

53. **Historical geology.**—The origin and development of the earth and its oceans and land masses receive detailed attention. Succession of life forms, significance of faunal and floral connections and separations, likenesses and unlikenesses, climatic conditions, structural features, probable land-and-sea boundaries form subjects for discussion. Reading researches are assigned. Certain phases of oceanography as well as continental conditions are involved. Prerequisites: 1-2, or 102. 3 or 5 hours. Fall term, alternate years, 1918-1919.

54. **Paleontology.**—Studies of those plant and animal forms useful in representing geologic history and biologic development. Attention is confined mainly to the extinct marine invertebrate animals. The influence of enemies, barriers, migration, and commingling are investigated. Development of species and recapitulation are considered through study of interior structure as well as of exterior form. Characteristic or index species receive especial attention. Prerequisites: 1-2, or 102. 5 hours. Spring term, alternate years, 1918-1919.

55. **Petrography.**—This work is intended especially to familiarize the student with applied crystallography through drills on crystal forms, crystal projection, and the use of the goniometer, both crystal models and natural crystals being used. Preliminary study of microscopic technique and the preparation of thin sections and polished surfaces of opaque minerals are taught in connection with light phenomena as seen in the petrographic microscope, and microchemical phenomena in the reflection microscope. It may be given with Course 4, in which case the latter course deals largely with blowpipe determinations. Prerequisites: physics and chemistry. 2 hours. See also Course 3. Fall term, alternate years, 1917-1918.

56. **Petrology.**—The ultimate aim of this course is training in rock classification as arrived at through petrographic, chemical, and field studies of the rock-forming minerals and their possible combinations. Igneous rocks are studied in particular, but the petrology of sediments and paragenesis of metalliferous minerals are also investigated. Thin sections, polished surfaces, cleavage fragments, gravity separations, and field evidences are made use of. Much emphasis is placed upon the manipulation of petrographic and reflection microscopes, and other laboratory devices. Prerequisites: 3-4, or 55, or 101, and, preferably, either 1 or 102. 5 hours. Spring term, alternate years, 1917-1918.

57. **Interpretation of maps.**—This is otherwise called indoor field geology. Topographic and geologic maps and folios are its bases. Training is had in detecting topographic and geologic form. Field operations are planned as if to meet the conditions implied by the maps. The making and criticism of contour and geologic maps and of geologic cross-sections is practiced. Prerequisites: 1-2, or 102. 3 hours. Alternate years, 1917-1918.

58. **Geologic field mapping.**—Modern geologic maps are no longer loosely tied in to stream lines, hill tops, and other changeable or mistakeable natural features, but are related to established benchmarks and corner stones of civil surveys. The close approximations of an instru-

mental survey are found fully as necessary in geological engineering observations as in other engineering work. In this course training is given in the use of the telescopic and sight alidade with stadia and plane-table, pacing, use of hand level, compass, and clinometer, contour running—both surface and sub-surface—and general geologic mapping problems. Plane trigonometry and either Geology 1 or 102 are prerequisites. 2 hours. Given every spring term.

101. **Engineering mineralogy.**—This is designed as a short course in determinative mineralogy and rock identification and classification, primarily for engineers and chemists. It consists mainly of laboratory work, but a brief treatment of crystallography is given. Microscopic observations of polished surfaces of minerals and metals is here offered. Prerequisites: Chemistry 1-2 and Physics 1-2. 5 hours. Given every year.

102. **Engineering geology.**—A course intended for those doing major work in Civil Engineering. It includes the elements of mineral and rock recognition, and the principles of weathering, erosion, sedimentation, and particularly structural geology, with brief attention to historical phases. Geologic field instruments are made use of, and reconnaissance methods and mapping practiced briefly. Prerequisites: Chemistry 1 and 2, Physics 1 and 2. 5 hours. Alternate years, 1918-1919.

103. **Local geology.**—This includes the broader geologic problems of the Southwest, and the geology of New Mexico as far as known. Particular attention is directed to conditions in the region of the University. Faulting, vulcanism, local water supply, soils, road metals, and other structural and economic features offer problems for solution here. 2 hours. Given any year.

104. **Geologic seminar.**—The departmental library is a depository for Federal Geological Survey and New Mexico Natural Resources Survey publications, and is kept up to date in state and many foreign geologic papers. An added incentive to reading and research with these facilities is seen in the fact that the geologic problems in New Mexico are as yet blocked out only in their broadest outlines, and await investigation by those acquainted with local conditions and the published results from this and related regions. Those desiring to emphasize local phases should precede or accompany this course with Course 103. For Juniors and Seniors who are adjudged prepared for the course. 2 to 5 hours. Given any year.

105. **Field work, absentia.**—Reference is here made to a clause in this catalogue, as follows:

"College credit is allowed for practical or applied field, laboratory, or office work, under the guidance of the professor in charge, on the basis of one hour's credit for each two calendar weeks occupied, provided that no more than 15 hours of such credits be allowed toward the graduation of any student."

Upon this basis the department offers credits to major students who have completed at least ten hours of theoretic geology before beginning the work presented for such credits in field geology. Not more than 5 hours' credit in this work may be accounted toward a major.

151-201. **Thesis.**—Obviously those who specialize in a growing subject can best become acquainted with their line of preference by focusing efforts and ideas upon a concrete problem. As implied in the last paragraph above, this state is well-nigh a virgin field for geologic research. 3 to 5 hours.

GERMAN LANGUAGE AND LITERATURE.

JOSEF FREDRIK NELSON, Professor.
JOHANNES WALTER GRUNER, Assistant.

Group requirements.—German Language and Literature falls under Group IB. German 1, 2, 51, and 52 may be used to fulfill the general college requirements for entrance. Students who enter with two units of German may enroll in Course 51, and students who enter with four units may enroll in course 101.

Major course.—To complete a major course in German Language and Literature, it is necessary for the student to earn at least 18 credit hours in this department above Courses 1 and 2, which may not be counted toward his major course. The remainder of the 32 credit hours shall be taken in additional foreign language, under the direction of the major professor.

Minor study.—A minor study in German Language and Literature consists of a minimum of 12 credit hours earned in this department, not counting Courses 1 and 2.

Oral practice courses.—German 1, 2, 51, and 52, earning 4 credit hours each, consist of 3 class hours during which reading and writing the language are taught, and 2 class hours during which a drill in pronunciation and speaking is conducted. German 101 and 102 are also oral practice courses.

Primarily for Undergraduates.

1. **Elementary German.**—Grammar, translation, and conversation, and memorizing simple German verse. Text: Bierwirth: Beginning German; and some selected prose. 5 class hours, 4 credit hours.

2. **Elementary German.**—Grammar completed. Reading about 200 pages of prose. Memorizing German poetry. 5 class hours, 4 credit hours.

51. **Second-year German.**—Prerequisite: one year of German in college or two years of German in high school. Prose composition, conversation, memorizing, and reading of Wilhelm Tell, and Minna von Barnhelm. 5 class hours, 4 credit hours.

52. **Second-year German.**—Die Journalisten; Zwischen Himmel und Erde; or Dippold: Scientific German Reader. Composition and conversation continued. 5 class hours, 4 credit hours.

101. **Schiller: life and works.**—Conducted in German. Life and times of Schiller discussed. Reading of several of his dramas, and one of Lessing's for comparison of technique. Original composition based on the reading. 3 hours. (Not given in 1917-1918.)

102. **Goethe: life and works.**—Conducted in German. Reading of Goetz, Iphigenie, Tasso, and selections from Dichtung and Wahrheit, etc. Original composition. 3 hours. (Not given in 1917-1918.)

151. **History of German literature.**—German literature of the Eighteenth century. Open to college students who have had at least two years of German. Discussion and reports based on the reading of typical classics. Kluge: Deutsche Nationalliteratur will furnish the guiding outline. 2 hours.

152. **History of German literature.**—German literature of the Nineteenth century. 2 hours.

GOVERNMENT AND SOCIOLOGY.

CLARENCE E. BONNETT, Professor.

Group requirements.—This department, with the departments of Economics and History, falls in Group II. To meet the requirement in this group, Economics 1 and Government 2 are recommended for six of the twelve hours. The other six hours may be elected from courses 4, 52, 53, 54, 56, 58, 71, 72, 73, 74, or 80, by permission of the department.

Major course.—For a major course in this department, Economics 1 and Government 2 are required as preliminary. Government 52 and 73, Economics 61, and History 73-74 are also required for a major course. Other work in related departments may be included.

Minor study.—A minor study consists of 12 hours in the department in addition to Economics 1 and Government 2, which are required as preliminary.

Primarily for Undergraduates.

2. **American government and politics.**—This course offers a thoroughgoing study of our governmental institutions as to origin, the methods used in making and administering laws, and the means of securing an expression of the will of the people. While constitutions are here studied intensively, the actual workings of the government through the party system are given as much attention, since the actual operation is as important as the principles upon which the government is based. 3 hours.

4. **Government of New Mexico.**—The course in the government of New Mexico is offered in connection with the course in the history of New Mexico, for students enrolled in the Course in Education. 2 hours.

52. **Sociology.**—As an introduction to the study of society, of groups and group relations, interests, associations, and conflicts, this course is designed to form a basis for the investigation of our most pressing social problems. Social conditions, problems, and proposed solutions will be considered briefly. 3 hours.

71. **Introduction to political science.**—In this course a study is made of the origin and the nature of the state, and the principles of government, as found in a brief survey of the governments of the leading nations. 3 hours.

72. **Governments of Europe.**—A comparison of governments in Europe is made in this course in order to determine the best methods of government and the underlying principles of each. 3 hours.

73. **Political parties and politics.**—This course investigates party structure, platforms, machinery, methods, functions, and abuses. Pro-

posed reforms for securing efficiency in government and insuring a clear expression of the will of the people will also be examined. 3 hours.

74. Municipal government.—Such problems of city government as taxation, regulation, or ownership of public utilities, health, etc., will be studied and comparisons made between American and European municipal governments. 3 hours.

80. Relations of government to property and industry.—A course designed primarily to show the varied relations of government to business and business administration, and to be of especial value to students who plan to assume duties of business administration. 3 hours.

For Advanced Undergraduates and Graduates.

53. Labor problems and conditions.—Under this head a study will be made of the conditions of labor, as to hours, wages, and the workshop; of the organizations of workmen and of employers, and their relations; and of the various problems that have grown out of the factory system. 3 hours.

54. The family.—The family as the primary group in society, the problems of society in their evolution, and the functions of the family in modern society, with some attention to the educational phases of these subjects, are here studied for the light they throw on sociological principles and problems. 3 hours.

56. Employers' associations.—A study of typical associations, their attitudes and activities, and the problems which they are trying to solve, is made in this course. It is intended to afford a knowledge of the most important, yet neglected, phases of industrial organization. 3 hours.

58. Immigration.—This course treats of immigration in both its good and its bad aspects, the problems that the immigrant has brought us, and his contributions to our institutions. 3 hours.

GREEK LANGUAGE AND LITERATURE.

LYNN BOAL MITCHELL, Professor.
GEORGE ADLAI FEATHER, Assistant.

Group requirements.—The requirement in Group IB for graduation may be met by the earning of sufficient credit hours in Courses 1-62.

Major course.—Major courses are not at present offered in this department.

Minor study.—A minor study in Greek shall consist of 12 credit hours, selected from Courses 21, 24, 51, 54, 61, and 62, and must include 61-62.

Rhodes scholarships.—The minimum preparation in Greek for the Rhodes scholarships is considered to be Courses 1, 2, 12, 61, and 62.

Miscellaneous.—Greek 91-94 may receive credit in the department of English Literature. The following courses are offered in the year 1917-1918: 1, 2, 12, 91, and possibly 94.

Primarily for Undergraduates.

1. Elementary Greek.—Grammar and composition. The common forms, idioms, and constructions, and the grammatical principles of Attic Greek prose. 5 hours.

2. **Elementary reading course.**—Xenophon: Anabasis, Books I-III. A review of Greek history from the close of the Peloponnesian war through the time of Alexander the Great. 3 hours.

12. **Greek grammar and Greek prose composition.**—Intended to accompany Course 2. 2 hours.

21. **Attic Greek prose.**—Selected orations of Lysias, and Plato: Apology of Socrates are translated. Assigned readings in reference works. Prerequisites: 1 and 2 or their equivalent. 3 hours.

24. **Epic Greek poetry.**—Selections from the Iliad of Homer are translated in class. A study of the epic as a species of literature and of early Greek civilization. The remainder of the Iliad and all of the Odyssey are read in translation. 3 hours.

51. **Greek history.**—Herodotus: Book I or VII, or selections. A study of the beginning and development of historical writing. Reading in English of other portions of Herodotus and other Greek historians. 3 hours.

54. **Greek drama.**—One play of Sophocles and two of Euripides are studied. The origin and development of the drama as a species of literature are treated. Assigned readings on correlated topics. 3 hours.

61-62. **Advanced Greek composition.**—2 hours.

73. **Greek architecture and art.**—Lectures, quizzes, assigned readings, and reports. No knowledge of Greek is required for admission to this course. 2 hours.

88. **Greek public and private life.**—A study of the civilization, customs, and institutions of the ancient Greeks; lectures, assigned readings, quizzes, and reports. No knowledge of Greek is required for admission to this course. 2 hours.

91. **Greek in English translation: the drama.**—The rise and development of the drama among the Greeks and Romans. Intensive study of several Greek plays and outside reading of other plays of Aeschylus, Sophocles, Euripides, Aristophanes, Plautus, and Seneca. Lectures, assigned readings, quizzes, and reports. No previous knowledge of Greek is required for admission to this course. 2 hours.

94. **Greek in English translation.**—A study is made of the contribution of the Greeks to other species of literature outside of the drama, especially in realms of epic and lyric poetry, history, philosophy, and the romance. 2 hours.

HISTORY.

ROSCOE R. HILL, Professor.

Group requirements.—Courses in History are accepted toward fulfillment of the requirement in Group II.

Major course.—Students taking a major course under the direction of the department of History will take a group of courses in the department amounting to not less than 20 credit hours, so arranged as to give a knowledge of the general field of history, with special reference to one chosen field. In addition, 12 credit hours, not including the Freshman requirement, must be taken in some other department which shall be de-

termined in consultation with the head of the department of History. History 1-2 will not be counted toward the fulfillment of the above requirement. All students taking a major course under this department will be required to take Courses 149-150 before graduation.

Minor study.—A minor in this department shall consist of 12 credit hours, subject to the approval of the head of the department, and exclusive of Courses 1-2.

Restrictions.—While it is advisable that courses continuing throughout the year be taken in both semesters, permission may be secured from the head of the department of History to pursue the work of either semester. Courses 1-2 or their equivalent in courses numbered less than 50 are prerequisite to all other courses in the department.

Primarily for Undergraduates.

1-2. **Modern European history.**—A study of the progress and development of the European nations from the Age of Discovery to the present time. Special attention will be given to historical method. 3 hours, each semester.

61-62. **English history.**—A general survey of the history of Greater Britain from the earliest times to the present, giving attention to the political, constitutional, economic, and social phases. 3 hours, each semester.

73-74. **United States history, 1789-1916.**—A study of the various phases of United States history from the formation of the Constitution to the present. 3 hours, each semester.

81. **Latin America: colonial period.**—An account of the European background of American history, the Age of Discovery, and the establishment and development of the Spanish and Portuguese colonial systems. Lectures and readings. 2 hours.

82. **Latin America: the republics.**—A study of the struggle for independence, the establishment and progress of the several Latin-American states, and their present political conditions. 2 hours.

85. **Latin America: geography and resources.**—The physical, and political geography of the several countries, the natural products, and the possibilities of development will be considered. 3 hours. (Not given in 1917-1918.)

86. **Latin America: trade and transportation.**—The trade relations of Latin America with the United States and Europe, the history of their development and possible expansion, the natural and artificial means of transportation, and the problems involved in their improvement will be studied. 3 hours. (Not given in 1917-1918.)

97-98. **Current history.**—A study of contemporary events and problems, based on periodicals, newspapers, and recent publications. Lectures and discussions. 2 hours, each semester.

For Advanced Undergraduates and Graduates.

131-132. **Spanish history.**—A consideration of the rise and development of the Spanish nation, with special reference to the relations with American history. This course is given entirely in Spanish, and students who enroll in it must have a speaking knowledge of this language. 2 hours, each semester. (Not given in 1917-1918.)

135. The Spaniards in the United States.—This course will deal with the work of Spanish colonization within the present area of the United States, with the exception of New Mexico. 2 hours. (Not given in 1917-1918.)

136. History of New Mexico.—This course will make a study of the native races of New Mexico, the establishment of Spanish rule, the colonial period, the Mexican régime, the acquisition by the United States, the struggle for statehood, and the progress of the state of New Mexico. 2 hours. (Not given in 1917-1918.)

141-142. Elements of international law.—2 hours, each semester. (Not given in 1917-1918.)

149-150. Bibliography, methods, and problems in history; a pro-seminar.—This course is designed to acquaint students with the various bibliographical aids and methods used in testing historical sources and in writing history. Attention will also be given to the subject of teaching history in the high schools. Problems will be assigned to each student for investigation. The general subject to be considered will vary from year to year. Required of all students doing major work in History and may be taken by others who have completed Courses 1-2 and six other credit hours in this department. 2 hours, each semester. (Not given in 1917-1918.)

182. Relations of Latin America and the United States.—3 hours. (Not given in 1917-1918.)

191. History of American diplomacy.—3 hours. (Not given in 1917-1918.)

HOME ECONOMICS.

FRANCES E. LATHROP, Associate Professor.
LOUIE CROFT BOYD, Assistant.
ETHEL LOUISE KIEKE, Assistant.

Major course.—For a major course in Home Economics, students must present credits in Courses 1, 2, 55, 56, 73, 74, 105, 126, 132, and 194, or 31 total credit hours.

Minor study.—For a minor in Home Economics, students must present at least 12 credit hours in the department.

Equipment.—The Home Economics laboratories are located in the Administration Building and are up to date in every respect. The cooking laboratory has an entire electrical equipment with appliances of latest model which are satisfactory in every way. It is unique in one respect, at least, for it is the only laboratory in the United States having the individual meter system. The work in chemistry, biology, physiology, and bacteriology is given in the regular departmental laboratories under the heads of the various departments. The general library is provided with an admirable list of reference books, all of which represent the latest authoritative work.

Primarily for Undergraduates.

