

UNIVERSITY OF NEW MEXICO
COLLEGE OF LIBERAL ARTS
OFFICE OF DEAN



BULLETIN

OF THE

University of New Mexico

WHOLE NO. 60

CATALOGUE SERIES

MAY, 1911

VOLUME, 23

CATALOGUE

1910-1911

ANNOUNCEMENTS FOR 1911-1912

ALBUQUERQUE, NEW MEXICO

PUBLISHED QUARTERLY BY THE UNIVERSITY OF NEW MEXICO
ENTERED MAY 1, 1906, AT ALBUQUERQUE, N. M., AS SECOND CLASS MATTER
UNDER ACT OF CONGRESS OF JULY 16, 1904

PUBLICATIONS

OF THE

University of New Mexico

ALL the University Publications are issued as Bulletins. These are arranged in a continuous series, numbered consecutively. The Bulletins are classified according to subject matter and each class is given a separate title and carries its own volume number. These classes issued to date are as follows:

Catalogue Series, Vols. I-XXII; whole numbers 1-14, 40, 43, 46, 48, 50, 54, 55, 56, 60.

Biological Series, Vols. I-III; whole numbers 15, 16, 19, 22, 29-39, 44, 47, 49.

Geological Series, Vols. I-III; whole numbers 17, 18, 20, 21, 23-28, 28a, 51.

Educational Series, Vol. I; whole numbers 41, 42, 52, 58.

Language Series, Vol. I; whole numbers 45, 53.
Unclassified whole number 57.

BULLETIN

OF

The University of New Mexico



CATALOGUE, 1910-1911

ANNOUNCEMENTS

1911-1912

ALBUQUERQUE, NEW MEXICO

JOURNAL PUBLISHING COMPANY
ALBUQUERQUE, N. M.

1 9 1 1

University of New Mexico

Founded February 28th, 1889

Board of Regents

HIS EXCELLENCY THE GOVERNOR OF NEW MEXICO,
Ex-Officio.

THE TERRITORIAL SUPERINTENDENT OF PUBLIC IN-
STRUCTION, Ex-Officio.

HON. FRANK W. CLANCY.....Albuquerque

REV. A. M. MANDALARI.....Albuquerque

HON. W. D. MCBEE.....Clovis

DR. JAMES H. WROTH.....Albuquerque

HON. R. W. HOPKINS.....Albuquerque

Officers of the Board

FRANK W. CLANCY.....President

JAMES H. WROTH.....Secretary and Treasurer

HARRY F. LEE.....Clerk

Faculty of the University

E. D. McQUEEN GRAY, M. A., Ph. D.,
President of the University and Professor of His-
tory. University Hill.

*CHARLES E. HODGIN, B. Pd.,
Dean and Registrar of the University and Professor
of Education. University Hill.

MARTIN F. ANGELL, B. S., M. A.,
Dean of the College of Science and Engineering, and
Professor of Physics and Engineering.
406 South High Street.

MENDEL SILBER, B. A., B. H., M. D.,
Acting Professor of Education.
114 South Seventh Street.

JOSEPHINE S. PARSONS, A. B.,
Secretary of the Faculty, Associate Professor and
Principal of the Commercial Department.
901 Tijeras Avenue.

ETHEL A. HICKEY, B. A.,
Associate Professor of English.
114 North Walter Street.

*DELLA J. SISLER, B. L. S.,
Librarian and Associate Professor of Library
Science. University Hill.

JOSEPH R. WATSON, A. M.,
Associate Professor of Biology.
212 South High Street.

* In Europe on sabbatical leave of absence, 1911-12.

JOHN D. CLARK, M. S.,
Associate Professor of Chemistry.
University Hill.

JENNER A. PYNCH, A. B.,
Associate Professor of Geology.
University Hill.

WARREN I. MOORE, A. M.,
Associate Professor of Classics.
126 North Arno Street.

HERMON H. CONWELL, B. S.,
Associate Professor of Mathematics.
University Hill.

LEON B. STEPHAN, A. B.,
Assistant Professor of German and Latin.
University Hill.

G. R. ROBERTS, C. E.,
Assistant Professor of Civil Engineering.
815 North Fourth Street.

HELENA EGYPTIADES,
Director of the Department of Music.
University Hill.

Preceptress and Mistress of the Dining Hall.
University Hill.

ANITA THOMAS,
Instructor in Spanish.
600 West Lead Avenue.

MARC BOUNIMOVITCH, M. A.,
Instructor in French.
University Hill.

IDA SCHAEFER, A. B.,
Acting Librarian.

323 South Edith Street.

* * * * *

ERNA FERGUSON,
Student Assistant in College History.
West Central Avenue.

EDWIN STANLEY SEDER,
Student Assistant in Music.
902 South Edith Street.

ALICE McMILLIN,
Student Assistant in the Commercial School.
911 North Second Street.

ALICE CAROLINE SCHREIBER, B. A.,
Student Assistant in Preparatory History.
923 North Second Street.

//

Officers of Administration

E. D. McQUEEN GRAY, President.

*CHARLES E. HODGIN, Dean and Registrar.

†MARTIN F. ANGELL, Dean of the College of Science and Engineering.

JOSEPHINE S. PARSONS, Principal of the Commercial Department.

The Preceptress and Mistress of the Dining Hall.

HERMON P. CONWELL, Proctor of the Men's Dormitory.

* On Sabbatical leave, 1911-12.

† Acting Registrar, 1911-12.

Committees 1910-11

Schedule and Curriculum—E. A. Hickey, J. D. Clark.

Student Standing—C. E. Hodgin, J. A. Pynch, E. A. Hickey, L. B. Stephan.

Student Functions—J. S. Parsons, D. J. Sisler, H. H. Conwell.