1. Textiles and sewing.—Study of textiles and textile industries. Consideration of economic and hygienic aspect of textiles. Care and re-

pair of clothing. Study of the elements of handsewing and their application to practical problems. Laboratory work: two 2-hour periods; lecture: 1 hour. Required of all students in the department. Fee, $1.00. 3 hours. (KIEKE)

2. **Textiles and sewing.**—Continuation of 1. Study of dyeing, weaves, laundering, machine work, and principles underlying the same. Study of patterns, altering, interpreting, drafting, and testing. Use of commercial patterns. Laboratory work: two 2-hour periods; lecture: 1 hour. Prerequisite: 1. Required of all students in the department. Fee, $1.00. 3 hours. (KIEKE)

62. **Advanced sewing.**—Practical work in the making of undergarments, using patterns. Study of materials from the standpoint of suitability, cost, and durability. Laboratory work: two 2-hour periods; lecture: 1 hour. Prerequisites: 1 and 2. Fee, $1.00. 3 hours. (KIEKE)

115. **Dressmaking.**—Importance of artistic dress. Economics of dress. Designing and making of one wool dress or tailored skirt. Laboratory work: two 2-hour periods; lecture: 1 hour. Prerequisites: 1, 2, and 62. Fee, $1.00. 3 hours. (KIEKE)

55. **Foods.**—This course is intended as a preparation for later courses in foods. Emphasis is placed on manual dexterity, economy of labor through proper use of utensils, speed and quiet in carrying them out. Principles of cookery are studied and applied in the preparation of simple foods; cooking of cereals, vegetables, and eggs. Laboratory work: two 2-hour periods; class work: 1 hour. Fee $3.00. 3 hours. (LATHROP)

56. **Foods.**—Continuation of 55. Composition and characteristics of foodstuffs. Cooking of vegetables, meats, and breads. Study of milk and its products with the combinations of milk and eggs. Laboratory work: two 2-hour periods; class work: 1 hour. Prerequisites: 55, and Inorganic Chemistry. Fee, $5.00. 3 hours. (LATHROP)

105. **Advanced foods.**—Study of food preservation and Pure Food Laws. Extensive work with flour mixtures, including bread, cake, and pastry. Laboratory work: two 2-hour periods; lecture: 1 hour. Prerequisites: 55 and 56, and Bacteriology. Fee, $5.00. 3 hours. (LATHROP)

126. **Dietetics.**—Study of dietary standards; relation of food to health; quantitative requirements of the human body according to varying conditions of age, occupation, and health. Prerequisites: 55 and 56, and Bacteriology. 4 hours. (LATHROP)

181. **Serving of meals.**—Actual experience in selecting and purchasing foods to be prepared, keeping within a definite amount. Cooking and serving of daily meals for special occasions. This course is intended to sum up all the laboratory work of the preceding courses. Six hours attendance. Prerequisites: 105 and 126. Fee, $3.00. 3 hours. (LATHROP)

73. **Home nursing.**—This course includes the study of sick-room location, furnishing, and care; beds and bed-making; personal hygiene; care of patient; contagion and disinfection; simple emergencies and bandaging. 2 hours. (BOYD)

74. **Hygiene and sanitation.**—This course includes personal, domestic, and public hygiene and sanitation; causes and dissemination of diseases; prevention of infectious diseases. 2 hours. (BOYD)

132. **House management and sanitation.**—This course treats of care of the house; household accounts; ventilation; water supply, heating, and lighting. The home as a social center, and rules of conduct. Site and surroundings of the house. Drawing of plans and house furnishings. 4 hours. (LATHROP)

194. **Teachers' course and demonstration.**—Methods of presentation; the principles underlying the planning of curricula; the planning of domestic science laboratories and their equipment. The presentation by each student of the problems in cookery, the care of textiles, and sewing. Laboratory work: two 2-hour periods; class work: two 1-hour periods. Prerequisites: 1, 2, 55, and 56. 4 hours. (LATHROP)

LATIN LANGUAGE AND LITERATURE.

LYNN BOAL MITCHELL, Professor.
GEORGE ADLAI FEATHER, Assistant.

Group requirements.—The requirement in Group IB for graduation may be met by the earning of sufficient hours in Courses 1-62, 101-106.

Major course.—A major course in this department consists of 32 credit hours, and Courses 21, 22, 51, 52, and 31, 32 or 61, 62, must be included. A maximum of 12 of the 32 credit hours required for a major course may be taken in allied departments, such as Greek, Romance Languages, German, or Ancient History, etc., subject to the approval of the head of this department.

Minor study.—A minor study in Latin Language and Literature shall consist of 12 credit hours selected from Courses 21, 22, 51, 52, 101-106, but must include 31, 32 or 61, 62.

Restrictions, etc.—Courses 1-4 cover the ground usually covered in high schools in a four-year course and are intended for those students who come to the University with less Latin than is offered in high schools, and who are able to take these courses at a rapid rate. They are not accepted towards a major course or a minor study. Courses 137-138 may receive credit in Government and are recommended to students pursuing the Course Preparatory to Law. The following courses are offered in 1917-1918: 1, 2, 3, 4, 21, 22, 31, 32, 72, 101 or 105, 102 or 106.

Equipment.—The department is equipped with maps, charts, lantern slides, etc., and has made a start towards a museum of casts.

Primarily for Undergraduates.

1. **Beginning Latin.**—This course is for students who have not previously studied Latin. Grammar and composition. A beginning Latin book and a Latin reader will be studied. 5 hours.

2. **Caesar and Latin prose composition.**—A further study of grammar and syntax. Translation of detached sentences into Latin. Selections from Caesar to the amount of four books, or the equivalent in other authors. 5 hours.

3. **Cicero and composition.**—Six orations of Cicero, or two orations of Cicero and the Catiline of Sallust. Latin prose composition. Special attention is given to the art of translating into clear, vigorous English. A brief study of Roman political institutions. 5 hours.

4. **Vergil.**—Translation of six books of Vergil: Aeneid, or the equivalent. Special study of epic poetry as a species of literature. Outside reading of Homer's epics in English translation. Comparison of the religious beliefs held by the Ancients and the people of the Middle Ages, as portrayed by the Odyssey, Book XI; the Aeneid, Book VI; and the Divine Comedy of Dante. Topics for private investigation and report. 5 hours.

21. **Freshman Latin.**—Cicero: Essay on Old Age; and Selections from Livy. Review of grammar and syntax. Outside readings, especially topics on Roman history. Prerequisite: four units in Latin. 3 hours.

22. **Freshman Latin.**—Livy continued. Horace: Odes and Epodes. Outside readings, especially in the Latin lyric poets. 3 hours.

31-32. **Latin composition.**—Translations into Latin of detached sentences and connected narrative. Grammar and syntax. Intended to accompany 21-22. 1 or 2 hours.

51. **Sophomore Latin.**—Cicero: Essay on Friendship; and selections from Catullus, Propertius, and Tibullus. History of Roman literature through the Republic, and assigned readings. 3 hours.

52. **Sophomore Latin.**—Two comedies of Plautus and one of Terence are read. A study of the Roman drama. Outside reading in other dramas. 3 hours.

61-62. **Advanced Latin composition.**—1 or 2 hours.

71-72. **Roman antiquities and private life.**—A study of the remains of ancient Rome and Pompeii, the organization of society, education, the house, furniture, dress, food, amusements, sources of income, wedding and funeral ceremonies, etc. Lectures, in part illustrated; assigned readings and reports. Prerequisite: at least three years of high school Latin. 1 or 2 hours.

For Advanced Undergraduates and Graduates.

101. **Advanced Latin.**—Tacitus: Germania, and Agricola; and the Letters of Pliny the Younger. Outside readings bearing on the condition of the Roman people during the first century A. D. 3 hours.

102. **Advanced Latin.**—Silver Latin. Apuleius or Petronius; and Latin hymns. A study of the development of the Roman novel and romance. Assigned readings on kindred subjects. 3 hours.

105. **Advanced Latin.**—Selected readings from the philosophical writings of Cicero, Lucretius, and Seneca. Assigned readings and reports on the philosophical system of the Greeks and Romans. 3 hours.

106. **Advanced Latin.**—Selections from Lucilius, Horace, Persius, and Juvenal. A study is made of the development of Roman satire, and the works of the satirists will be read either in the original or in translation. 3 hours.

137-138. **Roman political institutions.**—A study of the Roman constitution, the contribution of the Romans to modern government and political science, and to the acquisition of civic rights. An investigation is made of the Roman methods of dealing with the initiative and referendum, the recall, the tariff, the government of cities, provinces, and protectorates, etc. Lectures, outside readings, and reports. Prerequisite: three years of high school Latin. 2 hours.

162. Teachers' course.—A study and criticism of various textbooks. Lectures on the scope and aim of Latin study, a teacher's equipment and reference library, and methods of teaching. Discussions of the difficulties which confront a teacher of Latin. A special study of the subjunctive mood and the essentials of classical philology. 2 hours.

231-232. Latin grammar.—Lectures on historical Latin grammar and comparative philology. Assigned readings in Lindsay, Sommer, Brugmann, and other authorities. A reading knowledge of German is required for admission to this course and a reading knowledge of French is desirable. 2 hours.

241-242. Master's thesis.—3-5 hours.

LIBRARY ECONOMY.

DELLA J. SISLER, Professor.

Primarily for Undergraduates.

1. Elementary course.—The purpose of this course is to teach students how to use the library and to give them a general idea of library work. Special emphasis will be given to the principles which should guide in the selection of books for a school library and to the relation of the public library to the public school. 2 hours.

2. Elementary course.—The purpose of this course is to teach students how to care for a library. The following subjects will be included in the course: how to order books and periodicals, trade bibliography, accessioning, classification, author numbers, shelf listing, simple cataloguing, mechanical preparation of books for the shelves, how to care for gifts and exchanges. 2 hours.

51-52. Advanced course.—Advanced work in cataloguing, classification, and reference. Other subjects included in the course are: care of serials, binding, charging systems, library legislation, organization, and administration. Prerequisite: 2. 2 hours, each semester.

MATHEMATICS.

WILL E. EDINGTON, Professor.

PAUL H. DAUS, Instructor.

Group requirements.—Students electing one year in Mathematics to satisfy the requirement of Group IIIA may fulfill this requirement by completing either Courses 1 and 12, or Courses 3 and 6.

Major course.—The student doing major work in Mathematics is expected to complete Courses 3, 6, 12, 21, 51, 52, 131, 141, 143, and 154, in order. In general, substitutions may be made only with other courses in Mathematics; Course 1 may be substituted for Courses 3 and 6 together. In some cases credit, not to exceed 5 hours, will be accepted from the courses in mechanics of the College of Engineering.

Minor study.—A student electing Mathematics as a minor will be required to complete Courses 51, 52, and 131.

Courses given.—During the past year all the courses named above have been or are being given, and it is intended that they shall be offered each

year, the odd-numbered courses during the first semester and the even-numbered courses during the second semester.

Primarily for Undergraduates.

1. **College algebra and plane trigonometry.**—Primarily for engineering students. A rapid review of elementary algebra is made, followed by a more careful treatment of simultaneous linear and quadratic equations, both analytically and graphically, the quadratic equation, binomial formula, logarithms, undetermined coefficients, partial fractions, and determinants. In plane trigonometry, especially, emphasis is put upon the solution of right and oblique triangles, together with the applications of trigonometry to practical problems of surveying. The rapid and accurate use of logarithms in the solution of these problems is insisted upon. 5 hours.

3. **College algebra.**—Analytical and graphical solution of simultaneous linear and quadratic equations, quadratic equations, imaginaries, ratio, proportion, variation progressions, binomial formula, mathematical induction, logarithms, permutations and combinations, limits, convergency of series, undetermined coefficients, partial fractions, determinants, and elementary theory of equations. 5 hours.

6. **Plane and spherical trigonometry.**—Trigonometric ratios, functions, equations, and identities, solution of right and oblique triangles by means of logarithms, both plane and spherical, and the applications of trigonometry to problems in surveying, navigation, and astronomy, advanced trigonometry and trigonometric series, hyperbolic functions. A knowledge of solid geometry is prerequisite to this course. 5 hours.

12. **Plane analytic geometry.**—Co-ordinates, the straight line, conic sections, transformation of co-ordinates, problems on loci, higher plane curves, and transcendental equations, empirical equations, and an introduction to analytic geometry of three dimensions. Prerequisite: 1, or 3 and 6. 5 hours.

21. **Modern geometry.**—Homothetic figures, advanced triangle and ratio theorems, concurrency and collinearity, vector geometry, inversion, cross-ratio, the quadrilateral and quadrangle, principle of duality, perspectivity, projection and section, and a general introduction to non-metric geometry. This course is intended to be especially helpful to teachers of high school mathematics. Text: Durell: Plane Geometry for Advanced Students, Part I; with lectures on additional topics. Prerequisites: 3 and 6, or 1. 5 hours.

36. **Descriptive geometry.**—Same as Practical Mechanics 12. Primarily for first year engineering students. 3 hours.

51-52. **Differential and integral calculus.**—The fundamental rules for differentiation and integration with application to such problems as are ordinarily considered in a first course in calculus. Prerequisite for all higher courses in mathematics, all courses in engineering, and physics above Course 110. Prerequisites: 1 and 12; or 3, 6, and 12. 5 hours, each semester.

101. **Limits and series.**—Limits of functions of a real variable, of a continuous variable, with applications to the calculus; convergence of infinite series, and expansions of elementary functions into infinite series.

and the determination of their intervals of convergence. Prerequisite: one year of calculus. 3 hours.

112. **Graphical analysis.**—Study of number by means of space. The purpose of the course is to enable the student to apply certain fundamental space properties of number to the study of functions and equations whereby their properties are discovered. Prerequisite: one year of calculus. 3 hours.

124. **History of mathematics.**—3 hours.

131. **Differential equations.**—Ordinary and partial differential equations. Text: Murray: Differential Equations. Prerequisite: one year of calculus. 3 or 5 hours. The 3-hour course is offered primarily for engineering students.

134. **Advanced calculus.**—A continuation of Course 52, with introduction to the theory of functions of the complex variable. 3 hours.

137. **Definite integrals.**—Principles of definite integrals, fundamental notion of function, its continuity, proper and improper definite integrals, Beta and Gamma functions, multiple and line integrals, computation of definite integrals by methods of approximation. Prerequisite: one year of calculus. 3 hours.

140. **Engineering mathematics.**—Primarily for students in Electrical Engineering. Hyperbolic functions, introduction to vector methods, functions of the complex variable applicable to engineering problems, theory of probability, method of least squares, studies in graphic papers, such as logarithmic and cosine, and practical applications to electrical problems. Prerequisites: Mathematics 131 and Physics 51 and 52. 5 hours.

141. **Determinants.**—Properties of determinants; applications to elementary algebra and theory of equations, determinants of special forms, application to calculus, linear transformations. If possible, this course should be taken simultaneously with 143. Prerequisites: 51 and 52. 1 or 2 hours.

143. **Theory of equations.**—Continuation of Course 3. General properties of equations, transformation of equations, solution of cubic and biquadratic, determinants, elimination, and elementary study of substitutions and groups preparatory to the Galois Theory. Upon request the course will be extended to 5 hours and an elementary study of the Galois Theory of Equations will be made. 3 hours.

For Advanced Undergraduates and Graduates.

154. **Solid analytic geometry.**—Lines and planes in space, quadric surfaces, and brief introduction to the theory of surfaces in general. Prerequisites: 21 and 131.

161. **Projective geometry.**—Prequisites: 21, 131, and 194. 5 hours.

174. **Theory of functions of the complex variable.**—Prerequisites: 131, 143, and 194. 5 hours.

185. **Fourier's Series and Bessel's Functions.**—3 hours.

194. **Advanced algebra.**—Based on Bocher: Introduction to Higher

Algebra; with lectures on additional topics. Prerequisites: 21 and 143. 3 hours.

200-201. **Seminar.**

206. **Theory of numbers.**—3 hours.

211. **Vector analysis.**—3 hours.

PHILOSOPHY.

DEAN A. WORCESTER, Professor.

Major course.—20 credit hours in the department together with 12 credit hours in the department of Psychology are required for a major course.

Minor study.—Any course in the department will be accepted towards a minor study.

Restrictions.—Except in special cases no course in the department is open to Freshmen. Only 81, 82, and either 83-84 or 121-122 will be given in 1917-1918.

Primarily for Undergraduates.

81. **Ethics.**—A study of the beginnings and of the development of moral conduct; an analysis and criticism of the leading conceptions of moral theory; and an attempt to make application of modern ethical theories to present day social and economic problems. 4 hours.

82. **Logic.**—The principles of deductive and of inductive reasoning. 4 hours.

For Advanced Undergraduates and Graduates.

83-84. **History of philosophy.**—A chronological study of the development of thought, with brief discussion of the leading thinkers and of the most prominent philosophical systems of each period. 3 hours, each semester.

121-122. **Introduction to philosophy.**—An introductory study of the various schools of philosophical thought. 3 hours, each semester.

PHYSICAL TRAINING.

RALPH F. HUTCHINSON, Director.

Graduation requirements.—All men and women whose rank is below that of a Sophomore, are required to take Courses 1-2 or 3-4. Three hours each week throughout the year are required. The required work includes a course on personal hygiene during the first semester, and consists of systematic exercises for the development of all parts of the body. A physical examination is made of each student, and physical measurements are taken in the fall and again in the spring. The training and exercise are under the immediate oversight and authority of the director, and are wholly with a view to the healthful development of the whole student body. All young men are required to be examined by the director upon registration and during the course, as often as the indications of their physical condition may require. The decision of the director will be either:

1. Advisory, indicating what course of hygiene and exercises will best sustain and improve the health of the students, or

2. Mandatory, requiring the students to pursue the course of hygiene and physical exercise necessary for the proper care of health, and the discharge of their duties as students.

Equipment.—Two well-equipped gymnasiums, containing locker rooms and shower baths, are open throughout the year for the use of the young men and women of the University. Women pursuing these courses are required to provide themselves with a gymnasium suit, consisting of a blouse waist and bloomers, with the regulation shoes. In addition to the class work, sports and pastimes, such as basketball, tennis, etc., are open to all women of the University.

Primarily for Undergraduates.

1. **Physical training for men.**—Course for Freshmen. Elementary exercises to correct slight body defects, as well as exercises to promote muscular tone, vigor, vitality, and endurance. Elementary work on the apparatus. 1½ hours.

2. **Physical training for men.**—Continuation of Course 1. Indian club drill and a course in elementary mat work. 1½ hours.

3. **Physical training for women.**—Course for Freshmen. Elementary exercises to correct slight body defects, as well as exercises to promote tone, vigor, vitality, and endurance. Marching and setting-up exercises. 1½ hours.

4. **Physical training for women.**—Continuation of Course 3. Indian club and dumb bell drills, and elementary work on the apparatus. 1½ hours.

Advanced courses.—The following courses are elective and are offered to those who have completed the prescribed Freshman course, and who wish to become teachers. One hour credit a semester is allowed to those who satisfy the requirements.

51. **Physical training for men.**—Lectures and recitations on personal hygiene. Instruction in the making of physical examinations, measurements, and strength tests for determining muscular efficiency. Opportunities to lead classes in various gymnastic drills are given the candidate. 1 hour.

52. **Physical training for men.**—The course includes the principles of coaching and training for the various outdoor and indoor sports. The candidate is required to participate to a certain extent in these sports. 1 hour.

53-54. **Physical training for women.**—Same as Courses 51-52. 1 hour, each semester.

PHYSICS.

JESSE L. BRENNEMAN, Professor.

Group requirements.—The department of Physics belongs to Group IIIA. Courses 51-52 satisfy the requirement in this group.

Major course.—The department does not offer a major in Physics at the present time.

Minor study.—A minor may be taken by passing 8 hours in the department, in addition to 51-52, with a grade of G or better.

Equipment.—The physics laboratory is located in Engineering Hall, and is well equipped for giving the laboratory work in both elementary and general physics. The equipment is especially complete in mechanics and electricity. Physics students have ready access to Electrical Engineering equipment for laboratory work. Direct and alternating current generators are available for supplying current for experiments at various voltages and currents up to eight horsepower capacity. Twenty-five electrical meters, eight galvanometers, five resistance boxes, in addition to the engineering rheostats, together with numerous other laboratory pieces, give good facilities for experimentation.

Primarily for Undergraduates.

1-2. **Elementary physics.**—A beginning course in physics, including mechanics, heat, electricity, sound, and light. Following Millikan and Gale: First Course in Physics. Class work with demonstrations: 4 hours; and laboratory: 2 hours. Half-year credit not given. Preparatory credit, 5 hours; college credit, 3 hours. Prerequisites: algebra and plane geometry. 5 hours, each semester.

51-52. **General physics.**—Mechanics, molecular physics, heat, electricity, wave motion, sound, light, and radio-activity. Recitations, demonstration, and laboratory work. Laboratory: 2 to 4 hours. Half-year credit not given. Texts: class work: Duff: A Textbook of Physics; laboratory: Millikan: Mechanics, Molecular Physics, and Heat; and Millikan and Mills: Electricity, Sound, and Light. Prerequisites: Physics 1 and 2 or their equivalent, and Mathematics 1 or its equivalent. 5 hours, each semester.

62. **Thermodynamics.**—Theory and principles underlying the operation of steam boilers and engines of various types, such as simple, compound, uni-flow, etc., and gas engines. Methods of analyzing the heat losses and determining their efficiencies. Operation of steam turbines, air compressors, and refrigerator plants. The course is given from the engineering standpoint. Text: Ennis: Applied Thermodynamics for Engineers. Physics 51 and 52, and Mathematics 51 and 52, must be taken before or simultaneously. 3 hours.

112. **Steam engines, boilers, and station auxiliaries.**—Intended to follow Course 62, laying more stress on the mechanical features and details of practice in construction and operation. Subjects treated are selected mainly from Gebhardt: Steam Power Plant Engineering. This course is open to civil engineers without Course 62. Prerequisite: 51. 3 hours.

For Advanced Undergraduates.

121. **Theoretical mechanics.**—Same as Civil Engineering 105. 5 hours.

122. **Hydraulics.**—Same as Civil Engineering 108. 3 hours.

PIANO.

E. STANLEY SEDER, Assistant Professor.

Prerequisites.—Requirements for entering Course 1 are the ability to play correctly, with proper style and phrasing, major scales in all keys in octaves, and Mozart: First Sonata; or Loeschorn: Op. 52; or the equivalent. Any deficiency must be made up before entering Course 1.

Primarily for Undergraduates.

1-2. Freshman course.—Exercises for independence of fingers; scales in thirds and sixths, parallel and contrary motion; arpeggios; chord playing; octaves begun. 12 studies from Loeschorn: Op. 66; Heller: Op. 46 and 47; Czerny: Op. 636 and 299; and 12 pieces by standard classic and modern composers. 2 hour lessons each week. 4 hours, each semester.

51-52. Sophomore course.—Octaves continued; scales in double thirds; special technical exercises suited to the student. 10 studies selected from Cramer: Études; Kullak: Octave School; Bach: Easy Preludes and Fugues; 10 sonatas and pieces by Beethoven, Mozart, Mendelssohn, Grieg, and others. 2 hour lessons each week. 4 hours, each semester.

101-102. Junior course.—Advanced technical work, greater velocity in scales and arpeggios. 8 studies from Clementi: Gradus ad Parnassum; Bach: Two and Three Part Inventions; Philipp: School of Double Notes. 8 sonatas and pieces by Beethoven, Weber, Henselt, Moszkowski, and modern composers. 2 hour lessons each week. 4 hours, each semester.

151-152. Senior course.—Special technical exercises. 6 studies from Bach: Well Tempered Clavichord; Chopin: Études; Philipp: School of Octaves. 6 sonatas and concert pieces by Beethoven, Schumann, Chopin, Liszt, MacDowell, and others. 2 hour lessons each week. 4 hours, each semester.

PRACTICAL MECHANICS.

ARNO K. LEUPOLD, Associate Professor.

Group requirements.—Courses in this department are open to all students. Courses 1 or 3, 5, 11, and 12 are required in the Courses in Chemical, Civil, Electrical, and Mechanical Engineering; and Courses 11 and 12 in the Course in Geological Engineering.

Equipment.—Shop equipment consists of: One double and six single woodworking benches with complete sets of tools. Five 12-inch wood turning lathes with full equipment. One circular saw table with groover head attachment. One 14-inch engine lathe with taper attachment, etc. One 6-inch engine lathe. One 13-inch engine lathe with milling and key-seating attachment. One 20-inch back-geared drill press. One 9-inch drill press. Two machine shop benches with sets of hand tools.

Drawing room equipment consists of 24 drawing desks and 3 cabinets for keeping work on file. Students furnish their own instruments, T-square, triangles, etc.

Primarily for Undergraduates.

1. **Elementary shop work.**—Bench and lathe work in wood. Practice in the interpretation of working drawings. 3 hours.

3. **Advanced wood work.**—A continuation of Course 1, including pattern making and the principles of cabinet work. Prerequisite: 1, or its equivalent. This course may be taken by students who have had the equivalent of Course 1 in their preparatory work. 3 hours.

5. **Lathe work in metals.**—Turning, boring, and thread cutting in cast iron, steel, and brass. 2 hours.

11. **General engineering drawing.**—Freehand lettering, mechanical lettering, and making of name plates and titles for mechanical drawings. Orthographic projection, working and detail drawings. Isometric, oblique, and perspective drawing. 3 hours.

12. **Descriptive geometry.**—The point, line, and plane; the properties of surfaces; intersections and developments. Practical problems. Prerequisites: solid geometry, college algebra, plane trigonometry. 3 hours. (LANPHIER.)

15. **Lettering.**—This course may be taken by any college student and consists of exercises in freehand and mechanical lettering. Methods of construction and spacing for mechanical lettering. Proper proportions for titles and name plates. Methods of securing prominence. 2 hours.

PSYCHOLOGY.

DEAN A. WORCESTER, Professor.

Group requirements.—Group IIIB: Courses 51, 52, 53, and 54 in this department meet the group requirements.

Major course.—At least 20 credit hours must be earned in this department to satisfy the requirements for a major course. Courses in the department of Philosophy, Physics 51 and 52, or Animal Biology 1, 2, 64, 104, or 120, will be accepted as allied subjects for a major course in this department.

Minor study.—Any course in the department will be accepted toward a minor study.

Restrictions.—Ordinarily, Courses 51 and 52 are prerequisite to all other courses in the department. Courses 51, 52, 53, 54, 56, 57 or 101, and 104 or 112 will be given in 1917-1918. 151-152 will be given if called for by qualified students.

Equipment.—The psychological laboratory is well equipped for instruction and training in experimental psychology, the apparatus having been carefully chosen with the aim of giving to the student a thorough knowledge of modern psychological methods, apparatus, and results. Instruments are provided for typical experiments in sensation, perception, association, reaction. There are also models of the brain, of the eye, and of the ear. Constant additions will be made to the standard equipment and many new instruments are being devised and constructed in the University shops.

Primarily for Undergraduates.

51-52. **General psychology.**—The aim of this course is to give a general understanding of the essential facts and of the fundamental laws of mind. 2 lectures, 1 recitation each week. 3 hours, each semester.

53. **Experimental psychology.**—This laboratory course seeks to give an introduction to modern psychological methods, and to familiarize the student with the use of apparatus. Typical experiments and demonstrations in the psychology of the senses, particular attention being given to the "personal equation" and its influence on results. 2 hours.

54. **Experimental psychology.**—Continuation of 53. Experiments in perception, association, reaction, etc.; mental and physical tests.

Courses 53 and 54 should be taken, if possible, in connection with Courses 51 and 52. 2 hours.

55. Experimental pedagogy.—This is a course in which may be tested the value of the various suggested applications of psychology to education, and in which new applications may be devised. Anthropometric measurements, physical and mental tests, statistical methods. 2 hours.

For Advanced Undergraduates and Graduates.

56. Educational psychology.—The applications of the principles of psychology to education, and the ways in which experimental psychology is modifying the curriculum and methods of instruction in the schools will be shown in this course. 3 hours.

57. Psychology of advertising and business efficiency.—Discussion of the principles of psychology as they are being used in the business world. 3 hours.

101. Social psychology.—A discussion of the influence of the individual mind upon the group, and of the influence of the group on the individual mind. 3 hours.

104. Comparative psychology.—A systematic study of the development of mind. If possible, this course will be given in collaboration with the department of Biology. 3 hours.

112. Advanced psychology.—An intensive study of selected problems. Prerequisites: 3 courses in the department. 3 hours.

151-152. Pathological psychology.—Readings and theses. A study of the disorders of sensation, memory, imagination, association, the emotions, and volition. Open to advanced students, upon consultation. 2 hours, each semester.

ROMANCE LANGUAGES AND LITERATURES.

JOSEF FREDRIK NELSON, Professor.

JOSEPHINE S. PARSONS, Professor.

Group requirements.—The department of Romance Languages and Literatures falls under Group IB. French 1, 2, 51, and 52, or Spanish 1, 2, 51, and 52 may be used to fulfill the general college requirements for entrance. Students who enter with two units of French or Spanish may enroll in French 51 or Spanish 51, and students who enter with four units may enroll in French 101, or Spanish 101, 111, or 141.

Major course.—To complete a major course in Romance Languages and Literatures, it is necessary for the student to earn at least 18 credit hours in one language and literature (French or Spanish) above Courses 1 and 2, which may not be counted toward his major course. The remainder of the 32 credit hours shall be taken in the other languages and literatures in the department (French, Italian, and Spanish) under the direction of the major professor.

Minor study.—A minor study in Romance Languages and Literatures consists of a minimum of 12 credit hours in one language and literature (French or Spanish), not counting Courses 1 and 2.

Oral practice courses.—French 1, 2, 51, and 52, and Spanish 1, 2, 51,

and 52, earning 4 credit hours each, consist of 3 class hours during which reading and writing the languages are taught, and 2 class hours during which a drill in pronunciation and speaking is conducted. Spanish 111 and 112 are also oral practice courses.

FRENCH.

Primarily for Undergraduates.

1. **Elementary French.**—Grammar: Fraser and Squair, Part I; and 150 pages of easy reading. 5 class hours, 4 credit hours. (NELSON.)

2. **Elementary French.**—Continuation of Course 1. Grammar: Fraser and Squair, Part II; and 200 pages of selected prose. 5 class hours, 4 credit hours. (NELSON.)

51-52. **Second-year French.**—Reading of selected modern prose with drill in syntax and composition. 5 class hours, 4 credit hours, each semester. (NELSON.)

101. **Third-year French.**—Advanced French prose composition. Translation into French of selected English texts. A study of the principal authors of the Classical Period. Representative texts from the works of Corneille, Racine, Moliere, Voltaire, Le Sage, La Fontaine, Boileau. 3 hours. (NELSON.) (Not given in 1917-1918.)

102. **Third-year French.**—Continuation of Course 101. Study of the writers of the Romantic School. Discussion of literary and colloquial forms and critical points in grammar. 3 hours. (NELSON.) (Not given in 1917-1918.)

151. **Fourth-year French.**—History of French literature, with readings from principal authors. From the Renaissance to the end of the Seventeenth Century. 2 hours. (NELSON.)

152. **Fourth-year French.**—History of French literature, with readings from principal authors. From the beginning of the Eighteenth Century to the present time. 2 hours. (NELSON.)

ITALIAN.

Primarily for Undergraduates.

1. **Elementary Italian.**—Grammar, translation, composition, and conversation. Textbooks: A. Arrib-Costa: Italian First Lessons; and Bowen: Italian Reader. 3 hours. (NELSON.) (Not given in 1917-1918.)

2. **Italian literature.**—The reading is chosen to suit the tastes and the ability of the class. Composition continued. 3 hours. (NELSON.) (Not given in 1917-1918.)

SPANISH.

Primarily for Undergraduates.

1. **Elementary Spanish.**—Introductory course; Hall: All-Spanish Method, Book I (8 weeks); Olmsted and Gordon: Grammar; Hill: Tales for Beginners. Writing from dictation and practice in speaking. 5 class hours, 4 credit hours. (PARSONS.)

2. **Elementary Spanish.**—Olmsted and Gordon: Grammar; and Hill: Tales for Beginners; completed. Carrión y Aza: Zaragueta; and Taboada: Cuentos Alegres, or similar text. 5 class hours, 4 credit hours. (PARSONS.)

51. **Second-year Spanish.**—Conversation. Composition: Loiseaux, or other standard text. Extensive reading: Spanish short stories, modern novels, Tamayo: Un Drama Nuevo; Palacio Valdes: La Hermana San Sulpicio; or works of similar character. Prerequisites: 1 and 2 or two years of high school Spanish. 5 class hours, 4 credit hours. (PARSONS.)

52. **Second-year Spanish.**—Continuation of 51. Plays by Echegaray, Moratin, etc. 5 class hours, 4 credit hours. (PARSONS.)

101. **Spanish drama of the Seventeenth Century.**—Lope de Vega: La moza de cántaro, and La estrella de Sevilla; Tirso de Molina: La prudencia en la mujer, and El burlador de Sevilla; Alarcón: La verdad sospechosa; Moreto: El desdén con el desdén; Calderon: La vida es sueño, and El mágico prodigioso. In addition extracts will be assigned from standard histories of Spanish literature. Prerequisites: 1, 2, 51, and 52, or their equivalent. 2 hours. (NELSON.) (Not given in 1917-1918.)

102. **Spanish literature of the Nineteenth Century.**—Study of the important dramas, novels, and lyric poetry of recent Spanish writers. Zorilla: Don Juan Tenorio; Ayala: Consuelo; Galdos: Electra. Outside reading in standard histories of Spanish literature. Two Spanish novels to be read outside. Prerequisites: 1, 2, 51, and 52, or their equivalent. 2 hours. (NELSON.) (Not given in 1917-1918.)

111. **Third-year Spanish.**—Conversation course. Class work conducted entirely in Spanish. Grammar reviews, strongly stressing Spanish structure. Sight translation of English to Spanish, and of Spanish to other Spanish, different from that of the text or assigned reading matter. 3 hours. (PARSONS.)

112. **Third-year Spanish.**—Continuation of 111. Outside reading: works of modern Spanish novelists, chiefly selected from the University library, which contains a goodly number. Reports written in Spanish are required. This course is designed to give fluency in the spoken language. It is especially recommended to qualified students who expect to reside in Spanish-speaking countries or communities. 3 hours. (PARSONS.)

141-142. **Commercial Spanish.**—Reading of scientific and technical Spanish: Willcox. Letter writing: Harrison: Spanish correspondence. 3 hours, each semester. (NELSON.)

151. **Spanish ballad poetry.**—Origin and development of the Spanish epic from the Middle Ages to the present day. Morley: Spanish Ballads; Wolf and Hofman: Primavera y flor de romances. Lectures. I hour. (NELSON.) (Not given in 1917-1918.)

152. **History of Spanish literature.**—For advanced students, a survey of Spanish literature from the earliest times to the present day will be arranged, with wide reading of texts and of criticisms bearing upon them. 1 hour. (NELSON.) (Not given in 1917-1918.)

131-132. **Spanish history.**—(See History). 2 hours, each semester.

THEORY OF MUSIC.

E. STANLEY SEDER, Assistant Professor.

Primarily for Undergraduates.

1-2. **Harmony.**—Study of scales, intervals, triads, close and open harmony, dominant ninth and diminished seventh chords and inversions.

Harmonization of melodies and basses. Chadwick: Harmony. 3 hours, each semester.

41-42. **Public school music.**—Study of the child voice; methods of drilling grade children; study of rote songs of various grades of difficulty. Lectures and demonstrations. 1 hour, each semester.

51-52. **Advanced harmony.**—Study of modulations, irregular resolutions, altered chords, suspensions, passing tones, organ point. Chadwick: Harmony, for reference; Prout: Harmony; and Hull: Modern Harmony. Prerequisite: 2. 2 hours, each semester.

61-62. **History of music.**—Comprehensive study of the evolution of music from the ancient to modern times, with special attention given the periods of Palestrina, Bach, Mozart, Beethoven, and the Romantic composers. Hamilton: Outlines of Music History. 2 hours, each semester.

121-122. **Counterpoint.**—Different species of single counterpoint in two, three, four, and five or more parts. Double counterpoint at the octave, twelfth, and fifteenth. Modern counterpoint. Bridge: Counterpoint. Prerequisite: 2. 2 hours, each semester.

125-126. **Composition.**—Simple song and dance forms. Theme with variations, analysis of classical models, and original work. Stainer: Composition, for reference; Stanford: Musical Composition. Prerequisite: 52. 1 hour, each semester.

141-142. **Normal class.**—Methods of arranging and presenting courses in theoretical and practical music. Lectures and demonstrations. 1 hour, each semester.

171. **Canon and fugue.**—Various forms of canon and their use; fugue in two, three, and four parts; analysis of Bach fugues and original work. Bridge: Double Counterpoint and Canon; Higgs: Fugue. Prerequisite: 122. 1 hour.

175-176. **Advanced composition.**—Sonata and rondo forms; analysis of classical works, and original works in larger forms. Prerequisites: 122 and 126. 1 hour, each semester.

182. **Instrumentation.**—Nature and treatment of the orchestral instruments; analysis of classical and modern scores; original work in orchestration. Prout: Instrumentation. Prerequisite: 126. 1 hour.

191-192. **Musical analysis.**—Analysis, from standpoints of form and content, of Bach fugues, Beethoven sonatas and symphonies, compositions of Schumann, Schubert, Chopin, Brahms, Tschaikowsky, and others. 1 hour, each semester.

VIOLIN.

E. LEROY YOTT, Instructor.

Primarily for Undergraduates.

1-2. **Freshman course.**—Schools by Hohmann, De Beriot, and Ries; studies and exercises by Mazas, Kayser, Dancla, Schradieck, etc.; compositions by Dancla, De Beriot, Sitt, etc. 4 hours, each semester.

51-52. **Sophomore course.**—Exercises by Schradieck and Sevcik; études by Mazas, Libon, and Kreutzer; double stop studies by Fischel. Selected compositions by standard composers. 4 hours, each semester.

101-102. **Junior course.**—Exercises by Sevcik; études by Kreutzer, Fiorillo, and Rode; duets by Viotti and De Beriot; concertos by Rode, Viotti, Kreutzer, and De Beriot; sonatas by Tartini and Vivaldi. 4 hours, each semester.

151-152. **Senior course.**—Études by Gavinies and Wieniawski; caprices by Paganini; sonatas by Bach; concertos and miscellaneous compositions by Mendelssohn, Bruch, Vieuxtemps, Wieniawski, Dvorak, Beethoven, and others. 4 hours, each semester.

VOICE.

ORRIN L. PADEL, Instructor.

Primarily for Undergraduates.

1. **Freshman course.**—Tone production; exercises with lectures on tone placing, vowel formation, and breathing. Elements of the theory of music. Sieber: Elementary Vocalises; Brennan: Words in Singing; Russel: How to Read Modern Music. 2 hour lessons each week. 4 hours.

2. **Freshman course.**—Continuation of 1 with special attention to ear training and sight reading. 4 hours.

51-52. **Sophomore course.**—Advanced work in tone-sustaining. Marzo: Art of Vocalization, Vol. I. Easy songs, German lieder and duets. Ensemble work. 2 hour lessons each week. 4 hours, each semester.

101-102. **Junior course.**—Advanced work in breath control. Marzo: Art of Vocalization, Vol. II and III. Concert songs, classic opera and oratorio; ensemble work. 2 hour lessons each week. 4 hours, each semester.

151-152. **Senior course.**—Special attention given to interpretation. Marchesi: Twenty-four Vocalises for perfecting the mechanism of the voice. Modern songs, oratorio, and modern opera. 2 hour lessons each week. 4 hours, each semester.

DEGREES GRANTED BY THE UNIVERSITY.

FIRST DEGREES.

BACHELOR OF ARTS—COLLEGE OF ARTS, PHILOSOPHY, AND SCIENCES.

BACHELOR OF ARTS IN COMMERCE—COURSE IN COMMERCE.

BACHELOR OF ARTS—COURSE IN LATIN-AMERICAN AFFAIRS.

BACHELOR OF FINE ARTS—COLLEGE OF FINE ARTS.

BACHELOR OF MUSIC—COURSE IN PIANO.

BACHELOR OF MUSIC—COURSE IN VIOLIN.

BACHELOR OF MUSIC—COURSE IN VOICE.

BACHELOR OF PEDAGOGY—FOUR-YEAR COURSE IN EDUCATION.

BACHELOR OF SCIENCE—COLLEGE OF ENGINEERING.

BACHELOR OF SCIENCE IN CHEMICAL ENGINEERING—COURSE IN CHEMICAL ENGINEERING.

BACHELOR OF SCIENCE IN CIVIL ENGINEERING—COURSE IN CIVIL ENGINEERING.

BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING—COURSE IN ELECTRICAL ENGINEERING.

BACHELOR OF SCIENCE IN GEOLOGICAL ENGINEERING—COURSE IN GEOLOGICAL ENGINEERING.

BACHELOR OF SCIENCE IN HOME ECONOMICS—COURSE IN HOME ECONOMICS.

SECOND DEGREE.

MASTER OF ARTS—GRADUATE SCHOOL OF ARTS, PHILOSOPHY, AND SCIENCES.

COLLEGE OF ARTS, PHILOSOPHY, AND SCIENCES.

The College of Arts, Philosophy, and Sciences aims to provide a liberal as well as a thorough education. It offers courses of both cultural and practical nature in various departments, including animal biology, botany, chemistry, economics, English language and rhetoric, English literature, geology, German language and literature, government, Greek language and literature, history, home economics, Latin language and literature, library economy, mathematics, philosophy, physical training, physics, psychology, and Romance languages and literature. It gives opportunity also for special work in the Course in Commerce, the Course in Latin-American Affairs, the Course Preparatory to Law, and the Course Preparatory to Medicine. In addition, it accepts a certain amount of work from the College of Fine Arts, the Courses in Education, and the College of Engineering.

GRADUATION REQUIREMENTS.