Student Discipline—E. A. Hickey, J. S. Parsons, J. D. Clark, L. B. Stephan.

Athletics—J. D. Clark, H. H. Conwell, L. B. Stephan, Walter Allen.

Campus—J. D. Clark, H. H. Conwell, J. R. Watson.

Publications—C. E. Hodgin, D. J. Sisler, J. S. Parsons, L. B. Stephan, J. R. Watson, J. D. Clark, W. I. Moore, A. Thomas.

Student Appointments—H. H. Conwell, J. S. Parsons, May Ross, J. D. Clark, G. R. Roberts, J. A. Pynch.

Dormitory and Dining Hall—D. J. Sisler, J. S. Parsons, A. Thomas.

Commencement—J. D. Clark, E. A. Hickey, L. B. Stephan.

Class Advisers

College—Seniors, C. E. Hodgin; Juniors, J. D. Clark; Sophomores, J. R. Watson; Freshmen, E. A. Hickey.

Preparatory School—Third Year, L. B. Stephan; Second Year, J. S. Parsons; First Year, Miy Ross.

Committee Appointments for 1911-12

Schedule and Curriculum—E. A. Hickey, M. F. Angell.

Student Standing—M. F. Angell, E. A. Hickey, J. A.

Pynch, L. B. Stephan.

Student Functions—The Preceptress, H. H. Conwell.

Student Discipline—J. D. Clark, E. A. Hickey, W. I. Moore.

Athletics—M. F. Angell, J. D. Clark, H. H. Conwell, R. F. Hutchinson.

Campus—G. R. Roberts, J. R. Watson.

Catalogue—W. I. Moore, M. F. Angell, E. A. Hickey.

Student Appointments—J. S. Parsons, J. A. Pynch, L. B. Stephan.

Dormitory and Dining Hall—The Preceptress, J. S. Parsons, A. Thomas.

Commencement—J. D. Clark, E. A. Hickey.

Graduate Studies—M. F. Angell, W. I. Moore.

Extension Courses—J. D. Clark, L. B. Stephan.

Secretary of the Seminar, College of Letters and Arts,
Erna Fergusson.

Secretary of the Seminar, College of Science and Engineering,
Marc Bounimovitch.

General Information

Origin and History

The University had its origin in an act passed February 28, 1889, by the Territorial Legislative Assembly of New Mexico, the bill being introduced by Hon. B. S. Rodey, who worked faithfully for its passage, and who has remained ever since a firm friend of the institution.

The following extracts are taken from the act :

SECTION 1. There is hereby created and established within and for the Territory of New Mexico, an institution of learning to be known as "The University of New Mexico." Said institution is hereby located at or near the Town of Albuquerque, in the County of Bernalillo, within two miles north of Railroad Avenue in said town, upon a tract of good, high and dry land, of not less than twenty acres, suitable for the purpose of such institution, which said land shall, within six months from the passage of this act, be donated and conveyed free of any cost and expense, to the Territory of New Mexico, by G. W. Mylert; provided, that no improvements or buildings as hereinafter provided for, shall be made or erected upon said land until such deed is duly executed, recorded and filed in the office of the Secretary of the Territory, as hereinafter provided.

SEC. 7. The University of New Mexico, hereby created and established, is intended to be the State University, when New Mexico shall be admitted as a state into the Union, and as such is entitled to all the donations of lands and other benefits under all acts of Congress, now in force or hereafter to be enacted,

for the benefit of such educational institutions in the future state.

SEC. 8. The object of the University hereby created shall be to provide the inhabitants of the Territory of New Mexico and the future state, with the means of acquiring a thorough knowledge of the various branches of literature, science and arts.

SEC. 9. The management and control of said University, the care and preservation of all property of which it shall become possessed, the creation and construction of all buildings necessary for its use, and the disbursement and expenditure of all moneys appropriated by this act, shall be vested in a board of five Regents, to consist of five qualified voters, who shall be owners of real estate in this Territory.

SEC. 11. The Regents of the University and their successors in office shall constitute a body corporate under the name and style of "The Regents of the University of New Mexico," with the right, as such, of suing and being sued, of contracting and being contracted with, of making and using a common seal, and altering the same at pleasure.

SEC. 14. The Regents shall have power and it shall be their duty to enact laws, rules and regulations for the government of the University.

SEC. 15. The University shall have departments, which shall hereafter be opened at such times as the Board of Regents shall deem best, for instruction in science, literature and the arts, law, medicine, engineering and such other departments and studies as the Board of Regents may from time to time decide upon, including military training and tactics.

SEC. 16. The immediate government of the several departments shall be intrusted to their respective

faculties, but the Regents shall have the power to regulate the course of instruction, and prescribe the books and authorities to be used in the several departments, and also to confer such degrees and grant such diplomas as are usually conferred and granted by other Universities. The Regents shall have the power to remove any officer connected with the University, when in their judgment the interests require it.

(a) The University created by this act shall be open to the children of all residents of this Territory and such others as the Board of Regents may determine, under such rules and regulations as may be prescribed by said board, whenever the finances of the institution shall warrant it, and it is deemed expedient by said Board of Regents.

SEC. 17. No sectarian tenets or opinions shall be required to enable any persons to be admitted as a student or employed as a tutor or other instructor in said University, but the same shall be forever non-sectarian in character. * * *

When the bill became a law, Governor L. Bradford Prince, then New Mexico's chief executive, appointed the following Board of Regents: G. W. Mylert, Henry L. Waldo, Mariano S. Otero, Elias S. Stover, Frank W. Clancy.

The Governor and the Superintendent of Public Instruction, then Amado Chaves, were ex-officio members of the Board.