A little more than one-third of the curriculum is prescribed for the program of the first two years with the intention that every student shall lay a sufficiently broad foundation in English, other languages, the sciences, and history, government, and economics. During the last two years he devotes the greater part of his time to his major course and chooses his electives under the advice and approval of his major professor. The curriculum for the first two years is arranged in groups and a specified amount of work must be taken in each group.

GROUP I.

A. English.
B. Foreign Language.

GROUP II.

History.
Government and Economics.

GROUP III.

A. Chemistry.
Mathematics.
Physics.
B. Biology.
Geology.
Psychology.

REQUIREMENT IN GROUP IA.

English 1 and 2 must be taken in the first year. In the second year the student elects two three-hour courses from those courses open to him.

REQUIREMENT IN GROUP IB.

Courses normally earning 14 credit hours must be taken in languages other than English in the first two years. But for students who enter with six units in languages other than English, the requirement may be reduced to 8 credit hours, and for those who enter with five units in languages other than English the requirement may be reduced to 11 credit hours. In high school and the first two years of college the student must have credit in at least two languages other than English and of at least one of these he must have a practical working knowledge. The reductions mentioned above can be obtained only after a year of residence at the University and on the written recommendation of the head of the language department most concerned.

REQUIREMENT IN GROUP II.

Four three-hour courses are required in this group in the first two years.

REQUIREMENT IN GROUP III.

One year-course in IIIA and one year-course in IIIB must be taken in the first two years. A student is excused from requirement IIIA or IIIB if he offers two additional units in laboratory science or one additional laboratory science and one additional unit in Mathematics. If at least two of the additional units lie in the field of IIIA, the exemption is secured from IIIA. If at least two of the additional units lie in the field of IIIB, the exemption is secured from IIIB. But in no case may a student be exempted from both. In order to secure exemption from either requirement A or B it is necessary for the student to present his notebooks and other evi-

dence of completed work for the approval of the head of the department in which such exemption is sought. The above exemptions do not apply in so far as they involve courses which are prerequisite to other courses in which a student desires to enroll after finishing the Freshman or Sophomore year.

PRESCRIBED FOR FRESHMEN.

Physical Training 1 and 2 or 3 and 4, 3 times a week throughout the year.

Group IA.—English 1 and 2, 3 times a week throughout the year.

Group IB.—Foreign Language, one course, 3-5 times a week throughout the year.

Group II.—History 1 and 2 or Economics 1 and Government 2, 3 times a week throughout the year.

Group III.—One course in IIIA or IIIB, 3-5 times a week throughout the year.

Elective.—One course in each semester so selected that the maximum schedule of 17 class hours or the equivalent shall not be exceeded.

COURSES OPEN TO FRESHMEN.

English 1 and 2, 3 times a week.

French 1 and 2, or 51 and 52, 3 recitations and 2 class hours of practice a week. (Students who enter with the equivalent of French 1 and 2 take 51 and 52.)

German 1 and 2, or 51 and 52, 3 recitations and 2 class hours of practice a week. (Students who enter with the equivalent of German 1 and 2 take 51 and 52.)

Greek 1 and 2, or 21 and 24, 5 or 3 times a week respectively. (Students who enter with the equivalent of Greek 1 and 2 take 21 and 24.)

Latin, 3, 4 or 5 times a week. (The course open depends upon the amount of work completed before entrance.)

Spanish 1 and 2, or 51 and 52, 3 recitations and 2 class hours of practice a week. (Students who have had the equivalent of Spanish 1 and 2 take Spanish 51 and 52.)

History 1 and 2, 3 times a week.

Economics 1 and Government 2, 3 times a week.

Chemistry 1 and 2, 4 times a week.

Mathematics 1, 3, or 21, and 6 or 12, 3 or 5 times a week.

Animal Biology 1 and 2, and Botany 14, 4 times a week.

Geology 1 and 2, 5 times a week. Geology 3 and 4, 3 and 5 times a week respectively.

Piano 1 and 2, 1 or 2 lessons a week.

Theory of Music 1 and 2, 3 times a week.

Violin 1 and 2, 1 or 2 lessons a week.

Voice 1 and 2, 1 or 2 lessons a week.

Education 1 and 2, 3 times a week. Education 15 and 18, 1 hour a week.

Library Economy 1 and 2, 2 times a week.

Practical Mechanics 1 and 2, 3 and 2 times a week respectively.

Home Economics 1 and 2, 2 times a week.

PRESCRIBED FOR SOPHOMORES.

Group IA.—A three-hour course each semester must be chosen from such courses in English Language and English Literature as are open to those students who have completed English 1 and 2.

Group IB.—The student must complete the requirement in this group. If he shall have completed the requirement by the end of the first year or by the end of the first semester of the second year, he will be permitted to substitute a free elective.

Group II.—The student must complete the requirement in this group. If he shall have completed the requirement by the end of the first year, or by the end of the first semester of the second year, he will be permitted to substitute a free elective.

Group III.—The student must complete the requirement in this group. If he shall have completed the requirement by the end of the first year, or by the end of the first semester of the second year, he will be permitted to substitute a free elective.

Electives.—In all cases the student is permitted to elect courses in sufficient number to make a full schedule.

PRESCRIBED FOR JUNIORS AND SENIORS.

In the Junior and Senior years each student must meet the requirements of a major course. The remainder of his schedule is elective.

REQUIREMENTS IN MAJOR COURSE AND MINOR STUDY.

When registering for the Junior year each student shall select a major course and his course of study after this time shall meet the approval of the head of the department in which the greater part of the major course lies. He shall complete in this major course at least 32 credit hours. This major course will ordinarily consist of 20 credit hours in one department and 12 credit hours in an allied department or allied departments, but the amount of work to be taken in different departments shall lie in the discretion of the major professor.

The student may change his major course only by permission of the faculty, and in so doing he must complete in his newly selected major course the required number of credit hours, no matter how many credit hours he may have earned in his previously declared major course.

At least 5 credit hours in the major course must be earned in this University. No advanced standing in the major course is granted to any student presenting credits from another institution until after he has been in residence at this University for at least one semester and then only after the completion of 5 credit hours in the major course at this University.

If in addition to his major course a student completes a

minor study of 12 credit hours, he will receive recognition for it in his diploma.

THESIS.

Candidates for the B. A. degree may be required to prepare a thesis in the Senior year upon some subject chosen by the head of the department in which the major course lies. This thesis shall be in the department in which the major course lies, prepared under the supervision of some professor, and must be accepted three weeks before the Commencement Day on which the candidate expects to receive the degree. The requirements as to typographical form may be obtained upon application to the Librarian.

RESTRICTIONS IN ELECTIVES.

Not more than 50 credit hours from courses open to Freshmen will be accepted towards the degree of Bachelor of Arts without reduction in the amount of credit usually given for such courses.

Not more than 20 credit hours in Theory of Music and Instrumental or Vocal Music will be accepted as electives towards the degree of Bachelor of Arts.

From the Courses in Education only courses in the Theory and History of Education will be accepted towards the degree of Bachelor of Arts.

DEGREE.

Upon recommendation of the President and Faculty, the degree of Bachelor of Arts is conferred upon those candidates who have completed at this institution not less than the last year of a four years' course in accordance with the requirements and regulations of the University.

PROFESSIONAL HIGH SCHOOL TEACHER'S CERTIFICATE.

Negotiations are on foot whereby graduates of this University will be awarded a professional high school teacher's certificate when certain requirements are met. These requirements are not yet formulated but they will probably be as follows:

The inclusion in the four years' course of 20 credit hours in the group of Psychology and Education: to-wit,

Psychology, not less than 8 credit hours.

History of Education, not less than 5 credit hours.

High School Methods of Teaching and Classroom Management, not less than 4 credit hours.

Elective in Psychology or Education, or both, to total 20 credit hours, including the preceding.

The requirements in Physiology, United States History and Civics and the History and Civics of New Mexico, to which all applicants for all grades of certificates are held will have to be met by applicants for the professional high school certificate. If these subjects have not been offered for entrance they must be taken before graduation.

Graduates of the University, who include in their course the above prescribed subjects or whatever may be determined upon by the State Department of Education, will receive a certificate showing that they have completed this work. Upon the presentation of this certificate to the State Department of Education, a professional certificate will be issued permitting the holder thereof to teach in high schools in New Mexico for a period of three years. Upon the expiration of this time and upon the presentation of evidence of successful teaching, this certificate will be renewed on terms which are yet to be formulated by the State Department of Education.

COURSE IN COMMERCE

The growing complexity of modern business and industry has brought into prominence an increasing number of perplexing problems. The small retail business, as well as the giant corporation, has its share of problems to meet. With the more progressive businesses, efficiency and service have become the watchwords.

In 1915, over 1 per cent. of all business undertakings failed, and of these failures, over 30 per cent. were due to incompetence and lack of experience. The number of failures in the past 35 years, is equal to 23 per cent. of the total number of concerns now engaged in business. These figures include only those failures where creditors lost, and not those where the business was simply unsuccessful, a large number in themselves. It is currently reported that 95 per cent. of all businesses in the United States are unsuccessful. Chairman Hurley of the Federal Trade Commission reports that of 260,000 corporations engaged in the manufacturing and mercantile business in the United States, 100,000 made no net gain whatever. It is estimated that only 10 per cent. of our manufacturers and

merchants know the actual cost of the manufacture and sale of their products, 40 per cent. estimate their costs, while 50 per cent. do not even guess, but make their prices arbitrarily. The confusion of capital and income accounts is generally prevalent.

In view of these facts, one can readily see that the young man just entering business must learn far more of efficiency than the old-time business man ever knew. The young man of today makes many mistakes in business through thinking that all he needs to have is simply one phase of business training, usually salesmanship. But he must know and use a system of accounting in order to sell at the best price, and above all, he must have a knowledge of economic principles in order to foretell the probable outcome of the many changes in industry and commerce.

Furthermore, the ambitious young man cannot afford to ignore the governmental side of business, for the relations between business and government are rapidly increasing. The growth of governmental commissions, inspectors, laws regulating food, drugs, and even the securities of a business, makes a study of the underlying principles of these matters necessary. Service has been voluntarily given by many, but the government is now forcing others to render it. The wiser business man leads and accordingly reaps the greater reward with the fewer risks. For to reduce the risks of business is ultimately to make the greater gains.

The Course in Commerce has been organized to meet this growing need. It aims to give a training in the basic principles of business. It offers an opportunity for business specialization, but only after the fundamentals have been mastered.

GRADUATION REQUIREMENTS.

Upon completing the required and elective courses to the number given below, the student will have conferred upon him the degree of Bachelor of Arts in Commerce. The following work is required:

English Composition, Business Writing, and Public Speaking	10 hours
American History	6 hours
Modern Language—all in one, Spanish, German, or French	16 hours
Commercial Geography	5 hours
Economics and Commerce	60 hours
Government and Sociology	18 hours
Elective	29 hours
Total required hours	144

Curriculum.

Freshman Year.

First Semester

Economics 1	Economic History of the U. S.	3 hours
Economics 61	Principles of Economics	5 hours
Modern Language	(Spanish, German, or French)	4 hours
English 1	English Composition	3 hours
Economics 5	Accounting	3 hours

Second Semester

Government 2	American Government	3 hours
Geology 7b	Commercial Geography	5 hours
Modern Language	(Same one as above)	4 hours
English 2	English Composition	3 hours
Economics 6	Accounting	3 hours

Sophomore Year.

First Semester

Government 71	Introduction to Political Science	3 hours
Economics 65	Salesmanship	3 hours
History 73	American History	3 hours
Modern Language	(Second year of the one chosen above)	4 hours
English 63	Business Writing	3 hours
Elective		2 hours

Second Semester

Government 80	Relation of Business to Government	3 hours
Economics 66	Salesmanship	3 hours
History 73	American History	3 hours
Modern Language	(Same one as above)	4 hours
English 57	Public Speaking	2 hours
Government 52	Sociology	3 hours

Junior Year.

First Semester

Economics 111	Money, Credit, and Banking	3 hours
Economics 115	Advertising	3 hours
Economics 101	Statistics	3 hours
Economics 117	Business Law	3 hours
Government 53	Labor Problems	3 hours
Economics 121	Railway Economics	3 hours

Second Semester

Economics 112	Money, Credit, and Banking	3 hours
Economics 116	Advertising	3 hours
Economics 64	Current Economic Problems	3 hours
Economics 118	Business Law	3 hours
Government 56	Employers' Associations	3 hours
Economics 122	Railway Economics	3 hours

Senior Year.

For the fourth year the student will choose electives from the following list, in consultation with the Professor of Economics and Government, and with a due regard to the special subjects in which he wishes to specialize:

Advertising, Salesmanship, Business Law, Insurance, Corporation Finance, Industrial Combinations, Commercial Organizations in Foreign Trade, Geography and Resources of South America, Trade and Transportation of South America, International Law, History of American Diplomacy, Relations of United States to Latin America, Immigration, English History, English Composition, Debating, Public Finance, Banking, History of Economics, Governments of Europe, Rural Economics, Political Parties, General Psychology, Psychology of Advertising, and Social Psychology.

COURSE IN LATIN-AMERICAN AFFAIRS.

In view of the growing interest in Latin America, the following group of courses is suggested for students who desire to secure a knowledge of the Latin-American countries and peoples, their language and literature, their history and geography, and their natural resources and economic conditions.

Curriculum.

Freshman Year.

First Semester		Credits
English 1	Composition and Rhetoric	3
Spanish 51	Second Year Spanish	4
History 1	Modern Europe	3
Economics 1	Economic History of the United States	3
Geology 7	Economic and Commercial Geography	5
Second Semester		
English 2	Composition and Rhetoric	3
Spanish 52	Second Year Spanish	4
History 2	Modern Europe	3
Government 2	American Government	3
Science or Mathematics (elective)		4

Sophomore Year.

First Semester		
English 41	Introduction to English Literature	3
Economics 61	Principles of Economics	3
Spanish 111	Third-Year Spanish	3
History 81	Latin America: Colonies	2
History 85	Latin America: Geography and Resources	2

Electives		Credits
History 73	American History	3
Science or Mathematics	4 or	3
Second Semester		
English 57	Public Speaking	3
Government 52	Sociology	3
Spanish 112	Third-Year Spanish	3
History 82	Latin America: Republics	2
History 86	Latin America: Trade and Transportation	2
Electives		
History 74	American History	3
Science or Mathematics	4 or	3

Junior Year.

First Semester		
English 63	Business Writing	3
Spanish 141	Business Spanish	3
History 141	Elements of International Law	2
Psychology 51	General Psychology	3
Economics 111	Money, Credit, and Banking	3
Electives:		
History 135	Spaniards in the United States	2
	Science	3
	Business Law	2
	Second Modern Language	4
Second Semester		
	Advertising	3
Spanish 142	Business Spanish	3
History 142	Elements of International Law	2
	Salesmanship	3
Economics	Finance	3
Electives:		
	Science	3
	Business Law	2
	Second Modern Language	4

Senior Year.

First Semester		
History 191	History of American Diplomacy	3
History 109	Europe Since 1850	3
Economics	Foreign and Domestic Exchange	3
Electives:		
	Second Modern Language, 2nd year	4
	Science	3
	Economics or Government	3
	History 2 or	3
	Commercial Organization in Foreign Trade	3

Second Semester		Credits
History 182	Relations of the United States and Latin America	3
History 110	Europe Since 1850	3
Economics	Foreign Credit, Banking and Finance, with special reference to Latin America	3
Electives:		
	Second Modern Language, 2nd year	4
	Science	3
	Economics or Government	3
	History	2 or 3
Economics 62	Business Organization and Management	3

COURSE PREPARATORY TO LAW.

All law schools of high rank are now requiring a certain amount of work in the College of Arts, Philosophy, and Sciences before admission to the study of law. The student who plans to take up the study of law should first gain a broad foundation for his later work, and should take at least two years of English, History, Economics, Government and Sociology, the languages and the sciences. The exact curriculum will depend on the requirements of the law school of which the student plans to become a member, but he should, in general, pursue the regular required course for the Freshman and Sophomore years, choosing his electives under the direction of the Professor of Economics and Government.

COURSE PREPARATORY TO MEDICINE

All reputable medical schools are now requiring for entrance at least two years of college work in which special emphasis is placed on the laboratory sciences and the modern languages. It is recommended that, whenever possible, the student spend at least three years in the College of Arts, Philosophy, and Sciences before entering a medical school. The student should determine, before registration, what medical school he will attend, and his course will be so arranged as to meet the requirements of that particular school. Almost all medical schools require at least two years each of Biology, Chemistry, and Modern Language (French or German), and one year each of English and Physics. Some require Latin in addition to the above. The curriculum of the student planning to enter a medical school will be chosen from the following

list in consultation with the Professor of Animal Biology and Botany.

Animal Biology and Botany.—1 and 2 Zoology, 26 Physiology, 51 and 52 Histology, 55 and 56 Embryology, 64 Comparative Anatomy, 91 Bacteriology.

Chemistry.—1 and 2 Inorganic Chemistry, 51 Qualitative Analysis, 61 and 62 Organic Chemistry.

Economics and Government.—1 Economic History of the United States, 61 Principles of Economics, 53 Labor Problems and Conditions, 2 American Government and Politics, 52 Sociology, 54 The Family.

English Language and Rhetoric.—1 and 2 Rhetoric and English Composition.

French.—1 and 2 Elementary French, 51 and 52 Second Year French.

German.—1 and 2 Elementary German, 51 and 52 Second Year German.

History.—1 Modern European History.

Latin.—1 Beginning Latin, 2 Caesar and Latin Prose Composition, 3 Cicero and Composition, 4 Vergil, 21 and 22 Freshman Latin.

Mathematics.—1 College Algebra and Plane Trigonometry, 3 College Algebra, 6 Plane and Spherical Trigonometry.

Physical Training.—1 and 2 for Men, 3 and 4 for Women.

Physics.—1 and 2 Elementary Physics, 51 and 52 General Physics.

Psychology.—51 General Psychology, 52 Advanced Psychology, 53 and 54 Experimental Psychology.

Spanish.—1 and 2 Elementary Spanish, 51 and 52 Second Year Spanish.

Elective.—Other courses in the University for which the student is prepared, and for which he has time.

GRADUATE SCHOOL OF ARTS, PHILOSOPHY, AND SCIENCES.

THE MASTER'S DEGREE.

For the present only the Master's degree in Arts or in Science is conferred by the University. Candidates for this degree are admitted to the Graduate School upon the completion of all the scholastic requirements for the Bachelor's degree in this University or some other institution of approved rank.

RESIDENCE REQUIREMENT.

At least one year must be spent by the candidate in residence before the Master's degree will be conferred upon him. The latest date for registration is four weeks after the opening of the University.

SCHOLASTIC REQUIREMENTS.

Each candidate for a Master's degree shall elect a major and a minor study, which shall bear satisfactory relationship to each other. The selection of the minor study must meet the approval of the head of the department in which the major study lies. A committee of at least three members of the Faculty of a rank above that of instructor shall supervise the candidate's course of study. The head of the department in which the major study lies shall be the chairman of this committee. The other members of this committee shall be those professors under whom work is taken. If study is pursued under only two members of the Faculty, these two shall elect a third member of the committee.

A reading knowledge of one modern language is required for admission to candidacy for a Master's degree. The language offered must meet the approval of the chairman of the committee. The committee may ascertain by examination or in any other way whether this requirement has been satisfied.

The amount and nature of the work required for the second degree lie in the discretion of the committee supervising the candidate's study but they shall always represent a certain

amount of intensive study, or investigation, or both, in some limited field, and may also include some extensive study.

MASTER'S THESIS.

A thesis is required of each candidate for the Master's degree and it shall embody the results of intensive study or research done in some field of the major study. The latest date for announcing the subject of such thesis shall be six weeks after the beginning of the first semester. The thesis must be approved by the major professor at least three weeks before the date on which the candidate expects to receive the degree. A typewritten copy must be deposited in the Library at least one week before Commencement day. (The Librarian should be consulted in regard to size and quality of paper and binding required.)

EXAMINATIONS.

Examinations covering the work required of the candidate by his committee may be held only at the close of the term of study, and may be entirely oral or partly oral and partly written, but there shall be at least a public oral examination.

DIPLOMA FEE.

A diploma fee of eight dollars is due and payable before Commencement Day.

COLLEGE OF FINE ARTS.