The Regents who have continued in office from the beginning are E. S. Stover and F. W. Clancy. Others whose names have appeared since are, W. B. Childers, J. H. Wroth, J. C. Armijo, E. V. Chaves, H. L. Waldo, Fletcher Cook, A. M. Mandalari, W. D. McBee, and W. J. Johnson.

The first faculty elected consisted of: President, E. S. Stover; Principal, George S. Ramsay; Alcinda L. Morrow, Marshall R. Gaines, Albert Cristy, G. R. Stuoffer and Andrew Groh.

Many changes have since occurred in the faculty. Prof. Hiram Hadley was vice-president in charge from 1894 to 1897. Dr. C. L. Herrick, the second president of the institution, served from 1897 to 1901. The third president, Dr. W. G. Tight, served from 1901 till 1909. Upon his resignation, Dr. E. D. McQueen Gray was elected by the Board of Regents.

After the passage of the act creating the University, the Board of Regents secured the stipulated amount of land, and the erection of a suitable building was begun as soon as the requisite funds were available. The structure was completed and accepted by the Board in May, 1892.

The Normal School of the University was the first department organized, and was opened on June 15, 1892, for a summer term. In September of the same year the Preparatory School was opened, and the Commercial School was added in November, 1893.

In 1896 a gymnasium was erected and equipped.

The Hadley Laboratory, largely the gift of Mrs. Walter C. Hadley, supplemented by donations from friends of the institution in Albuquerque and other parts of the Territory, was erected in 1899.

The administration of Dr. Tight was marked by definite advance in all departments of the University. In 1902, a start was made in providing accommodation for resident students, rooms for men being fitted up in the Administration Building, and a cottage on the campus arranged as a girls' dormitory. In 1904, the men's quarters were moved to a separate building in

the neighborhood of the campus. In 1906, two dormitories, constructed in the Pueblo Indian style of architecture, were erected along the eastern border of the campus. The cottage then became the Dining Hall, and by means of an addition in the summer of 1908 was rendered capable of meeting the requirements of the increasing number of students.

In 1908, the Administration Building was entirely remodeled, and another building added, to serve as a lecture, concert and assembly hall, to the north of the Administration Building. To this new building the name of Rodey Hall was given in recognition of the valuable services rendered by Delegate Rodey to the University.

With the beginning of the academic year 1909-10, several important changes in the administration and operation of the University came into effect. 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, Dean of the College of Science and Engineering, Dean of Women, and Principal of the Preparatory School, were created; and the office of Proctor of the Men's Dormitory was placed upon a permanent basis. The distinction between the Preparatory School and the University proper was rendered definite, and separate study and assembly rooms were assigned to this branch of the Institution; the classes of the Preparatory School were reduced to three, and the completion of the ninth grade of an accredited High School (or the equivalent thereof) was fixed as the minimum requirement for entrance to the School; some addition was made to the list of prescribed studies in the College; and a systematic effort

was made to provide employment, by means of a Bureau of Student Appointments, for all needy students. In general, the object of the changes has been: (1) to raise the standard of entrance, both to the Preparatory School and to the University; (2) to distinguish more definitely than heretofore between the literary and scientific branches of college training; and (3) to bring the University into more direct contact with the High Schools of the Territory.

On May 23rd, 1910, the College of Science and Engineering, known as Hadley Hall, the largest and oldest building, next to the Administration Building, on the campus, was completely destroyed by fire. In addition to the Scientific and Engineering equipment the College housed the Hadley Climatological Laboratory and the Botanical and Geological collections and the Ethnological Museum. The loss to the University and to the Territory in general was severe, especially as a large portion of the collections consisted of specimens that could not be replaced; and the destruction of the museum representative of the primitive races of the region being particularly regrettable.

Steps were at once taken to provide without loss of time a building which would meet the immediate needs of the Scientific Departments, and the present College of Science and Engineering, a one-story structure consisting mainly of concrete, was erected and equipped before the end of the year. During its erection temporary quarters were provided for the Science Courses in the Gymnasium and the Administration Building. In the new Science Building are located a drafting room, a physical laboratory, an electrical testing room, a dark room, a machine shop, a biological laboratory, a geological laboratory, a lecture room, a chemical

laboratory and an assay room, together with the usual offices, stock-rooms, balance rooms, etc.

In the year 1910-11 a School of Music was initiated and placed under the charge of a director from the Royal Lyceum of Singing of Naples, Italy. Complete courses in vocal music, and finishing courses in instrumental (piano) music, were offered, and regular chorus work under the title of the U. N. M. Glee Club, was maintained.

In the Spring Semester of 1911 the University initiated an Extension Lecture Course of seven weekly lectures given in the City Library, to which the public were invited. These lectures were well attended, with the result that the Extension System will henceforth form a part of the academic programme. A short Extension Course was given towards the end of the Academic Year in the city of Santa Fe. A Summer School Session of six weeks has been announced for the Summer of the present year.

The same year 1910-11 marked the termination of the Preparatory School. Henceforth it will be replaced by a College Preparatory Department consisting of two sub-freshman classes, A and B, two years of High School work being the minimum requirement of admission to the Division. This change indicates another advance and coordinates more efficiently the work of the University.

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 admitting that the south-eastern 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 centre 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 Territory.

Albuquerque lies on the main line of the Atchison, Topeka and 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 south-eastern 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 centre 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 east of the city, and about a mile distant from it, stands the University, overlooking with its seven buildings the wide valley of the Rio Grande. The free, pure air of the mesa, bracing and invigorating, surrounds the spot, and lassitude and depression are unknown in this buoyant and refreshing atmosphere. The walk to and from the city is a healthful exercise; and an omnibus plies twice daily between the University and the town for the convenience of those who choose to avail themselves of this means of conveyance.