E. STANLEY SEDER, Assistant Professor of Piano and Theory of Music, Director.

The College of Fine Arts offers thorough courses in instrumental and vocal music, and in the theory of music. At a later date it is planned to incorporate courses in painting, drawing, oratory, and allied subjects coming within the field of this College. Full four-year courses are offered in piano, violin, and voice, leading to the degree of Bachelor of Music. These courses embrace four years' study of an instrument or of voice, together with a study of theoretical music and cultural subjects, thus combining specific musical study with the advantages of a liberal university course.

FEES.

In addition to the usual fees for entrance to the University, students enrolled in the Course in Piano, Voice, Violin, Viola, or Violoncello are required to pay the following fees:

Per semester, one lesson-hour each week.....$12.50
Per semester, two lesson-hours each week..... 25.00

REQUIREMENTS FOR GRADUATION.

All candidates for the degree of Bachelor of Music must complete the courses as outlined below, consisting of 128 credit hours in the Course in Piano, and 124 credit hours in the Courses in Voice and Violin. In addition they must complete 3 credit hours in Physical Training.

CHORUS, ORCHESTRA, AND BAND.

All students registered in the music courses of this College are required to enroll in either Choral or Orchestral work, unless excused by the Director. Thorough training in part-singing, secular and sacred, is given by the University Choral Club, which appears in concert several times during the year. An orchestra of some twelve or fourteen pieces is maintained, in which training in the routine of orchestral playing is offered. Music is furnished for assemblies, plays, concerts, and other public occasions. A uniformed band of twenty pieces has also been organized, to play at athletic contests and musical events.

Applicants must be fairly proficient on their respective instruments.

CLASS HOURS AND CREDIT HOURS.

An "hour" consists of 53 minutes. But two hours each week of Chorus or Orchestra earn 1 credit hour. Two hour-lessons each week in Piano, Violin, or Voice, with a passing grade in the required work of the course, earn 4 credit hours. Other courses earn as many credit hours as there are exercises each week.

Curriculum Leading to the Degree of Bachelor of Music.
Piano, Violin and Voice.

Freshman Year.

First Semester	Credits
Piano 1, or Violin 1, or Voice 1	4 hours
Theory of Music 1.....Harmony	3 hours
Modern Language	4 hours
English 1.....English Composition	3 hours
Chorus or Orchestra	1 hour
History 1	3 hours
Total	18 hours

Second Semester	
Piano 2, or Violin 2, or Voice 2	4 hours
Theory of Music 2.....Harmony	3 hours
Modern Language	4 hours
English 2.....English Composition	3 hours
Chorus or Orchestra	1 hour
History 2	3 hours
Total	18 hours

Piano, Violin and Voice.

Sophomore Year.

First Semester	
Piano 51, or Violin 51, or Voice 51	4 hours
Theory of Music 51.....Advanced Harmony	2 hours
Theory of Music 61.....History of Music	2 hours
Psychology 51.....General Psychology	3 hours
Modern Language	4 hours
Chorus or Orchestra	1 hour
Total	16 hours

Second Semester		Credits
Piano 52, or Violin 52, or Voice 52		4 hours
Theory of Music 52	Advanced Harmony	2 hours
Theory of Music 62	History of Music	2 hours
Psychology	2 or	3 hours
Modern Language		4 hours
Chorus or Orchestra		1 hour
Total		15 or 16 hours

Piano.

Junior Year.

First Semester

Piano 101		4 hours
Theory of Music 121	Counterpoint	2 hours
Theory of Music 125	Composition	1 hour
Theory of Music 141	Normal Class	1 hour
Elective		3 hours
Second or Modern Language		4 hours
Chorus or Orchestra		1 hour
Total		16 hours

Second Semester

Piano 102		4 hours
Theory of Music 122	Counterpoint	2 hours
Theory of Music 126	Composition	1 hour
Theory of Music 142	Normal Class	1 hour
Elective		3 hours
Second or Modern Language		4 hours
Chorus or Orchestra		1 hour
Total		16 hours

Violin and Voice.

Junior Year.

First Semester

Violin or Voice 101		4 hours
Theory of Music 121	Counterpoint	2 hours
Theory of Music 125	Composition	1 hour
Theory of Music 141	Normal Class	1 hour
Piano 1 (half semester)		2 hours
Elective		3—6 hours
Chorus or Orchestra		1 hour
Total		14—17 hours

Second Semester

Violin 102 or Voice 102		4 hours
Theory of Music 122	Counterpoint	2 hours
Theory of Music 126	Composition	1 hour
Theory of Music 142	Normal Class	1 hour

	Credits
Piano 1 (half semester)	2 hours
Elective	3—6 hours
Chorus or Orchestra	1 hour
Total	14—17 hours

Piano.

Senior Year.

First Semester

Piano 151		4 hours
Theory of Music 175	Advanced Composition.	1 hour
Theory of Music 171	Canon and Fugue	1 hour
Theory of Music 191	Musical Analysis	1 hour
Chorus or Orchestra		1 hour
Elective		7—9 hours
Total		15—17 hours

Second Semester

Piano 152		4 hours
Theory of Music 176	Advanced Composition.	1 hour
Theory of Music 182	Instrumentation	1 hour
Theory of Music 192	Musical Analysis	1 hour
Chorus or Orchestra		1 hour
Elective		7—9 hours
Total		15—17 hours

Violin and Voice.

Senior Year.

First Semester

Violin 151 or Voice 151		4 hours
Piano 51 (half semester)		2 hours
Theory of Music 175	Advanced Composition.	1 hour
Theory of Music 171	Canon and Fugue	1 hour
Theory of Music 191	Musical Analysis	1 hour
Chorus or Orchestra		1 hour
Elective		5—7 hours
Total		15—17 hours

Second Semester

Violin 152 or Voice 152		4 hours
Piano 51 (half semester)		2 hours
Theory of Music 176	Advanced Composition.	1 hour
Theory of Music 182	Instrumentation	1 hour
Theory of Music 192	Musical Analysis	1 hour
Chorus or Orchestra		1 hour
Elective		5—7 hours
Total		15—17 hours

All students registered for courses in music must enroll for chorus or orchestra, unless excused by the director of music.

COURSES IN EDUCATION.

CHARLES E. HODGIN, Professor of Education, Chairman.

The purpose of the Courses in Education is to provide thorough professional instruction for teachers. They aim to bring together the essentials of all that directly bears upon pedagogy from descriptive, physiological, and experimental psychology; from the history of education; and from sociology, ethics, and a comparative study of the present educational systems—to the end that students may gain such knowledge of the nature and function of the subjects to be taught, as will give ability and power in the process of teaching. But the primary object throughout the course is to secure for the teacher adequate intellectual and moral development, high educational ideals, and the unfolding of his own originality and resourcefulness.

Students have excellent opportunities for observing regular school work in the modern and progressive schools of the city of Albuquerque, where all grades are represented, including an exceptionally well-equipped and up-to-date high school with an enrollment of 400 students. Visits are made under the direction or assignment of the professor in charge.

Students entering the College of Arts, Philosophy, and Sciences with a view to subsequent work in the Courses in Education, may take up a major course in any department; or they may select, subject to the approval of the Professor of Education and the Committee on Admission and Standing, a combined course of study designed to prepare them for the profession they have chosen, and to meet the requirements of the College.

COURSES OF STUDY.

The department of Education offers two courses: a four-year course leading to the degree of Bachelor of Pedagogy on the same scholastic basis as a B. A. degree; and a two-year course leading to a professional certificate from the University, for work covered, and a one-year State Certificate, subject to renewal for two and then for three years.

THE FOUR-YEAR COURSE.

The four-year course is intended to afford adequate training for prospective high school teachers and principals, for

teachers and principals of elementary schools, for supervisors of special subjects, and for superintendents of school systems.

The preparation for teaching which is afforded by this course includes a thorough grounding in the correct use of English, both spoken and written. No student should enter the teaching profession without adequate training of this kind, whatever subjects he may expect to teach, and graduation in the four-year course requires the attainment of a satisfactory standard in this particular.

The professional preparation of the teacher is found in the educational courses—psychology in education, history and theory of education, school management and administration, special methods in teaching, etc.

Another phase of the teacher's preparation is the knowledge of subjects to be taught. The four-year course makes provision for ample training in the languages, history, mathematics, and the sciences, including home economics.

THE DEGREE OF BACHELOR OF PEDAGOGY.

The degree of Bachelor of Pedagogy is conferred upon candidates who fulfill the requirements set forth below:

1. The completion of 128 credit hours of M work in subjects of college grade in addition to 4 credit hours in Physical Training. For every 7 credit hours of G work one less credit hour is required for graduation, and for every 7 credit hours of W work one extra credit hour is required. No student may carry more than 18 hours nor less than 12 hours without approval of the Chairman of the Courses in Education.

2. Candidates must have completed at least 25 credit hours in the group of psychology and philosophy, and the history and principles of education.

3. A sufficient number of courses must be taken in the subject or the two closely allied subjects which the candidate expects to teach in an elementary or high school, to satisfy the requirements of a major course: namely, 32 credit hours.

The diploma received upon the completion of these courses entitles the holder to the degree of Bachelor of Pedagogy and to a professional State Certificate.

Curriculum of Four-Year Course.

Group IA.

English 1 and 2	6 hours
English elective	6 hours

Group IB.

Foreign Language .....14 hours
Two languages are to be studied in High School and College.

Group II.

Economics, Government, History .....12 hours
Note.—U. S. History and Civics, and New Mexico History and Civics must be taken by those who do not offer these courses for entrance.

Group IIIA.

Chemistry, Mathematics, and Physics.....1 year-course

Group IIIB.

Psychology 51, 52, 56, General and Educational.....1½ years
Physical Training .....3 hours

THE TWO-YEAR COURSE.

Students who complete the two-year course will be granted a certificate indicating the amount of work completed. This certificate will entitle the holder to a one-year professional state certificate issued by the State Board of Education, and renewable for two and then for three years without examination, provided the preparatory work required by the State Board has been completed and satisfactory evidence of one and two years of successful teaching can be presented. For this certificate no substitution is allowed for History and Civics of the United States, and of New Mexico, and Physiology, all of at least a high school grade.

Curriculum of Two-Year Course.

First Year.

First Semester		Credits
Physical Training 1 or 3	Physical Training	1½ hours
Psychology 51	General Psychology	3 hours
Education 1	History of Education	3 hours
Education 9	Study of Spoken Language	3 hours
Education 15	Education and School Law in New Mexico	1 hour
Music 41	Public School Music	1 hour
Electives		5 or 6 hours

Second Semester		
Physical Training 2 or 4	Physical Training	1½ hours
Psychology 52	General Psychology	3 hours
Education 2	Education in America	3 hours
Education 10	Professional Course in Grammar.	3 hours
Education 18	Child Study	1 hour
Music 42	Public School Music	1 hour
Electives		5 or 6 hours

Second Year.

Philosophy 81	Ethics	4 hours
Education 51	Principles of Education	3 hours
Education 57	Special Methods	3 hours
Education 65	School Management	3 hours
Electives		3 or 4 hours

Manual Training-Drawing.

Second Semester

Psychology 56	Educational	3 hours
Government 52	Sociology	3 hours
Education 52	Professional Course in Arithmetic	3 hours
Education 58	Special Methods	3 hours
Education 64	Seminar in Current Problems	1 hour
Education 72	Observation and Conference	1 hour
Electives		3 hours

The required professional courses in Education may be taken in the Freshman and Sophomore years, or may be intercolated with the college course.

Special adjustment of courses will be made for students who elect Home Economics.

Elective subjects will be considered upon application of individual students. The following are suggested: English 1, 2; Economics 1; Government 2; Chemistry 1, 2; Biology 26; Spanish 1, 2, 51, 52; Home Economics 1, 2, 55, 56.

PROFESSIONAL HIGH SCHOOL TEACHER'S CERTIFICATE.

Negotiations are under way whereby graduates of this University will be awarded a professional high school teacher's certificate when certain requirements are met. These requiremnts are not yet formulated but they will probably be as follows:

The inclusion in the four years' course of 15 to 20 credit hours in the group of Psychology and Education: to-wit,

Psychology, not less than 8 credit hours.

History of Education, not less than 5 credit hours.

High School Methods of Teaching and Classroom Management, not less than 4 credit hours.

Elective in Psychology, or Education, or both, to total 15 to 20 credit hours.

The requirements in Physiology, the History and Civics of the United States, and of New Mexico, to which all applicants for all grades of certificates are strictly held, will have to be met by applicants for the professional high school certificate.

If these subjects have not been offered for entrance they must be taken before graduation.

Graduates of the University who include in their course the above prescribed subjects or whatever may be determined upon by the State Department of Education, will receive a certificate showing that they have completed this work. Upon the presentation of this certificate to the State Department of Education, a professional certificate will be issued permitting the holder thereof to teach in high schools in New Mexico for a period of three years. Upon the expiration of this time and upon the presentation of evidence of successful teaching, this certificate will be renewed on terms which are yet to be formulated by the State Department of Education.

Curriculum for High School Teachers.

First Semester

History of Education	3 hours
Principles of Education	3 hours
Public School Administration	3 hours

Second Semester

Educational Classics	2 hours
Moral Education	2 hours
Study of Spoken Language	3 hours
Current Educational Problems	1 hour
New Mexico School Law	1 hour

COLLEGE OF ENGINEERING.

The College of Engineering, organized in 1906, offers courses in chemical, civil, electrical, and geological engineering, and practical mechanics; it offers, in addition, at least the first two years of four-year courses in mechanical, mining, and sanitary engineering. The aim of each department is to make entrance requirements and requirements for graduation meet the standard of the leading scientific schools. The courses have been outlined so as to include both professional and cultural studies in order that the student may not only receive instruction in theory and practice but may also enlarge his mental horizon.

It is the endeavor of the departments of engineering to give a thorough grounding in mathematics and theoretical subjects during the earlier years, with a reasonable amount of specialization during the later years in each course. The drawing and laboratory instruction continues progressively throughout the four years in each course. Sufficient foreign language is introduced to enable the graduate to read professional German, Spanish, or French. In the fourth year of each course, with the exception of those in electrical and civil engineering, some special subject for investigation is taken up as a thesis for graduation.

INSPECTION TOURS.

From time to time throughout the course inspection tours are made, under the direction of an instructor, to engineering and industrial establishments in the city of Albuquerque, and the coal and metal mines, the mills, kilns, and smelters in this region. Through the courtesy of these concerns it is possible for the engineering students to get a much better idea of the actual processes and methods in use in up-to-date, practical plants than could possibly be gained in the shops and laboratories of an educational institution, where the equipment must of necessity be limited and more or less obsolete. In this way the observation work in connection with the discussions and practical work at the University laboratories offers excellent opportunity for the students to become familiar with practical applications.

FIELD WORK.

College credit is allowed for practical or applied field, laboratory, or office work, under the guidance of the professor in charge, on the basis of 1 hour's credit for each two calendar weeks occupied, provided that no more than 15 hours of such credits be allowed toward the graduation of any student.

GRADUATION REQUIREMENTS.

All candidates for the degree of Bachelor of Science in engineering courses must complete 144 credit hours with an average grade of G; 1 hour may be subtracted for each fifteen hours of S work, and 1 hour must be added for each fifteen hours of M work and 1 hour for each seven hours of W work. But the hours subtracted shall not include any specifically required course.

All of the above mentioned graduation requirements are exclusive of one year (3 credit hours) in Physical Training, to be earned in the freshman year.

GRADUATION WITH HONORS.

Each department lists 55 hours which are considered the major courses in that department. Students completing 45 of these hours with a grade of G or better and no grade below M, will be graduated with honors in that department.

MAJOR STUDY.

The major of the student in the College of Engineering is fixed by his choice of course.

The student may change his major subject only by permission of the Faculty but in so doing he must complete all the work required for graduation in his new major subject, no matter how many hours he may have completed in other departments.

THESIS.

Candidates for the degree of B. S. in Chemical or Geological Engineering are required to prepare a thesis in the Senior year upon some subject chosen by the head of the department in which the major course is being taken.

Curriculum Leading to the Degree of B. S. in Chemical Engineering.

Freshman Year.

First Semester		
English 1	English Composition	3 hours
Mathematics 1	Algebra and Trigonometry	5 hours
Chemistry 1	Inorganic Chemistry	3 hours
Practical Mechanics 11	Mechanical Drawing	3 hours
Practical Mechanics 1 or 3	Wood Working	3 hours
	Total	17 hours

Second Semester		
English 2	English Composition	3 hours
Mathematics 12	Analytical Geometry	5 hours
Chemistry 2	Inorganic Chemistry	5 hours
Practical Mechanics 5	Metal Working	2 hours
Practical Mechanics 12	Descriptive Geometry	3 hours
	Total	18 hours

Sophomore Year.

First Semester		
Chemistry 51	Qualitative Analysis	5 hours
Mathematics 51	Differential and Integral Calculus	5 hours
Physics 51	General Physics and Laboratory Practice	5 hours
English 41	(Or Advanced French, German, or Spanish)	3 hours
	Total	18 hours

Second Semester		
Chemistry 61	Organic Chemistry	3 hours
Mathematics 52	Differential and Integral Calculus	5 hours
Physics 52	General Physics and Laboratory Practice	5 hours
English 57 or 63	(Or Advanced French, German, or Spanish)	3 hours
Physics 62	Thermodynamics	3 hours
	Total	19 hours

Junior Year.

Second Semester		
Chemistry 52	Quantitative Analysis	5 hours
Chemistry 62	Organic Chemistry Laboratory	3 hours
Civil Engineering 105	Analytical Mechanics	5 hours
Elective		5 hours
	Total	18 hours

Second Semester

Chemistry 101	Quantitative Analysis	5 hours
Chemistry 111	Physical Chemistry	5 hours
Civil Engineering 108	Hydraulics	3 hours
Civil Engineering 106	Mechanics of Materials	4 hours
Chemistry 113	Metallurgy	2 hours
	Total	19 hours

Senior Year.

First Semester

Chemistry 102	Quantitative Analysis	5 hours
Electrical Engineering 101	Direct Current Machinery	3 hours
Electrical Engineering 121	Direct Current Laboratory	2 hours
Chemistry 171	Thesis	3 hours
Electrical Engineering 56	Machine Design	3 hours
Elective		2 hours
	Total	18 hours

Second Semester

Electrical Engineering 102	Alternating Current Machinery	3 hours
Electrical Engineering 122	Alternating Current Laboratory	2 hours
Electrical Engineering 181	Applied Electrochemistry	3 hours
Economics 62	Business Organization and Management	3 hours
Chemistry 171	Thesis	5 hours
Elective		2 hours
	Total	18 hours

Curriculum Leading to the Degree of B. S. in Civil Engineering.

Freshman Year.

First Semester

English 1	English Composition	3 hours
Chemistry 1	Inorganic Chemistry	3 hours
Mathematics 1	Algebra and Trigonometry	5 hours
Practical Mechanics 11	Mechanical Drawing	3 hours
Practical Mechanics 1 or 3	Wood Working	3 hours
	Total	17 hours

Second Semester

English 2	English Composition	3 hours
Chemistry 2	Inorganic Chemistry	5 hours
Mathematics 12	Analytical Geometry	5 hours
Practical Mechanics 12	Descriptive Geometry	3 hours
Practical Mechanics 5	Metal Working	2 hours
	Total	18 hours

Sophomore Year.

First Semester

Mathematics 51	Calculus	5 hours
Physics 51	General Physics	5 hours
Civil Engineering 51	Elementary Surveying	5 hours
English 41	(Or Advanced French, German, or Spanish)	3 hours
	Total	18 hours

Second Semester

Mathematics 52	Calculus	5 hours
Physics 52	General Physics	5 hours
Civil Engineering 52	Topographical Surveying (4)	5 hours
Civil Engineering 54	Railroad Curves (1)	
English 57 or 63	(Or Advanced French, German, or Spanish)	3 hours
	Total	18 hours

Junior Year.

First semester

Civil Engineering 101	Railroad Surveying	5 hours
Civil Engineering 105	Analytical Mechanics	5 hours
Geology 101	Mineralogy	5 hours
Optional—		
Mathematics 131	Differential Equations	)
Elective		) 3 hours
	Total	18 hours

Second Semester

Civil Engineering 106	Mechanics of Materials	4 hours
Civil Engineering 108	Hydraulics	3 hours
Civil Engineering 112	Graphic Statics	3 hours
Civil Engineering 130	Road Engineering	2 hours
Physics 112	Steam Engines, Boilers, etc.	3 hours
Geology 102	Engineering Geology	3 hours
	Total	18 hours

Senior Year.