Extremes of temperature, whether of heat or cold, which not infrequently impede the progress of educational work in other localities, are unknown in this section of New Mexico. Owing to this fortunate circumstance, all the varied activities of college life, the work and play together, pursue the even tenor of their way throughout the academic year, unhindered by stress of weather. This boon of climate has proved an important factor in the growth of the institution; and while the University authorities wisely refuse to receive students suffering from pulmonary or other organic diseases, yet many of our less vigorous youths, for whom a continued course of study would be dangerous or even impossible in a less favored region, have come from time to time from distant States to the University on the Rio Grande, and there gained health and strength while pursuing their studies and completing their education.

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 well-graded streets, concrete sidewalks everywhere, electric lights, a system of tram-cars, important mercantile and manufacturing establishments, two daily newspapers, and other concomitants of modern civilization.

It is also an educational centre, possessing in addition to the University many schools of various kinds; while the public school system of the city may compare favorably with those of much larger eastern towns.

It is also a city of churches, all the leading religious denominations being efficiently represented; and the members of all the 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 organization with which their families are connected; while a daily chapel service, to which all students are invited, is held in Rodey Hall every morning during the academic year.

A weekly General Assembly at which the attendance of the whole student body is required, is also held in Rodey Hall. At this Assembly addresses are delivered on various topics of interest by the members of the faculty and by visitors to the University and the city. Opportunity is thus afforded to the students to hear many eminent speakers. Short lecture courses on special subjects are sometimes arranged in connection with the General Assembly period.

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 follow in almost unbroken succession throughout the year. The advantage to the young student of association and environment of this kind, can hardly be over-estimated.

In general, the aim of the University is to develop true scholarship and to maintain a high standard of thought and conduct; and the authorities of the institution believe that by regarding these requisites as the prime essentials of a university education, towards the promotion of which all academic effort must contribute, they will best fulfill their duty to the institution and to the Territory.

The Library

The University library contains about 8,000 volumes, exclusive of unbound pamphlets and duplicates. This 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 amount of valuable scientific literature. There are now more than one hundred societies and universities on the exchange list.

The University is one of the United States depositories for public documents. Many valuable reference books are received from this source. These books 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 library is open every day except Saturday and Sunday from 9:00 a. m. to 5:00 p. m.

In addition to complimentary periodicals and exchanges, the following periodicals are subscribed for:

- American city
- American college
- American education
- American educational review
- American journal of philology
- American journal of sociology
- American magazine
- American naturalist
- American review of reviews
- Annals of mathematics
- Atlantic monthly
- Biblical world

Book news monthly
Bookman
Botanical gazette
Bulletin of the American mathematical society
Century
Chemical abstracts
Classical Journal
Classical review
Cumulative book index
Current literature
Dial
Economic geology
Editor
Educational foundations
Electrical world
Engineering magazine
Etude
Harper's monthly
Industrial magazine
Journal of accountancy
Journal of American chemical society
Journal of American history
Journal of American medical association
Journal of economic entomology
Journal of geology
Journal of industrial & engineering chemistry
Library journal
Literary digest
McClure's magazine
Machinery
Musical courier
Musician
Nation
New York times book review

North American review
 Out West
 Outlook
 Pedagogical seminary
 Philosophical magazine
 Physical review
 Plant world
 Popular educator
 Popular science monthly
 Power
 Primary education
 Public libraries
 Reader's guide to periodical literature
 Records of the past
 Science
 Science abstracts—Physics
 Scientific American
 Scientific American supplement
 Technical world magazine
 Theatre
 Ueber land und meer
 World's work

Bulletins of the University of New Mexico

TABLE OF CONTENTS

Catalogue Series

		Whole No.
v. 1	Catalogue 1892	1
v. 2	" 1892-93	2
v. 3	" 1893-94	3

	Whole No.
v. 4 Catalogue 1894-95	4
v. 5 " 1895-96	5
v. 6 " 1896-97	6
v. 7 " 1897-98	7
v. 8 " 1898-99	8
v. 9 " 1899-1900	9
v. 10 " 1900-01	10
v. 11 Circular of information 1902	11
v. 12 Catalogue 1902-03	12
v. 13 " 1903-04	13
v. 14 " 1904-05	14
v. 15 " 1905-06	40
v. 16 " 1906-07	43
v. 17 " 1907-08	46
v. 17 pt. 2 Supplement	48
v. 18 Catalogue 1908-09	50
v. 19 Circular of Information	54
v. 20 Catalogue 1909-10	55
v. 21 Circular of Information 1910	56
v. 22 Summer School Bulletin 1911	59

Biological Series

v. 1 (Bound with Geological Series v. 1).	
No. 1. Herrick Physiological corollaries of the equilibrium theory of nervous action and control	15
No. 2. Herrick & Coghill Somatic equilibrium and the nerve endings in the skin	16
No. 3. Cockerell Tables for the determination of New Mexico bees	19
No. 4. Herrick and other Notes on a collection of lizards from New Mexico	22

	Whole No.
v. 2 No. 1. Weinzirl Bacterial flora of the semi-desert region of New Mexico	29
No. 2. Maltby & Weinzirl some obser- vations on the lung capacity of young people living in New Mexico	30
No. 3. Weinzirl Effect of altitude upon the blood	31
No. 4. Magnusson Observations on soil moisture in New Mexico from the hygienic viewpoint	32
No. 5. Magnusson Meteorological ta- bles	33
No. 6. Weinzirl Availability of New Mexico's climate for outdoor life	34
No. 7. Birtwell Observations on color- changes in the genus <i>Buttueo</i>	35
No. 8. Weinzirl Cold as a causal fac- tor in the blood-changes due to high altitude	36
No. 9. Weinzirl & Magnusson Further observations on increased blood counts due to high altitude	37
No. 10. Weinzirl Evaporation from water surface at Albuquerque, New Mexico	38
No. 11. Weinzirl Potable waters of New Mexico	39
No. 12. Weinzirl Action of sunlight upon bacteria	44
No. 13. Weinzirl Action of a high dry climate in the cure of tuberculosis	47