First Semester

Civil Engineering 151	Masonry Construction	4 hours
Civil Engineering 155	Bridge Analysis and Details	5 hours
Civil Engineering 157	Metal Structures	2 hours
Civil Engineering 171	Water Supply	3 hours
Electrical Engineering 101 and 121	D. C. Machinery	5 hours
	Total	19 hours

Second Semester

Civil Engineering 152	Reinforced Concrete Design	3 hours
Civil Engineering 156	Bridge Design	5 hours
Civil Engineering 172	Sewerage	3 hours
Civil Engineering 190	Seminar	1 hour
Elective		5 hours
	Total	17 hours

Suggested Electives:

Civil Engineering 180	2 hours
Electrical Engineering 102 and 122	5 hours
Government 52	3 hours
Economics 62	3 hours
Economics 5	5 hours
Mathematics 140	3 hours
Civil Engineering 150	2 hours

Curriculum Leading to the Degree of B. S. in Electrical Engineering.

Freshman Year.

First Semester

English 1	English Composition	3 hours
Chemistry 1	Inorganic Chemistry	4 hours
Mathematics 1	Algebra and Trigonometry	5 hours
Practical Mechanics 11	Mechanical Drawing	3 hours
Practical Mechanics 1 or 3	Wood Working	3 hours
	Total	18 hours

Second Semester

English 2	English Composition	3 hours
Chemistry 2	Inorganic Chemistry	4 hours
Mathematics 12	Analytical Geometry	5 hours
Practical Mechanics 12	Descriptive Geometry	3 hours
Practical Mechanics 5	Metal Working	2 hours
	Total	17 hours

Sophomore Year.

First Semester

Mathematics 51	Calculus	5 hours
Physics 51	General Physics	5 hours
Civil Engineering 51	Elementary Surveying	5 hours
English 57 or 63	(Or Advanced German, French, or Spanish)	4 hours
	Total	19 hours

Second Semester

Mathematics 52	Calculus	5 hours
Physics 52	General Physics	5 hours
Electrical Engineering 55	Mechanism	2 hours
Physics 62	Thermodynamics	3 hours
English 58 or 64	(Or Advanced German, French, or Spanish)	4 hours
	Total	19 hours

Junior Year.

First Semester

Electrical Engineering 101 and 121	Direct Current Machinery	5 hours
Electrical Engineering 131	Electrical Measurements and Meters	3 hours
Civil Engineering 105	Analytical Mechanics	5 hours
Optional—		
Mathematics 131	Differential Equations	
Elective		5 hours
	Total	18 hours

Second Semester

Electrical Engineering 102 and 122	Alternating Current Machinery	5 hours
Physics 112	Steam Engines, Boilers, etc.	3 hours
Civil Engineering 106	Mechanics of Materials	4 hours
Civil Engineering 108	Hydraulics	3 hours
Optional—		
Mathematics 140	Engineering Mathematics)	
Electrical Engineering 142	Machine Design)	3 hours
	Total	18 hours

Senior Year.

First Semester

Electrical Engineering 103 and 123	D. C. Circuits and Laboratory	4 hours
Electrical Engineering 151 and 161	A. C. Machinery and Laboratory	4 hours
Electrical Engineering 171	D. C. Dynamo Design	2 hours
Electrical Engineering 181	Electrical Applications	5 hours
Electrical Engineering 62	Water Power Engineering	3 hours
	Total	18 hours

Second Semester

Electrical Engineering 152 and 162	A. C. Circuits and Machinery	5 hours
Electrical Engineering 182	Electrical Applications	5 hours

Electrical Engineering 191....	Seminar (Reading and Discussion of Current Topics).....	2 hours
Civil Engineering 180.....	Contracts and Specifications.....	2 hours
Optional—		
Economics 62.....	Business Organization	
Elective		3 hours
	Total.....	17 hours

Suggested Electives:
Chemistry 51, 52, 111,112,113
Civil Engineering 52, 151, 152
Electrical Engineering 199
Geology 51, 101, 102
Mathematics 101,134,137,185
History 81, 82, 85, 86
Economics 61, 80, 121, 122
Advanced German or Spanish

Curriculum Leading to the Degree of B. S. in Geological Engineering.

Freshman Year.

First Semester

English 1	English Composition	3 hours
Chemistry 1	Inorganic Chemistry	3 hours
Mathematics 1	Algebra and Trigonometry	5 hours
Practical Mechanics 11.....	Mechanical Drawing	3 hours
Language 1	Spanish, French, German.....	5 hours
	Total.....	19 hours

Second Semester

English 2	English Composition	3 hours
Chemistry 2	Inorganic Chemistry	3 hours
Mathematics 12.....	Analytical Geometry	5 hours
Practical Mechanics 12.....	Descriptive Geometry	3 hours
Language 2	Spanish, French, German.....	5 hours
	Total.....	19 hours

Sophomore Year.

First Semester

Geology 101	Engineering Mineralogy	5 hours
Physics 51	General Physics	5 hours
Mathematics 51	Calculus	5 hours
Chemistry 51	Qualitative Chemistry	5 hours
Language 51	Spanish, French, German.....	3 hours
	Total.....	*23 hours

*Not uncommonly students complete second-year language before the Sophomore year, so that the total of hours here is materially reduced; if not, it is better to begin geology in the Junior year.

Second Semester

Geology 102	Engineering Geology	5 hours
Chemistry 52	Quantitative Chemistry	5 hours
Physics 52	General Physics	5 hours
Mathematics 52	Calculus	5 hours
Language 52	Spanish, French, German	3 hours
	Total	*23 hours

Junior Year.

First Semester

Geology 51	Economic Geology	5 hours
Civil Engineering 51	Plane Surveying	5 hours
Civil Engineering 106	Mechanics of Materials	4 hours
Chemistry 52	Quantitative Chemistry	5 hours
	Total	19 hours

Second Semester

Geology 52	Economic Geology	5 hours
Geology 56	Petrology	5 hours
Geology 58	Field Mapping	2 hours
Civil Engineering 54	Railway Curves	1 hour
Elective		5 hours
	Total	18 hours

Senior Year.

First Semester

Geology 103	Local Geology	2 hours
Chemistry 131	Geo-Chemistry	2 hours
Chemistry 111	Physical Chemistry	5 hours
History 81	Latin America: The Colonies	3 hours
Electives		5 hours
	Total	17 hours

Second Semester

Geology 104	Seminar	2 hours
Geology 151	Thesis	5 hours
History 82	Latin America: The Republics	3 hours
Economics 62	Business Management	3 hours
Elective		4 hours
	Total	17 hours

Electives: Physiography, Historical Geology, Paleontology, Metallurgy, Psychology, Public Speaking, Economics, Greek, Latin.

Course Preparatory to Mechanical Engineering.

(First two years)

Freshman Year.

Same as Electrical Engineering.

Sophomore Year.

First Semester

Mathematics 51	Calculus	5 hours
Physics 51	General Physics	5 hours
English 57 or 63	(Or Advanced German, French, or Spanish)	3 hours
Practical Mechanics 3 or 5	Advanced Wood or Metal Working	2 hours
Elective		3 hours
	Total	18 hours

Second Semester

Mathematics 52	Calculus	5 hours
Physics 52	General Physics	5 hours
English 58 or 64	(Or Advanced German, French, or Spanish)	3 hours
Electrical Engineering 55	Mechanism	2 hours
Optional—		
Physics 112	Steam Eng., Boilers, Sta. Aux...)	
Physics 62	Thermodynamics .....)	
Civil Engineering 108	Hydraulics .....)	3 hours
	Total	18 hours

Course Preparatory to Sanitary Engineering.

(First two years)

Freshman Year.

Same as Civil Engineering.

Sophomore Year.

Same as Civil Engineering.

COURSE IN HOME ECONOMICS.

The Course in Home Economics is organized to meet the special needs of women students. A general course extending through four years and leading to the degree of Bachelor of Science is planned for those wishing to specialize in home economics; and this course may be varied considerably to meet the needs of the various students. Individual courses are open to all students who meet the requirements regarding prerequisites. The aim of the department is to give women students an opportunity to acquire a comprehensive knowledge of the social and economic phases of household management as well as of the primary mechanical phase.

The courses in sewing include a study of textiles, care and repair of clothing, and something of the hygiene of clothing, and cannot be considered complete without a certain amount of training along artistic and economic lines.

The care of the house leads directly into the scientific field and to the study of bacteriology, which is the basis of house sanitation as well as the foundation on which rests all our advance in sanitary science. Moreover, the housekeeper broadens her field to include municipal housekeeping because she knows that neglect to that side of the question will prevent securing health and happiness for her own family.

One of the most important phases of the work is that which deals with foods; as a foundation for thorough work in this subject, a course is given in foods, their composition and the principles of cookery. This includes experimental work on which all the food courses are based, and gives a thorough understanding of the composition of our common foods and their use in the body. This work is supplemented by courses in dietetics and advanced cooking. The question of the balanced ration is carefully studied and applied. Standard dietaries are compared and the conditions affecting food requirements are discussed.

On the whole, the work in the Course in Home Economics involves also considerable study of chemistry, psychology, and biology.

Curriculum Leading to the Degree of B. S. in Home Economics.

Freshman Year.

First Semester

English 1	English Composition	3 hours
Chemistry 1	Inorganic	4 hours
Biology 1	Zoology	4 hours
Home Economics 1	Textiles and Sewing	3 hours
Modern Language		4 hours
	Total	18 hours

Second Semester

English 2	English Composition	3 hours
Chemistry 2	Inorganic	4 hours
Biology 2	Elementary Physiology	3 hours
Home Economics 2	Textiles and Sewing	3 hours
Government 52	Sociology	3 hours
Modern Language		4 hours
	Total	20 hours

Sophomore Year.

First Semester

Biology 91	Bacteriology	3 hours
Psychology 51	General Psychology	3 hours
Home Economics 55	Foods	3 hours
Home Economics 73	Home Nursing	2 hours
Modern Language		3 or 4 hours
Chemistry 51	Qualitative Analysis	5 hours
	Total	19 or 20 hours

Second Semester

Psychology 52	Advanced Psychology	3 hours
Chemistry 52	Quantitative Analysis	5 hours
Home Economics 56	Foods	3 hours
Home Economics 62	Advanced Sewing	3 hours
Home Economics 74	Hygiene and Sanitation	2 hours
Modern Language		3 or 4 hours
	Total	19 or 20 hours

Junior Year.

First Semester

English	Elective	3 hours
Home Economics 115	Dress Making	3 hours
Home Economics 105	Advanced Cooking	3 hours
Economics 53	Labor Problems	3 hours
Chemistry 61	Organic	3 hours
Psychology 57 or 101		3 hours
	Total	18 hours

Second Semester

Home Economics 126	Dietetics	4 hours
Government 54	The Family	3 hours
English	Elective	3 hours
Home Economics 132	House Management	4 hours
Electives		3 hours
	Total	17 hours

Senior Year.

First Semester

Home Economics 181	Serving of Meals	3 hours
Economics 61	Principles of Economics	3 hours
Electives		9 or 11 hours
	Total	15 or 17 hours

Second Semester

Home Economics 194	Teachers' Course and Demonstration	4 hours
Economics 64	Current Economic Problems	3 hours
Electives		9 hours
	Total	16 hours

Summary of Requirements in the Course in Home Economics.

Home Economics	40 hours
Chemistry	21 hours
Biology	10 hours
Psychology	9 hours
Economics and Government	15 hours
Modern Language	14 or 16 hours
English	12 hours
Electives	21 or 23 hours
Total	144 hours

DIVISION OF UNIVERSITY EXTENSION.

CLARENCE E. BONNETT, Professor of Economics and Government, Director.

The various services extended by the University to residents of the state include the following:

Correspondence Study in college and vocational subjects under the direction of the University Faculty;

Lectures in series, with syllabi, for study-clubs, and single lectures for special groups and general audiences;

Extension Teaching in co-operation with educational institutions conducting continuation and evening schools;

Debating and Public Discussions stimulated and organized by state contest, bulletins containing formulated questions with briefs and bibliographies, and library loan material;

General Information on matters pertaining to education, state and local government, public health, civic improvement, and other subjects of special but common interest;

Surveys, Research, and Investigation in fields and on subjects of community and state importance;

Suggestive Aid for county, town, and municipal boards, commissions, and councils, school boards, commercial clubs, civic and economic betterment associations;

Exhibits, Conferences, and Institutes for public information upon vocational, educational, and social welfare matters.

Requests for further information should be addressed to the Director.

CORRESPONDENCE STUDY COURSES.

The University offers this year to non-resident students a large number of courses by correspondence. These courses enable the ambitious to pursue their studies anywhere in the state. Spare moments may thus be utilized to the best advantage. The papers sent in by the student are read and corrected by regular members of the Faculty only; no student-assistants are assigned to do this work. The very best of instruction is thus assured. The charge for tuition in these courses is $4.50 for each credit hour. For example, a three-

hour college course costs $13.50. A full year's preparatory course also costs $13.50, a half year's, $6.75.

All courses carry a credit of three hours, unless otherwise indicated.

MR. BONNETT.

(Preparatory Courses.)

(1) Elements of Economics; ½ unit.
(2) Civil Government; ½ unit.
(3) Elements of Sociology; ½ unit.

(University Courses.)

(1) Principles of Economics.
(2) American Government and Politics.
(3) Principles of Sociology.
(4) Money and Banking.
(5) Labor Problems.
(6) Employers' Associations in Industrial Peace and Warfare.
(7) Municipal Government.
(8) Taxation.
(9) Governments of Europe.
(10) Political Parties.
(11) Introduction to Political Science.

MR. BRENNEMAN.

(1) General Physics.

MR. CLARK.

(1) Foundations of Chemistry.

MR. EDINGTON.

(1) College Algebra.
(2) Analytical Geometry.
(3) Plane and Spherical Trigonometry.
(4) Differential and Integral Calculus.
(5) Differential and Integral Calculus; 5 hours.
(6) Differential Equations.
(7) Analytical Geometry of Three Dimensions.
(8) Definite Integrals.
(9) Advanced Algebra.
(10) Theory of Equations.
(11) History and Teaching of Elementary Mathematics.

MISS HICKEY.

(1) English Literature, 1557-1599.
(2) English Literature, 1599-1660.
(3) English Literature, 1660-1781.
(4) English Literature, 1782-1832.
(5) English Literature, 1833-1910 (Poetry).
(6) English Literature, 1833-1910 (Prose).
(7) American Literature.
(8) Short History of the Novel.

MR. HILL.

(1) Ancient History.
(2) Mediaeval History.
(3) Modern European History.
(4) English History, 55 B. C.-1603 A. D.
(5) English History, 1603-1910.
(6) American History, 1492-1829.
(7) American History, 1829-1913.
(8) Latin-American History.

MR. HODGIN.

(1) History of Education.
(2) Education in the United States.
(3) Principles of Education.

MR. KIRK.

(1) Mineralogy.
(2) Physiography.
(3) Economic Geology.

MR. MITCHELL.

Greek Language and Literature.
(1) Elementary Greek.
(2) The Anabasis of Xenophon.
(3) Attic Greek Prose.
(4) Greek Drama.

Latin Language and Literature.
(1) Elementary Latin; 6 hours.
(2) Caesar: De Bello Gallico; and Latin Composition; 6 hours.
(3) Cicero's Orations; and Composition; 6 hours.
(4) Sallust: Catiline; and Composition.
(5) Vergil: Aeneid; 6 hours.
(6) Latin Prose Composition.
(7) Advanced Composition.

MR. NELSON.

(1) German: Schiller's Dramas.
(2) French: Moliere's Dramas.
(3) Spanish: Dramas of the Nineteenth Century.
(4) Advanced Spanish Composition and Grammar.

MR. SEDER.

(1) Harmony; 2 hours.
(2) History of Music.

MR. SHERWIN.

(1) History of Rhetoric and Literary Criticism.
(2) History of Rhetoric and Literary Criticism.
(3) History of the Short-Story.
(4) History of the Literary Essay in English.

MR. WAND.

(1) Shop Sketching.
(2) Reinforced Concrete Construction.
(3) Elements of Structures.
(4) Steam Boilers.
(5) Shop Arithmetic.
(6) Shop Mathematics.

MR. WEESE.

(1) General Biology.
(2) Elementary Physiology.
(3) Zoology.
(4) Botany.

MR. WORCESTER.

(1) General Psychology.
(2) Social Psychology.
(3) Child Psychology.

LECTURES AND LECTURE COURSES.

The University has prepared a list of lectures which will be given in any locality in the state whenever suitable arrangements can be made. The lectures given cover a wide range of thought. They will be presented to the general public in a popular way, so as to be both instructive and interesting.

The University makes no charge for these lectures. It does, however, require the locality or group of cities to pay the traveling expenses of the lecturer. Cities may arrange lecture courses during the fall, winter, or spring. By organizing a circuit, they can reduce the expenses of the lectures to a minimum. Communities which desire to avail themselves of the opportunity presented should write the Director as early as possible, stating their wants.

The following is a partial list of the lectures offered:

MR. BONNETT.

(1) Is Our Democracy in Danger?
(2) What Is a Progressive?
(3) The Economic Law of Efficiency.
(4) Our Labor Wars.
(5) Regulation or Public Ownership.
(6) The Prospects for a World-Wide Peace.

MR. BRENNEMAN.

(1) How We Measure the Size of an Electron.
(2) The Electric Theory of Energy and Matter.
(3) How We Analyze the Sun.

MR. CLARK.

(1) Matter in the Making.
(2) The Air We Breathe.
(3) The Great Iron and Steel Industry.
(4) Madame Curie and the Discovery of Radium.
(5) Ptomaines and Leucomaines.
(6) The Adulteration of Foods.
(7) Dangers of Fire and Explosions.

MR. HODGIN.

(1) Seven Hundred Miles up the Nile.
(2) The Holy Land.
(3) Greece—"Yesterday and Today."
(4) Modes of Travel and Customs of the People.
(5) Removing Limitations.
(6) The Emotional Life.
(7) Rousseau—"The Strangest Man of France."
(8) "The Story of the Stars."

MR. KIRK.

(1) Origin of Surface Features of New Mexico and the Southwest.
(2) The Derivation of Soils from Rocks.
(3) The Canyons and Buried Channels of Western Streams.
(4) The Place and Effect of Man in Nature.
(5) Underground Waters.
(6) The Coal Resources of New Mexico and Their Conservation.

MISS LATHROP.

(1) Business Methods of Home Making and Household Finance.
(2) The Home as a Center of Consumption and the Consumer's Responsibility.
(3) The Relation of the Home to the Community and Civic Problems that are of Vital Interest to the Homemaker.
(4) Labor and Time-saving Devices in the Home.
(5) A Survey of the Field of Home Economics.
(6) Practical Applications of the Results of Recent Researches in Dietetics.

MR. MITCHELL.

(1) Illustrated Lecture on Pompeii.

MR. SHERWIN.

(1) Great English Prose Writers.
(2) Great English Literary Critics.
(3) The Short-Story in America.
(4) The Literary Essay in England.

MR. WEESE.

(1) Modern Aspects of Heredity.
(2) Some Psycho-Chemical Properties of Living Matter.
(3) The Origin of Life.
(4) The Philosophy of Science.

MR. WORCESTER.

(1) The Drawings of Children.
(2) The Laws of Habit.
(3) Memory: How It May Be Developed.
(4) The Juvenile Delinquent.
(5) The Juvenile Court.

DIVISION OF PHYSICAL TRAINING AND ATHLETIC SPORTS.

RALPH F. HUTCHINSON, Director.

THE UNIVERSITY GYMNASIUM.

Two well equipped gymnasiums are at the disposal of the young men and women who attend the University. All Freshmen are required to take a course in hygiene and physical training, and are required to undergo a physical examination before entering this course. Three hours' credit is given for this work. Classes of one hour duration, three times a week, are required. This work must be completed for graduation.