	Whole No.
v. 3 No. 1. Watson Manual of the more common flowering plants growing without cultivation in Bernalillo County, New Mexico	49

Geological Series

v. 1 (Bound with Biological Series v. 1).	
No. 1. Herrick Geology of the en- vironments of Albuquerque, New Mexico	17
No. 2. Herrick Occurrence of Copper and lead in the San Andreas and Ca- ballo Mountains	18
No. 3. Herrick Papers on the geology of New Mexico	20
No. 4. Herrick Geology of the San Pedro and the Albuquerque districts	21
v. 2 Pt. 1.	
No. 1. Herrick & Johnson Geology of the Albuquerque sheet	23
No. 2. Herrick Miscellaneous econo- mic papers	24
No. 3. Herrick Report of a geological reconnaissance in western Socorro and Valencia Counties, New Mexico	25
No. 4. Herrick Geology of the white sands of New Mexico	26
No. 5. Herrick & Bendrat Identifica- tion of an Ohio coal measures horizon in New Mexico	27
No. 6. Clark Cyanide process in New Mexico	28

	Whole No.
v. 2 Pt. 2 Johnson Geology of the Cerillos hills, New Mexico	28a
v. 3 No. 1. Bryan Geology of the vicinity of Albuquerque	51

Educational Series

v. 1 No. 1. Hodgkin Early school laws of New Mexico	41
No. 2. Richards Management of our school lands	42
No. 3. Hodgkin Study of spoken lan- guage	52
No. 4. Gray Latin in the secondary school	58

Language Series

v. 1 No. 1. Espinosa Los Comanches	45
No. 2. Espinosa Studies in New Mexi- can Spanish	53

Unclassified

Fergusson & Clancy Making of a con- stitution	57
--	----

University Extension Work

The University, as a territorial institution, desires to be of service to the general body of citizens and to develop its extension work as much as possible. Extension courses in connection with the University may be taken without registration on payment of a small fee. The courses already offered will be found in the

lists of courses of the College of Science and Engineering.

In connection with the Extension Work of the Institution a series of University Lectures has been planned which may be offered either singly or in courses in any of the towns of the Territory, the expense of the lectures being borne partly by the University and partly by the locality applying for them. The subjects of the Courses cover the general field of Literature and Science as presented in the regular courses of the University and with special application to the practical needs of the localities.

Application for University Extension Lectures should be made to the Secretary of the Extension Lecture Course.

The members of the University faculty hold themselves ready to respond to calls for lectures before institutes, clubs and assemblies, whenever such work does not interfere with the regular work of the institution. Calls for such work should be addressed to the Registrar.

The Summer School

The first Summer Session of the University will open on the 5th of June, 1911, and last for six weeks, terminating July 14th. In instituting the Summer School, the University plans to fulfill a double purpose; to offer class and individual instruction in various branches of education and also to present to teachers in the High Schools and to others who are intending to enter the teaching profession demonstration courses dealing with the main subjects offered in a High School. It is believed that these demonstration courses will be found valuable to teachers in general and in

particular to those whose study of the subjects has been necessarily somewhat limited in scope.

The work of the Summer School is equivalent in method, character and credit value to that of the academic year. Teachers who would otherwise be required to attend an Institute session are excused from doing so if they attend the Summer School.

There are no formal requirements for admission to the Summer school and its courses are open to all students who can pursue them to advantage. Students of the Summer School who are not matriculated at the University will upon request receive certificates of attendance and of work satisfactorily performed. Students desiring to pursue special courses of work during the session of the School will be permitted to do so if recommended by the head of the Department.

The principal subjects offered during the Summer School year of 1911 are, Latin, Greek, French, German, Ancient History, Mediaeval and Modern History, English Literature (four divisions), Physics, Zoology, Physiography, Chemistry, Algebra, Geometry, Vocal and Instrumental Music.

Graduate Students

Graduates of Colleges and Universities of recognized standing, desirous of pursuing a course of work leading to the higher degrees in Letters and Arts or in Science, are received at the University of New Mexico on the same terms as at other Universities. Special facilities will be given, to the extent of the resources of the University, for individual research work. Application should be made to the Chairman of the Committee on Graduate Studies.

*University Examinations for Students of High Schools and
Preparatory Students*

Beginning with the year 1910-11, the University will offer yearly examinations to students of the High Schools and preparatory Schools of the Territory.

Two classes of examinations will be offered, named Junior and Senior respectively. Students in the second year of the High School course will be eligible for the Junior Examination; but only those students who are in the fourth year of High School may enter for the Senior examination.

The examination for both the Senior and Junior examinations will be based upon the course of study for the year, as recommended by the University; and will be held locally, either in the High School or some other suitable place, under the supervision of a duly appointed representative of the University. Candidates will be known by number only. After identification, the names of the successful candidates, arranged in order of merit, will be sent to the High School authorities and published in the leading newspapers of the Territory.

All successful candidates will receive certificates from the University. Those who acquit themselves with distinction in any subject will receive honours in that subject. Those who gain honours in not less than three subjects will receive an Honour Certificate. No candidate may enter for for less than three or more than five subjects at the same examination.

Full particulars with respect to the conditions of entrance, courses of study, text-books, etc., will be found in the Syllabus of the Local Examinations for High Schools, which may be obtained on application from the Registrar of the University.

Degrees, Diplomas and Certificates

College of Letters and Arts. Upon the recommendation of the President of the University and the Faculty of the College, the degree of Bachelor of Arts is conferred by the University upon those undergraduate students who have completed at this institution not less than the last year of a four years' college course in accordance with the requirements and regulations of the University.

College of Science and Engineering. Subject to similar conditions, the degree of Bachelor of Science is conferred by the University upon the recommendation of the President of the University and of the Faculty of the College.

Educational Degree, Diploma, Etc. The following are granted upon the recommendation of the President of the University and the Head of the School of Education:

I. The Degree of Bachelor of Pedagogy. Conferred upon those undergraduate students who hold a diploma for a complete course in the art and practice of teaching, entitling the holder to a professional certificate from a State or Territorial Board of Education, and who have completed at this institution not less than the last year of a three years' college course in accordance with the requirements and regulations of the University.

II. The Teacher's Diploma. Conferred upon students of the School of Education who have completed the curriculum of the School in accordance with the requirements and regulations of the University.

III. Collegiate Certificates. Granted to holders of Teachers' Diplomas who are taking regular college courses. The certificates are of two grades, first and

second, and are granted after the completion of the freshman and sophomore years respectively.

Commercial Department. Upon the recommendation of the President of the University and the Principal of the Commercial Department, a diploma is granted to those students of the Commercial Department who have completed the course offered in accordance with the requirements and regulations of the University.

College Preparatory Department. Students enrolled in either of the Sub Freshman classes who complete the prescribed course of work, will be provided, if they so desire, with certificates for work satisfactorily performed.

Committees

The Student Standing Committee decides all matters relating to the classification of students, value of credits presented from other institutions, and all requests for other than the regular amount of work must be approved by this committee.

The Schedule and Curriculum Committee has supervision of the schedule, considers and makes recommendations to the faculty concerning all changes in the curriculum.

The Discipline Committee, to whom all students are responsible for misconduct or neglect of their duty, whether in the class room or outside, may ask the withdrawal of any student, who does not appear to be benefited by the advantages offered at the University, or manifests any unwillingness to assist in maintaining good order, or indulges in practices which are detrimental to others or to the reputation of the college.

The Athletic Committee has supervision over all

athletics in the University; one member acting as manager and another as secretary and treasurer. All correspondence in relation to athletic contests should be addressed to this manager.

The Rhodes Scholarship Committee takes charge of the examinations open to candidates in this Territory for the Rhodes Scholarships at Oxford. - All students desiring information should correspond with the chairman.

The Student Employment Committee has for its aim the aiding of needy students, who are seeking a living while attending college. Work is distributed among those students, to the full extent of University requirements and many positions are filled outside. Students wishing to benefit by this aid or persons desiring to have work done by them should correspond with the chairman of this committee.

The Campus Committee has supervision over all improvements or changes on the campus, and co-operates with the Student Employment Committee in furnishing labor to students.

The Student Functions Committee has charge of all social activities, engaged in under the auspices and in the name of the University. It authorizes dates, places and chaperons, and exercises a general supervision over banquets, picnics, dances, etc., held by the student body as a whole, or by classes.

The purpose of this committee is to prevent a too frequent indulgence in amusements to the detriment of scholastic standing, and to see that the character of student functions be in keeping with the standards and dignity of the institution.

Student Organizations

Voluntary literary societies, the Khiva for men, and the Estrella for the women, have proved very useful in affording opportunities for the cultivation of literary tastes, and for familiarizing the students with parliamentary principals. The spirit of wholesome competition and rivalry lends interest to the efforts of the members of these societies. There are also two fraternities and a sorority. The Tennis Club has two splendid courts and numbers forty members. The Editorial Boards of the U. N. M. Weekly and the Mirage offer the students opportunity for the practice of energy and enterprise. In Dramatics, a strong organization stages two plays annually. The students of the Engineering Department are organized in the University of New Mexico Society of Engineers. The Oratorical and Debating Association arranges for contests in public speaking and class and intercollegiate debates. All these societies are subordinate to a general Student Body Organization, which insures the careful management of each, acting with the Student Functions Committee of the Faculty. The Thursday Assembly period each week is devoted entirely to student enterprises.

Alumni Association

The University of New Mexico Alumni Association was organized in 1894. Its purposes are to aid in promoting the interests of the University of New Mexico and to cultivate sociability and good fellowship among its members. The annual meeting and annual dinner occur at the University during Commencement week. At this annual meeting all officers of the association are chosen.

Prizes and Scholarships

The "American Oratory" Declamation Contest. This contest, the object of which is to encourage an interest in the great American orations, was instituted by Dr. L. H. Chamberlin. He offers valuable book prizes in connection with the competition.

The E. S. Stover Prizes. The work in the shop and the manual training department has been stimulated through the interest of Hon. E. S. Stover, one of the Regents of the University, who offers prizes which aggregate \$20 for special merit in this department.

The D. A. Macpherson Prizes. Money prizes amounting to \$30.00 were offered in 1911 by Mr. D. A. Macpherson to be divided among the successful candidates for the University Essay Prizes.

University Prizes

Four English essay prizes were offered for competition in 1911. The prizes consisted of valuable books bound in calf, stamped with the arms of the University in gold upon the cover. The subjects for 1911 were:

College of Letters and Arts: "The Advantage to the United States of Reciprocity With Canada." Two prizes offered.

College of Science and Engineering: "Science's Greatest Gift to the Industries Within the Last Forty Years." Two prizes offered.

The Cecil Rhodes Scholarship

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.