When not in use for the required work, the gymnasium is also open to all members of the University. The office of the director contains all the apparatus for the physical examinations, and also for the strength tests which are taken at the beginning and the end of the college year. The records of these are filed and the student at any time may have a copy of his record.

The physical examination is intended to ascertain the fitness of the student for the gymnasium work and if he is found unfit, other exercise for his proper development will be given.

The strength test is based upon the following items: age, weight, and height; the number of pounds lifted with the back and legs straight; the number of pounds lifted with the legs bent; the strength of the grip of the right and left hands; the strength of the shoulder retractor and contractor muscles; and the strength of the arms pulling and pushing. These added together give the total strength of the individual. Dividing the total strength by the weight gives the strength weight index, that is, the proportionate strength per pound in weight of the individual.

Following is the class average for men during the past two years:

	Fall 1914	Spring 1915	Fall 1916
Age	18.9	19.4	18.9
Weight	136.3 lbs.	141.0	137.4
Height	68.0 in.	68.1	68.8
Lung Capacity	227.9 cu. in.	257.0	225.0
Grip, Right	102.7 lbs.	110.0	102.4
Grip, Left	90.8 lbs.	91.5	90.4
Shoulder Contraction	113.0 lbs.	123.5	118.0
Shoulder Retraction	105.4 lbs.	117.8	103.0
Arm Pull	353.0 lbs.	389.0	386.0
Arm Push	291.8 lbs.	324.0	319.7
Leg Lift	552.7 lbs.	643.5	623.8
Back Lift	276.3 lbs.	340.0	334.1
Total Strength	1885.7	2140.3	2077.4
Strength Weight Index	13.8	15.2	15.1

The annual gymnasium exhibition takes place on February 22 at the Albuquerque Armory.

ATHLETIC SPORTS.

The athletic sports in vogue in the University are football, baseball, track and field, basketball, and tennis. All students who are physically fit are encouraged to take part in these sports, but in order to take part in any competitive intercollegiate contest the student must conform to the scholarship rules of the University, which are administered by the Faculty Committee on Athletics and Eligibility.

Besides the gymnasium the Varsity Fieldhouse, containing shower baths and lockers, is for the use of the Varsity teams, and is convenient to the Athletic Field. The Athletic Field contains a quarter-mile running track, 220 yards straightaway, baseball diamond, football gridiron, as well as places for broad and high jumping and pole vaulting, and for throwing the hammer and discus, and putting the shot. Five tennis courts are kept up for the use of the students. All outdoor athletic contests are held on the grounds of the University Athletic Field.

The University is a member of the Rocky Mountain Conference and its teams may compete with those of any other member, i. e. of the state institutions of higher education in Colorado, Utah, Wyoming, and Montana.

DIVISION OF PREPARATORY STUDIES.

It is the avowed policy of the University to discontinue secondary work as rapidly as possible. In the last few years the number of high schools has grown so that there is no longer any justification for offering the work of the first two years. High school students are advised to attend their nearest high school and finish the course offered before coming to the University. The University has no intention of competing with local high schools. There still remains, however, a number of two- and three-year high schools and to the graduates of these schools the University still owes the duty of offering such courses as will complete their high school work. A few students also enter the Freshman class with a deficiency in one or two units, and must complete the entrance requirements in the first year of residence. It is for these two classes of students that a few courses are offered in the Division of Preparatory Studies. A minimum of eight units (two years' work) should be presented in all cases.

Inasmuch as the majority of the students who present themselves for preparatory courses are more mature in years than the average of the students attending high schools and desire to make as rapid progress as possible, practically all of the courses offered in this division cover the field more rapidly than is done in high schools. Some courses accomplish two years of high school work in one year and the others accomplish in the same time one and one-half years' work as usually done in high schools. The Preparatory Division exists, therefore, only for those earnest and diligent students who are desirous of making rapid progress and are willing to exert themselves sufficiently.

DESCRIPTION OF COURSES.

English Language and Rhetoric.

B1. Third Year High School English.—Advanced practice in composition. Reading and study of the books prescribed for the College Entrance Requirements under the Head of B: Study. First semester. 1 unit.

English Literature.

B2. Fourth Year High School English.—Historical survey, with supplementary reading, of either English or American literature. Second semester. 1 unit.

History.

B. American History.—Texts: Muzzey: American History; and McKinley: Outline Topics in American History. Second semester. 1 unit.

French.

A. French.—This course does not differ from Courses 1 and 2 described in the department of Romance Languages and Literatures—French. 1 unit.

B. French.—The same as Courses 51 and 52 in the department of Romance Languages and Literatures—French. 1 unit.

German.

A. Elementary German.—The same as Courses 1 and 2 described in the department of German Language and Literature. 1 unit.

B. Second Year German.—The same as Courses 51 and 52 described in the department of German Language and Literature. 1 unit.

Latin.

A. Beginning Latin and Caesar.—This course is designed to cover rapidly the work usually done in two years. The first semester will be devoted to a study of the common forms, idioms, and construction and to the translation of Latin as contained in some good primer. The second semester will be given to the reading of four books of Caesar or the equivalent, to advanced grammar and syntax, and prose composition. 6 hours. 2 units.

B. Cicero and Composition.—Six orations of Cicero or two orations of Cicero and the Catiline of Sallust. Latin prose composition. An introduction to the study of Roman political institutions. Special attention is given to the art of translating into clear, vigorous English. First semester, 5 hours. 1 unit.

C. Vergil.—Translation of six books of the Aeneid or of the equivalent. Special study of epic poetry as a species of literature. Outside reading of Homer in English translation. A comparison of the religious beliefs held by the Ancients and the people of the Middle Ages, as portrayed by the Odyssey, Book XI, and the Aeneid, Book VI, and the Divine Comedy of Dante. Topics for private investigation and report. Second semester, 5 hours. 1 unit.

Spanish.

A. Elementary Spanish.—Hill and Ford: Spanish Grammar; Hill: Spanish Tales for Beginners. Zaragueta; Taboada: Cuentos Alegres. Writing from dictation and practice in speaking. 1 unit.

B. Second Year Spanish.—Prerequisite: Course A. Composition, conversation, and extensive reading. Loiseaux: Spanish Composition; Hill and Reinhardt: Spanish Short Stories. Tamayo: Un drama nuevo; Palacio Valdes: La hermana San Sulpicio; plays by Echegaray, Moratin, etc. 1 unit.

Mathematics.

A. Algebra.—This course covers the same ground covered in the third half-year in high school, beginning with quadratics and completing the book. This course must be taken by students who expect to enter the College of Engineering. Second semester, five hours. ½ unit.

B1. Plane Geometry.—First 24 weeks. 1 unit.

B2. Solid Geometry.—Last 12 weeks. ½ unit.

Geology.

A. Physiography.—See Course 5 under department of Geology. 1 unit.

B. Commercial Geography.—See Course 7 under department of Geology. 1 unit.

Physics.

A. Physics.—The course covers the class work represented by Carhart and Chute: High School Physics; or Millikan and Gale: First Course in Physics. The instruction in the classroom is supplemented by 3 hours each week in the laboratory throughout the school year. 1 unit.

Practical Mechanics.

A1. Elementary Shop Work. ½ unit.

A2. Mechanical Drawing.—See department of Practical Mechanics. ½ unit.

B. Advanced Wood Work.—This course is open only to those students who have completed Course A or its equivalent. ½ unit.

PUBLICATIONS.

BULLETINS OF THE UNIVERSITY OF NEW MEXICO.

CATALOGUE SERIES.

		Whole No.
v. 1	Catalogue 1892	1
v. 2	Catalogue 1892-93	2
v. 3	Catalogue 1893-94	3
v. 4	Catalogue 1894-95	4
v. 5	Catalogue 1895-96	5
v. 6	Catalogue 1896-97	6
v. 7	Catalogue 1897-98	7
v. 8	Catalogue 1898-99	8
v. 9	Catalogue 1899-1900	9
v. 10	Catalogue 1900-01	10
v. 11	Circular of information 1902	11
v. 12	Catalogue 1902-03	12
v. 13	Catalogue 1903-04	13
v. 14	Catalogue 1904-05	14
v. 15	Catalogue 1905-06	40
v. 16	Catalogue 1906-07	43
v. 17	Catalogue 1907-08	46
v. 17	No. 2 Supplement	48
v. 18	Catalogue 1908-09	50
v. 19	Circular of information 1909-10	54
v. 20	Catalogue 1909-10	55
v. 21	Circular of information 1910	56
v. 22	Summer school bulletin 1911	59
v. 23	Catalogue 1910-11	60
v. 24	Summer school bulletin 1912	64
v. 25	Catalogue 1911-12	67
v. 26	Catalogue 1912-13	70
v. 26	No. 2 Preliminary announcement—Correspondence study department	72
v. 27	Catalogue 1913-14	74
v. 27	No. 2 Annual reports of Treasurer and Registrar	77
v. 28	Catalogue 1914-15	78
v. 28	No. 2 Departments of music and home economics	79
v. 28	No. 3 Information about the University of New Mexico	80
v. 28	No. 4 Interscholastic track meet	81
v. 29	Catalogue 1915-16	82
v. 29	No. 2 Annual reports of Treasurer and Registrar	85
v. 30	Catalogue 1916-17	86

BIOLOGICAL SERIES.

GEOLOGICAL SERIES.

GRADUATES, 1916.

BACHELOR OF ARTS.

Carolyn Beals	Major: English and History
Katherine Isabel Chaves	Major: Romance Languages
Myrtle L. Dunn	Major: Psychology and Education
George Adlai Feather	Major: Greek and Latin
Walter Frank Gouin	Major: Geology
Ernest W. Hall	Double Major: English and Social Science
Albert Shirley Hunt	Major: Social Science
Lydia Kraxberger	Major: German and French
Leslie E. Logan	Major: Education and Psychology
Ruth Emmett McKowen	Major: Home Economics
Margaret Rahfield	Major: Psychology and Education
George Alexander Threlkeld	Major: Social Science

BACHELOR OF SCIENCE IN CIVIL ENGINEERING.

Kenneth C. Balcomb
Howard Saisselin Bateman

CANDIDATES FOR DEGREES, 1917.

CANDIDATES FOR DEGREE OF BACHELOR OF ARTS.

Laura Chase Allen	Major: Biology Minor: English Literature
Allene Atkinson Bixler	Major: English Literature Minor: Psychology
Louie Croft Boyd	Major: Biology Minor: English Literature
Carl David Brorein	Major: Social Science Minor: Geology
Allen E. Bruce	Major: Social Science
George Lyndall Butler	Double Major: Mathematics and Social Science
Daphne Harriet Fortney	Major: Home Economics
Thelma Emma Fortney	Major: Home Economics
John Walter Gruner	Major: German Minors: Geology, Spanish
Bernice Hamilton	Major: German Minor: Home Economics
Helen Latamore	Major: Latin
Joseph Edward McCanna	Major: English Literature
Raymond James McCanna	Major: History Minor: Spanish

Jennie Childers Partch.....Major: Social Science
Fern Hazel Reeves.....Major: Biology
Minor: Education
Joseph Bernhardt Rosenbach.....Major: Mathematics
Minors: Physics, Chemistry
Maxwell M. Sindeband.....Major: Romance Languages
Minors: German, Social Science
Pryor B. Timmons.....Major: Social Science
Minor: Latin
Louise Wilkinson.....Major: Biology
Minor: Education

CANDIDATES FOR DEGREE OF BACHELOR OF SCIENCE.

BACHELOR OF SCIENCE IN HOME ECONOMICS.

Ethel Louise Kieke

BACHELOR OF SCIENCE IN CHEMICAL ENGINEERING.

Milan Langer Doering

BACHELOR OF SCIENCE IN CIVIL ENGINEERING.

Howard Risley Fullerton
John Alexander Lapraik

CANDIDATES FOR DEGREE OF MASTER OF ARTS.

George Adlai Feather, B. A.....Major: Latin
Minor: Greek
Thesis: Prepositional Phrases as Modifiers of Nouns
Committee: Mitchell, Boyd, Nelson

Paul Lynn Menaul, B. S.....Major: Chemistry
Minor: Biology
Thesis: Analyses of Reptilian Urine.
Committee: Clark, Weese, Kirk

DIRECTORY OF STUDENTS.

Explanation of symbols.—After each name is given the college, School, Division, or Course in which student has registered. APS—College of Arts, Philosophy, and Sciences; Com—Course in Commerce; LA—Course in Latin-American Affairs; PreL—Pre-Law Course; Pre-Med—Pre-Medicine Course; Educ—Course in Education; FA—College of Fine Arts; Eng—College of Engineering; HE—Course in Home Economics; Grad—Graduate School; Prep—Preparatory Division. The figures indicate the number of credit hours earned by the close of the first semester, 1916-1917, but when followed by "u" they indicate units towards college entrance. *—Withdrawn before end of semester. 1—In residence first semester only. 2—Entered second semester.

Name and Home Address	Course	Hours of Credit
Alldredge, Helen L., Springer	Prep	9 u
Allen, Laura Chase, Albuquerque	APS	118
Anderman, Eleanor Gibbs, Albuquerque	APS	47
Arnot, Elizabeth B., Albuquerque	APS	48
Atkinson, Allie M., Roswell	HE	39.8
1Aydelotte, Carl E., Roswell	APS	35
2Bacon, Wallace, Albuquerque	APS	0
2Barth, Maurice, Albuquerque	Pre-L	27
Bell, Anna L., Albuquerque	APS	38
Bernhardt, Clifford G., Cuervo	APS	11
*Bigler, Lillian S., Albuquerque	Grad	
1Birkeland, Leona, Marshalltown, Ia.	Educ	79
Bixler, Allene A., Albuquerque	APS	114
Bizzell, Cameron, Buchanan	Ext	
*Blanden, Elaine, Chicago, Ill.	APS	0
Boldt, Chester C., Albuquerque	APS	16
Boldt, Irene A., Albuquerque	APS	88
Boldt, Leslie G., Albuquerque	APS	41.7
1Borgerding, Leo, Melrose, Minn.	APS	0
Borgerding, Martha, Melrose, Minn.	APS	9.6
Bower, Chalmers H., Alamogordo	Eng	48
Boyd, Louie C., Albuquerque	APS	108
Brewer, Everett P., Aztec	Com	19
Brorein, Carl D., Albuquerque	APS	100.8
Brorein, Mary C., Albuquerque	APS	47
Bruce, Allen E., Albuquerque	APS	117.9
*Bruce, Dora, Albuquerque	Spl	0
1Bullock, Harlan, Albuquerque	APS	8
*Burns, Ross J., Alva, Okla.	APS	14
Butler, George L., Farmington	APS	125.9
Cady, Mildred, Lake Arthur	APS	14

	Caldwell, Charles S., Portales	PreL	13.5
*	Caldwell, William R., Portales	Spl	0
	Carmony, Florence A., Albuquerque	Educ	45
	Carroon, Frank B., Santa Fe	APS	3
	Chandler, George O., Cimarron	Eng	51
	Chaves, Katherine I., Albuquerque	Grad	
	Chavez, Ezequiel, Albuquerque	LA	41
	Chess, Flora E., Albuquerque	Educ	16
1	Claiborne, George Robert, Albuquerque	Eng	50.5
	Clark, E. Carlton, Deming	Eng	17
	Clark, Homer, Albuquerque	APS	28.1
*	Clark, John Lee, Albuquerque	Spl	0
1	Cole, Roger L., McAlester, Okla.	Pre-Med	0
	Cole, William F., Artesia	Com.	14
2	Conley, Arthur H., Albuquerque	Prep.	9.5 u
	Conway, Katherine, Albuquerque	APS	11
	Cook, Margaret L., Albuquerque	HE	87
	Cooper, Hugh P., Albuquerque	APS	17
	Cooper, Lula E., Gallup	HE	27
	Costin, James W., Indianapolis, Ind.	APS	5
	Craig, Reginald S., Fort Sumner	Eng	37
	Cristy, Anne G., Albuquerque	LA	18
	Cristy, Edward J., Albuquerque	APS	11
	Croft, George V., Albuquerque	APS	34.6
	Darling, Richard W., Deming	Eng	14
	Darrow, Helen, Albuquerque	Educ	19
	Davis, Lois A., Albuquerque	APS	9
	DeHuff, John D., Albuquerque	APS	98
	Doering, Milan L., Albuquerque	Eng	125.5
*	Doering, Viola F., Albuquerque	Spl	0
	Doxey, Thomas A., San Antonio, Tex.	Eng	12.6
	Dunlap, Erastus T., Dunlap	APS	40
*	Dunn, Samuel C., Mills	Prep	0
	Dunning, Glenn W., Aztec	Pre-L	0
	Eldodt, Joseph M., Chamita	Com	45.9
	Emmons, Glenn L., Albuquerque	APS	59
	Farr, George S., Albuquerque	Prep	0
	Feather, George Adlai, Artesia	Grad	
	Feather, Shirley S., Artesia	APS	41.6
	Fergusson, Lina H., Albuquerque	APS	64.5
	Fetzer, Clair A., Alamogordo	Eng	46
	Fielder, Forrest, Deming	APS	55.2
	Flournoy, Margaret E., Albuquerque	APS	43
	Fortney, Daphne H., Albuquerque	APS	111
1	Fortney, Thelma E., Albuquerque	APS	131
1	Frazey, Joseph, Albuquerque	Spl	47
1	Fullerton, Howard R., Albuquerque	Eng	149
	Garrett, Opal, Canutillo, Tex.	APS	17

Garrett, Wayne M., Canutillo, Tex.	APS	17	
Garton, Charles R., Rolla, Kas.	Eng	11	
Gerhardt, Charles, Puerto de Luna	Prep	9.5	u
Gerhardt, Earl A., Tucumcari	Com	39	
Gilmore, Harold F., New Orleans, La.	Prep	9	u
Givan, George W., Albuquerque	APS	16	
Gonzalez, Jennie M., Gallup	APS	32	
Gray, Allen B., Hanover	Eng	23.6	
Gray, Fred E., Hanover	Eng	11	
Grimmer, William, Albuquerque	Com	19	
Gruner, John W., Albuquerque	APS	113	
Gustafson, Lillian V., Albuquerque	APS	84	
Hamilton, Bernice, Tucumcari	APS	111	
Hammond, William E., Albuquerque	APS	48	
Hart, Mayme B., Lovington	APS	34	
Hawkins, Hazel K., Albuquerque	APS	13	
Hawthorne, Alberta O., Albuquerque	HE	39.6	
Hayden, Gladys, Albuquerque	Educ	18	
Heacock, Abby G., Albuquerque	HE	25.6	
Henderson, Martha, Roswell	Educ	41.3	
Hennrich, Mabel E., Albuquerque	Educ	17	
*Herkenhoff, Hiram H., Albuquerque	APS	0	
Hernandez, Ralph O., Albuquerque	Com	14	
Heslet, Frank G., Albuquerque	APS	55.3	
Hickey, Herbert A., Albuquerque	Eng	17	
Hoch, Lucien H., Albuquerque	Eng	37.6	
Hoffman, G. Skiles, High Point, N. C.	Eng		
Hoge, Hermione, Socorro	LA	13	
Holt, Alice, Tucumcari	Educ	11	
Hoover, James E., High Point, N. C.	Eng	81	
Hope, Myrl, Albuquerque	APS	61	
Hopewell, Robert W., Albuquerque	APS	17.7	
Hopewell, Willard S., Albuquerque	APS	13.4	
Horner, Rebecca M., Albuquerque	Com	51	
Howden, Angelica, Albuquerque	Uncl	14	
Howden, Douglas F., Albuquerque	APS	33.5	
Howell, Hazel, Albuquerque	Spl	4	
Hubbell, Julie E., Pajarito	APS	8	
1Humphrey, Goodwin O., Portales	Eng	0	
Hunter, Carl L., Albuquerque	Prep	10.5	u
1Jenkins, Mary H., Albuquerque	Prep	8	u
*Johnson, Edward W., Albuquerque	Eng	56	
Johnson, James C., Tularosa	Com	11	
Keinath, Harold A., Artesia	Com	13	
Keleher, Katherine, Albuquerque	APS	10	
Kelly, Georgia K., Albuquerque	Uncl	0	
Kempenich, Lillian M., Albuquerque	APS	11	
2Kiech, Vera, Nettleton, Ark.	APS	26	