Registration

The student upon entering presents himself to the treasurer at the office, for the payment of matriculation, tuition, and other fees, and receives a matriculation card, after which he secures from the Registrar the necessary blanks for registration. He then goes to the instructors under whom he is to take work, for their signatures to his schedule card. This card he files with the Registrar, and so completes his registration. No student is considered a member of the University until his registration is fully completed, and unless this is done within five days after the opening of the semester an extra fee is charged.

Attendance

It is highly desirable that students should begin their work with the first day of the semester as indicated in the calendar, since losses which are incurred then can never be fully made up and the student is at a disadvantage throughout the year. Students may be admitted at any time, but it is strongly recommended that studies begin with the fall semester. This is considered so important that the Regents have fixed a fee for late registration. Every student in the preparatory department, unless excused by the Student Standing Committee, is required to attend four recitations or

laboratory exercises daily. Parents or guardians who desire information concerning the conduct, class standing, or punctuality of the student, can obtain the same at any time by application to the Registrar, as a careful record is kept of the work and character of each student. Such a report will be regularly sent at the end of each semester.

Any student who falls behind in his work will be reported to his parents or guardian, at the end of each month, and should such failure to do good work be the result of idleness or misconduct on the part of the student, the parents may be asked to withdraw him.

Absences

After registration, students are required to attend their classes regularly, and are responsible for absences to the instructor in charge, who may, if he see fit, report them to the Discipline Committee. Serious irregularity will render a student liable to dismissal. Absences amounting to twenty per cent from any class debar a student from receiving a passing grade in that class, except by special examination. For absence from Assembly and other general exercises, the student is accountable to the Discipline Committee.

Change of Courses

Students may not drop any study for which they are registered without permission from the Instructor and the Registrar.

Dismissal

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

Method of Grading

Students are graded according to their class standing and by examination. An accurate record is kept of their work and examinations are held at the end of each semester. Students making a grade of 90-100 are marked A; 80-90, B; 70-80, C; 60-70, D; below 60, E. The following restrictions apply to sub-freshman students making a grade lower than A. Students making a B grade are limited to two functions or enterprises per semester outside of class work and C students to one such function; those making a grade lower than C may not take part in any function such as athletics, dramatics, etc., until the work is brought up; sub-freshman students may not enter into more than three outside functions per semester. College students making B in fifteen hours of credit will have one hour added to the total required for graduation for each fifteen hours of such credit and C students will have one hour added for each seven hours of C work. In college no substitution may be made for failures or conditions towards graduation.

When a student's general standing in any class falls below seventy, the instructor shall report the student to the Registrar as "conditioned". A student reported as "conditioned" may receive credit for the study if the condition imposed by the instructor is removed by the date indicated in the calendar. Conditions must be removed by special examination and payment of the usual fee. Otherwise the student must again pursue the study in the regular class in the same manner as the student whose study is reported as "not passed".

Special examinations, taken at other times than regularly with the class, and not entrance examinations or examinations for advanced standing, can be

taken only by presenting to the examiner a permit card from the Registrar and by the payment of a special fee of \$2.00.

Class Standing

To obtain class standing at entrance, or to maintain class standing during the prosecution of a course, the student's condition must not exceed one-third of the work required for that class. The Committee on Student Standing has charge of all matters pertaining to entrance, amount of work, class standing, and graduation credits.

Tuition, Fees, Boarding Expenses, Etc.

Registration Fee.

An annual registration fee of Five Dollars; also a fee of One Dollar for the Library and Gymnasium. Payment of these fees admits residents of the Territory of New Mexico and their families to all the courses offered at the University; to non-residents a Tuition Fee of Ten Dollars per semester is charged.

Special Fees.

At the beginning of the academic year (or on registration) a deposit of Ten Dollars, to cover possible breakage or damage to University property, is required from each student; said sum (or the remainder thereof after deduction) being returnable to the student at the end of the term.

All students presenting themselves for registration later than the fifth day of the semester pay a fee of One Dollar for late registration.

All students who take laboratory, field or shop courses pay a fee of One Dollar per "semester hour" of credit.

Board and Lodging.

Quarters for resident students are provided in two two-story brick buildings, constructed in the Pueblo style, and named respectively the Kwataka (for men) and the Hokona (for women). The dormitories are divided into suites, each consisting of two bedrooms and a sitting room. Two students occupy a suite. The rooms are furnished, and electric light is provided, but the students supply their own bed-linen, towels, etc., and pay their own laundry bills. The Kwataka is in charge of the Proctor; the Hokona is supervised by the Dean of Women, who has the general oversight of all women students. Meals are taken in the Dining Hall, which is in a separate building.

The charge for board and lodging is Twenty Dollars per month, or Ninety Dollars per semester. Except in the case of Indigent Students appointed to Territorial Scholarships, the board bills must be settled monthly.

Meals for Non-Resident Students.

Meals are furnished in the Dining Hall to non-resident students at the rate of Twenty-five Cents per meal; and luncheon is also provided at the lunch-counter at the mid-day meal on the cafeteria plan, the charge being five cents per portion.

Self-Supporting Students.

The University recognizes a definite duty toward the needy student seeking to earn his living while attending college; and a Bureau of Appointments has been established for the purpose of distributing work among such students, to the full extent of the University requirements. All applications for student employment must be made to this Bureau. Hitherto, the

Bureau of Appointments has been able to furnish sufficient work to all applicants.

The Bureau of Appointments makes the tenure of a student appointment conditional upon the holder averaging a grade not lower than B in his studies, according to the monthly report of the instructors.

University Calendar

1911.