Kieke, Ethel L., Albuquerque	HE	110	
King, Edward E., Albuquerque	APS	83	
2King, Mrs. Julia, Baltimore, Md.	Spl	0	
*Kremis, Frank H., Albuquerque	APS	0	
1Langston, Calvin L., Portales	Eng	18.9	
1Lapraik, John A., Albuquerque	Eng	135	
Larsh, Harold D., Artesia	APS	17	
Latamore, Eunice, Raton	APS	46	
Latamore, Helen, Raton	APS	111	
Lee, Floyd W., Albuquerque	APS	76	
*Lee, Harry B., Faison N. C.	APS	0	
Lester, Lorna, Albuquerque	Prep	12	u
Lewis, Alice J., Albuquerque	Prep	9	u
*Linnell, William L., Artesia	APS	0	
Little, Clinton, Albuquerque	Spl	21	
Little, Kathren, Albuquerque	APS	12.4	
Long, Evalyne C., Albuquerque	APS	14	
Long, Kathleen, Albuquerque	HE	85	
Loudon, Thelma D., Albuquerque	APS	64	
Manville, Newell E., Albuquerque	Eng	9	
Mason, Frank E., Toms River, N. J.	Grad		
Masten, Alfred R., Cimarron	APS	50	
Menaul, Paul L., Albuquerque	Grad		
Meyers, Ralph E., Albuquerque	Eng	13.5	
Michael, Carolyn E., Albuquerque	Educ	47	
*Miller, Harold, Hagerman	APS	22	
Miller, R. E., Albuquerque	Spl	3	
Mills, Mayme R., Dalhart, Tex.	Prep	11.5	u
2Mirabal, Monico, San Rafael	Prep	13.5	u
Moore, Robert J., Clovis	APS	14	
Morgan, Jean, Roswell	Prep	7	u
Morgan, Seals G., Roswell	Com	39	
Morris, Clyde Y., Farmington	PreL	19	
2Morris, Mrs. Daisy, Farmington	Spl	0	
Morrow, Howard E., Prescott, Ariz.	Pre-Med	36.6	
Mozley, Paul P., Elk	Eng	52.6	
McCanna, Joseph E., Albuquerque	APS	104.4	
McCanna, Margaret, Albuquerque	APS	13	
McCanna, Raymond J., Albuquerque	APS and Ext	113	
McClellan, Pelham, Albuquerque	Eng	49.7	
McDonough, Eleanor, Deming	Educ	44	
2McGowan, Gertrude M., Taos	Prep	9	u
McGrann, Hazel I., Dawson	Prep	8.9	
McLay, Helen M., Albuquerque	Educ	16.3	
McMains, Orion L., Dexter	Eng	10	
*McMillen, Katherine L., Albuquerque	Prep	11.2	u
McVicker, Fred, Dexter	PreL	38	
Nohl, Louis E., Española	APS	47	

O'Laughlin, Mary, Albuquerque	APS	15.7	
Olds, Earl P., Albuquerque	APS	24	
1O'Rielly, Joseph H., Albuquerque	APS	5	
Ott, Lawrence, Gypsum, Kas.	APS	50	
*Parker, Ethel M., Albuquerque	Educ	39.3	
Parkhurst, Walter N., Albuquerque	Com	13.9	
Partch, Mrs. Jennie C., Albuquerque	APS	110	
1Patrick, David L., Iowa City, Ia.	Prep	13.5	u
Patton, Perkins, Clovis	APS	0	
Paulsen, Herbert F., E. Las Vegas	LA	16	
Pennington, Elizabeth, Farmington	APS	81	
Perry, Evangeline, Albuquerque	APS	8.6	
Perry, Harold C., Albuquerque	APS	38	
Porterfield, Blanche I., Albuquerque	APS	59	
Powell, John S., Jr., Newman, Ga.	Eng	13.9	
1Putney, Lyman B., Albuquerque	Prep	8	u
Reeves, Fern H., Las Cruces	APS	117	
Richardson, Donovan M., Roswell	APS	19	
Romero, Samuel M., San Marcial	Prep	7	u
Rosenbach, Joseph B., Albuquerque	APS	121	
Rosenberg, Sylvia S., Albuquerque	APS	13.9	
Sabin, Fred T., Albuquerque	Spl	25.6	
2Scruggs, John M., Jefferson City Mo.	Eng	0	
Selsor, Beatrice B., Albuquerque	Educ	46	
Sharp, Jonathan, Greenville, Ill.	Prep	9.5	u
2Sheahan, John Alonzo, Fitzgerald, Ga.	Eng	95.5	
2Shelton, George H., Alamogordo	APS	59	
Shields, Adelaide, Jemez Springs	FA	25	
Shields, Hastings M., Jemez Springs	APS	43	
Short, Fletcher L., Albuquerque	Eng	17	
Simms, Elizabeth H., Albuquerque	APS	47	
Sindeband, Maxwell M., New York, N. Y.	APS	121	
Sinesio, Pietro, Dawson	Prep	7.5	
Skipwith, Rebecca, Roswell	APS	15.8	
2Smith, Herbert W., Santa Fe	Grad		
Spickard, Lillian M., Albuquerque	Educ	34	
Spiller, Thomas J., Alamo	APS	0	
*Starrette, Amy M., Gallup	APS	0	
*Stateson, Ruth, Albuquerque	Educ	53	
Steed, John T., Deming	Com	17	
Sundt, Thoralf M., Las Vegas	APS	51	
*Sutliff, Albert R., Aztec	APS	0	
Swinney, Clara J., Aztec	Educ	6	
Switzer, Hortense V., Albuquerque	FA	10	
2Taylor, Reuben D., Texarkana, Tex.	Uncl	0	
*Taylor, Richard K., Deming	APS	7	
Terpening, Ralph L., Artesia	Eng	8	
Thacker, Helen G., Raton	FA	43.1	

Thackrey, Lyman A., Albuquerque	Eng	36.7	
Thompson, Wilmer Paul, Farmington	APS	14	
Timmons, Pryor B., Portales	APS	117	
Tombs, John, Albuquerque	Spl	0	
Towner, Harvey A., Farmington	Eng	11	
Trotter, Evelyn R., Albuquerque	APS	9.9	
2Trumbell, George N., Bell Ranch	Prep	7.5	u
Upton, Philip R., Deming	APS	69.4	
Vauchelet, Laurie J., Roswell	Eng	31	
Venable, Jessie, Albuquerque	HE	50	
Vincent, Helen M., Albuquerque	APS	49	
Vincent, Lyle S., Albuquerque	APS	44	
von Wachenhusen, Shirley, Silver City	APS	92.9	
Wait, James L., Chicago, Ill.	APS	55	
2Walker, Lee W., Alamogordo	APS	65	
Watson, Mrs. Edna, Albuquerque	Spl	38	
Weese, Mrs. Josephine M., Albuquerque	Grad		
Weinman, Annette R., Albuquerque	APS	5.4	
White, George W., Albuquerque	APS	52.9	
Wigely, Robert G., Albuquerque	APS	23.9	
Wilfley, Vernon B., Roswell	APS	17	
Wilkinson, Louise, Albuquerque	APS	116	
Williams, Jason C., Mountainair	LA	14	
Williams, Lillian B., Albuquerque	APS	32	
Williams, Thomas J., Alamo	Com	19	
Willingham, Vivian G., Albuquerque	Prep	9.5	u
Wilson, Byron F., Atrisco	APS	25.4	
Wilson, Helen L., Raton	APS	12.7	
Wimberley, Arthur B., Hagerman	Eng	13.9	
Wolking, Clifford, Albuquerque	Eng	88	
*Wood, Eva L., Albuquerque	APS	0	
Woodward, Bertram B., Silver City	Eng	17	

Average age of all students, 21.1 years.

SUMMARIES.

OFFICERS.

REGENTS	7
FACULTY	
President and Professors	17
Associate Professors	2
Assistant Professors	1
Total	20
OTHER OFFICERS OF INSTRUCTION AND ADMINISTRATION	
Directors	1
Instructors	4
Secretaries	1
Total	6

SUMMARY OF SECONDARY SCHOOLS REPRESENTED, 1916-1917.

The following list shows the high schools or private schools in which students now enrolled in the University received their college preparatory work. A numeral indicates the number of students from each school.

NEW MEXICO HIGH SCHOOLS.

Albuquerque	67	Lovington	1
Artesia	6	Las Vegas	2
Aztec	3	Miami	1
Cimarron	2	Mountainair	1
Clovis	3	Otero Co. H. S.	5
Dawson	1	Portales	3
Deming	6	Raton	4
Dexter	2	Roswell	10
Farmington	4	San Marcial	1
Española	1	Silver City	1
Gallup	1	Socorro	1
Guadalupe Co. H. S.	3	Tucumcari	2
Hagerman	4		
Lake Arthur	1		136

STATE EDUCATIONAL INSTITUTIONS (PREP. DEPT.)

A. & M. College (Prep. Dept.)	3
New Mexico Normal School (Prep. Dept.)	2
N. M. Normal University (Prep. Dept.)	2
N. M. Military Institute	2
University of New Mexico (Prep. Dept.)	17
	26

PRIVATE SCHOOLS IN NEW MEXICO.

Loretto Academy (Santa Fe)	1
St. Michael's College (Santa Fe)	1
St. Vincent's Academy (Albuquerque)	3
Rio Grande Industrial School	2
Albuquerque Business College	1
	8
Students prepared in New Mexico	170

HIGH SCHOOLS IN OTHER STATES.

Anderson, Ind.	1	Nashville, Tenn.	1
Blackwell, Tex.	1	Newman, Ga.	1
Caroline, Md.	1	Norman, Okla.	1
Cleveland, O.	2	New Orleans, La.	1
Dalhart, Tex.	1	New York City	2
Dallas, Tex.	2	Pecos, Tex.	1
Davenport, Ia.	1	Palatine Township, Ill.	1
East Troy, Wis.	1	Pendleton, Ore.	1
El Paso, Tex.	2	Pigott, Ark.	1
Flandreau, S. D.	1	Portland, Ore.	1
Greenfield, Ind.	1	Prescott, Ariz.	1
Greenville, Ill.	1	San Antonio, Tex.	1
Gypsum, Kas.	2	Seattle, Wash.	2
High Point, N. C.	1	South Bend, Ind.	1
Hutchinson, Kas.	1	Springfield, Mo.	1
Inglewod, Ill.	1	St. John's University, (Prep. Dept.)	1
Iowa City, Ia.	1	Syracuse, N. Y.	1
Kenosha, Wis.	1	Univ. of Ark. (Prep. Dept.)	1
La Junta, Col.	2	Washington, D. C.	1
Los Angeles, Cal.	1	Zanesville, O.	2
Kansas City, Kas.	1	Jefferson City, Mo.	1
Kansas City, Mo.	1	Topeka, Kas.	1
Marshalltown, Ia.	1	Tampa, Fla.	1
Millersbury, O.	1		
Moline, Ill.	1		
Mount Olive, N. C.	1		56

PRIVATE SCHOOLS IN OTHER STATES.

Amboy Academy	1	Sam Houston Normal Institute	1
Girls' Collegiate	5	Stamford Academy	1
Gunston Hall	1	St. Benedict's Academy	1
Holbrook School	2	St. John's Military Academy	1
Madeira School	1	Williamson School	1
Marshall Academy	1	Wheaton Academy	1
McKendree Academy	1	Milla Maria Academy	1
National Cathedral School, Sem.	1	Galloway Academy	1
			21

Secondary Schools of New Mexico represented	36
Secondary Schools of other states represented	67
Total	103

SUMMARY OF CONDITIONED FRESHMEN.

The University admits to the Freshman Class students who can present 13 units of secondary work on the condition that this deficiency in entrance be removed the first year of residence. The following table shows the number of Freshmen thus admitted the current year:

Deficiency	Number of Students	Subjects
One-fifth unit	2	Physics Laboratory
One-half unit	2	Solid Geometry
One-half unit	1	Elective
One unit	2	Plane Geometry
One unit	2	Laboratory Science
One unit	1	Elective
One and one-half units	2	Laboratory Science 1 unit Elective ½ unit
Two units	1	Foreign Language

In addition to above, two students, who were classified the first semester as members of the Preparatory Division, accumulated by the end of the semester 13½ and 14½ units respectively and were registered the second semester as conditioned Freshmen.

SUMMARY OF STUDENTS BY HIGHER INSTITUTIONS REPRESENTED.

Explanatory Note.—Students who have entered the University with advanced standing above the Freshman Class by presenting credits earned elsewhere. The names of institutions attended by such students previous to matriculation at the University of New Mexico and the number of students from each institution is given in the appended table.

Baker University	2	New Mexico A. & M. College	1
Carroll College	1	New Mexico Normal School	4
Case School	1	New Mexico Normal Univ.	3
Chicago Normal College	1	Oberlin College	1
Chicago University	2	Park College	1
College of the City of N. Y.	1	Polytechnic Inst., Brooklyn	1
Colorado College	1	Polytechnic Inst. of Georgia	1
Colorado Training School	1	Roanoke College	1
Columbia University	1	Rutgers College	1
Dickinson College	1	Saint Olaf College	1
Florida State Col. for Women	1	Simmons College	2
Galloway College	1	Temple University	1
George Washington Univ.	1	University of Arkansas	1
Girls' Collegiate School	1	University of California	1
Harvey Medical College	1	University of Colorado	2
Illinois Women's College	1	University of Kentucky	1
Indiana University	1	University of Michigan	1
James Milliken University	1	University of Minnesota	1
Kansas Wesleyan	1	University of N. Carolina	1
Marshall College	1	University of So. California	3
Muskingum College	1	University of Texas	1

Valparaiso University	1	Wooster College	1
Western Reserve Univ.	1	University of Arizona	1

Total institutions	46
Total students with advanced standing	56

SUMMARY OF STUDENTS BY COUNTIES IN NEW MEXICO AND BY STATES.

(Based on Home Addresses.)

San Juan	12	
Rio Arriba	2	
Taos	1	
Colfax	9	
Mora	1	
Union	0	
San Miguel	3	
Santa Fe	2	
Sandoval	2	
McKinley	3	
Valencia	1	
Bernalillo	129	
Torrance	1	
Guadalupe	5	
Quay	3	
Curry	2	
Roosevelt	5	
Chaves	16	
Lincoln	0	
Socorro	2	
Grant	4	
Sierra	0	
Luna	8	
Doña Ana	3	
Otero	5	
Eddy	8	
Total New Mexico		227
Arizona	1	
Arkansas	1	
Georgia	2	
Illinois	3	
Indiana	1	
Iowa	2	
Kansas	3	
Louisiana	1	
Maryland	1	
Minnesota	2	
Missouri	1	
New Jersey	1	
New York	1	
N. Carolina	3	

Oklahoma	2
Texas	3
Total other states	28
Total	255

SUMMARY OF ATTENDANCE BY CLASSES, 1912-JAN. 22, 1917.

	1912-13	1913-14	1914-15	1915-16	1916-17
From New Mexico	90	86	127	194	226
From other states	9	23	10	25	28
From foreign countries	0	0	0	3	0
Totals	99	109	137	222	254
Graduate students	1	1	1	3	7
Seniors	6	12	5	15	23
Juniors	12	6	13	21	25
Sophomores	10	17	28	49	61
Freshmen	33	38	45	87	99
Special	5	9	8	22	13
Extension	0	0	0	0	2
Unclassified	0	0	0	0	3
Education	11	7	12	11	*
Total college rank	78	90	111	208	233
Sub-College (or Preparatory)	21	18	15	14	23
Total	99	109	137	222	†256

Increase in College students between 1912-Jan. 20, 1917, 156.

SUMMARY OF STUDENTS BY COLLEGES, SCHOOLS, COURSES, AND DIVISIONS.

Graduate School of Arts, Philosophy, and Sciences	7
College of Arts, Philosophy, and Sciences	119
Course in Commerce	13
Course in Latin-American Affairs	5
Course Preparatory to Law	5
Course Preparatory to Medicine	2
College of Fine Arts	3
Course in Education	16
College of Engineering	37
Course in Home Economics	8
Specials	13
Unclassified	3
Extension Division	2

*Education students for 1916-1917 are included in the total.
†One name counted twice; total enrollment, 255.

Preparatory Division	23
Total	256
Name counted twice	1
	255

For example, the numbers given for Fine Arts and Home Economics do not show the total number of students taking courses in this College and Course.

SUMMARY OF WORK DONE IN EACH DEPARTMENT, FIRST SEMESTER.

Department	Hours Offered	Number of Students
Ancient Languages (Latin and Greek)	31	35
Biology	23	31
Chemistry	25	66
Civil Enginering	31	40
Education	20	55
English Language	8	91
English Literature	23	74
Geology	15	43
History	15	88
Home Economics	15	43
Mathematics	33	66
Modern Languages (French, German, Spanish)	35	161
Music	22	31
Philosophy and Psychology	14	68
Physical Training	3	55
Physics and Electrical Engineering	23	25
Practical Mechanics	8	17
Social Science (Economics and Government)	18	110

ALUMNI ASSOCIATION.

CONSTITUTION.

ARTICLE I.—NAME.

The name of this association shall be the Alumni Association of the University of New Mexico.

ARTICLE II.—OBJECT.

This association is formed for the purpose of forwarding the interests of the University and of the State, and of bringing the State and University into closer touch, each with the other.

ARTICLE III.—MEMBERS.

Any graduate or ex-student of the College of Arts, Philosophy, and Sciences (not dishonorably dismissed), and any graduate of any other college, school, or course of the State University prior to the summer of 1915, may become a member of this Association by making application to the Secretary of the Association, presenting therewith proper proof of his eligibility as herein set out, together with his annual dues.

ARTICLE IV.—OFFICERS.

The officers of the Association shall consist of a President, a Vice-President, a Secretary, and a Treasurer, all of whom shall be elected at the annual meeting.

ARTICLE V.—PRESIDENT.

The President, or in his absence, the Vice-President, or in the absence of both President and Vice-President, one of the members, shall preside at all meetings of the association.

ARTICLE VI.—EXECUTIVE COMMITTEE.

The President, Vice-President, Secretary, and Treasurer shall constitute the executive committee, who shall manage the affairs of the Association, subject to the By-Laws. They shall have charge of the property of the Association. They shall arrange the program for the regular meeting, and shall do and perform all acts imposed by the By-Laws, and incident to their duties as such executive committee.

ARTICLE VII.—SECRETARY.

The Secretary shall collect all dues and fees, and other moneys, and turn them over to the Treasurer, giving the sources from which moneys were received, and taking his receipt therefor, and shall keep a record of the proceedings, and conduct all necessary correspondence of the Association, and shall discharge such other duties as shall be required of him by the Association.

ARTICLE VIII.—TREASURER.

The Treasurer shall open and keep an account with each member as reported to him by the Secretary, and by order of the Executive Committee shall disburse the moneys of the Association and discharge such other duties as shall be required of him by the Association. He shall give security in the sum and in such form for the safe keeping of and accounting for moneys of the Association coming to his hands, as shall be required by the Executive Committee.

ARTICLE IX.

There shall be a committee of three members, who shall furnish information about the University to all preparatory schools, and colleges and universities in New Mexico. Three members will be elected at the first annual meeting to serve one, two, and three years respectively.

ARTICLE X.—MEETINGS.

The annual meeting of the Association shall be held at such time and place as shall be determined upon at the annual meeting of the Association each year, which annual meeting shall continue as one session for all general purposes until it is finally adjourned, and there shall be such adjourned meetings as the Association may determine, and at such adjourned meetings any business of the Association may be transacted except the election of officers.

Special meetings may be called at any time by the President.

At every meeting of the Association the presence of _____ members shall be necessary to constitute a quorum.

ARTICLE XI.—FEES.

The admission fee shall in all cases be one dollar, which shall be paid as provided in the By-Laws, and which shall cover dues in the year in which the applicant is elected.

ARTICLE XII.—ELECTIONS.

At each annual meeting there shall be elected by ballot the officers of the Association for the year next ensuing, and they shall hold office until their successors have been duly elected and qualified.

In case of a vacancy in any office, it shall be filled by appointment by the Executive Committee.

OFFICERS.

PEARCE RODEY, President.
LAURA McCOLLUM MILLER, '14, Vice-President.
IRA V. BOLDT, '14, Secretary.
ROBERT T. SEWELL, '12, Treasurer.

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