Jan. 30, Monday,	Second Semester begins.
Feb. 22, Wednesday,	Washington's Birthday.
Mch. 24, By Proclamation,	Arbor Day.
Mch. 31, Friday,	Latest date for removing "conditions" of previous semester.
Apr. 14, Friday,	Mid-semester.
May 23, Tuesday,	Senior Examinations close.
May 26, Friday,	General Examinations close.
May 28, Sunday,	Commencement Week be- gins. Baccalaureate Ser- mon.
May 29, Monday,	University Cantata.
May 30, Tuesday,	University Play.
May 31, Wednesday,	Preparatory Graduation.
June 1, Thursday,	Class Day.
	Conferring of Degrees.
	Commencement ends.
June 3, Saturday,	Summer School Registra- tion Day.
June 5, Monday,	Summer School begins.
July 4, Tuesday,	Independence day.
July 14, Friday,	Summer School ends.

The Academic Year 1911-12

1911.

Sept. 11, Monday,	Registration Day.
	First Semester begins.

Sept. 15, Friday,	Latest date for removing "conditions" of previous semester.
Nov. 23, Thursday,	Thanksgiving Day.
Dec. 16, Saturday,	Christmas Recess begins.
1912	
Jan. 2, Tuesday,	Work resumed in all De- partments.
Jan. 26, Friday,	First Semester closes.
Jan. 29, Monday,	Registration Day.
Feb. 22, Thursday,	Second Semester begins.
Mch. —, Friday,	Washington's Birthday.
Mch. 29, Friday,	Arbor Day (by Gov- ernor's Proclamation).
Apr. 5, Friday,	Latest date for removing "conditions" of previous semester.
May 21, Tuesday,	Mid-Semester.
May 24, Friday,	Senior Examinations close.
May 26, Sunday,	General Examinations close.
May 27, Monday,	Commencement Week be- gins. Baccalaureate Ser- mon.
May 28, Tuesday,	University Cantata.
May 29, Wednesday,	University Play.
June 1, Saturday,	Class Day.
June 3, Monday,	Conferring of Degrees.
July 26, Friday,	Commencement ends.
	Summer School Registra- tion Day.
	Summer School opens.
	Summer School closes.

Departments

Within the University are comprised :

- I. THE COLLEGE OF LETTERS AND ARTS.
- II. THE COLLEGE OF SCIENCE AND ENGINEERING.
- III. THE SCHOOL OF EDUCATION.
- IV. THE COMMERCIAL DEPARTMENT.

The Choice of a College Course

The student who enters college with the intention of deriving the utmost possible advantage from the opportunities offered at the institution of his choice, will approach the question of the selection of his studies with a more or less definite conception of the final purpose of his collegiate career. For, unless he chooses his subjects of study, even at the beginning of his freshman year, in accordance with a coherent plan which shall reach its full development only at the end of his undergraduate course, he is not merely liable to lose the immediate benefit accruing from those early studies when pursued as designed preparation for the work of the junior and senior years, but is exposed to the far more serious misfortune of acquiring during the formative years of adolescence, a habit of desultory and disconnected work which will in all likelihood hinder his advance in special study, and may even prove a serious impediment in the way of final success in life.

With the view of providing, as far as possible, against the commission of such an error, the work of the last two years of the College Preparatory Department has been so arranged as to assist the pupil in the proper development of his mental powers in their natural direction; with the not unreasonable expectation that at the end of his preparatory course, he will

have arrived at a fairly definite conclusion as to the career he proposes to adopt or the profession he desires to follow.

In order to encourage the college student, in the pursuit of a definite plan, the College of Letters and Arts offers for selection several distinct courses, taken from the general list of subjects offered in the different years and combined for the purpose of furthering the prosecution of a coherent scheme of college work, leading to a conclusion indicated at the outset. At present four such courses are offered, leading to special degrees in Arts.

The courses leading to the special degrees in Arts are defined as follows:

Course A. Leading to the degree of B. A. in Classics and requiring, inter alia, the study of the Greek and Latin languages and literature throughout the course.

Course B. Leading to the degree of B. A. in Modern languages, and requiring, inter alia, the study of at least two modern languages together with the literature thereof, throughout the course.

Course C. Leading to the degree of B. A. in Modern History, and requiring the pursuit of the study of Modern History, with at least one modern language, throughout the course.

Course D. Leading to the degree of B. A. in Literature, and requiring the study of literature in general, together with special periods as defined, and at least one modern language, throughout the course.

The selection of a course of study thus systematically arranged, and leading to the acquisition of a specially connoted degree, achieves two valuable results; it secures for the student special training from the outset

along his chosen line of study, and it attaches a distinctive value to the degree itself. A bachelor's degree in classics will stand for something more than a general knowledge of Greek and Latin; the degree in Modern History will mean that the holder thereof has made that subject his particular study throughout his college course; and so on with respect to the other special degrees. The additional value conferred upon the degrees by such a connotation is easily perceived.

Moreover, in none of these special courses is the central idea allowed to predominate to the extent of preventing the acquisition of that liberal culture in general which a college of liberal arts is expected to foster; it is conceded that in order to know one subject well, an acquaintance with many other subjects is requisite; and an examination of the manner in which the studies of the special courses are combined will show that the interdependence of the various branches of knowledge receives adequate recognition.

College Entrance Requirements

The entrance requirements for the Colleges of the University cover three qualifications of age, character and education, as follows:

- i. Age. Not under sixteen years.
- ii. Character. Certificate of honorable dismissal from the institution previously attended.
- iii. Education. Four years of High School work, covering fifteen school units as a minimum; or an equivalent examination, to be tested by examination.

The term "school unit" signifies a course of five recitations per week, carried on during a school year of thirty-six weeks, each recitation covering not less than forty-five minutes.

Of the fifteen units required for entrance, thirteen are made up as follows:

- I. English, four years; including the College Entrance requirements in English: 4 units.
 - II. History, two years; including ancient, mediaeval and Modern History: 2 units.
 - III. Language, two years in one of the following languages: Greek, Latin, French, German, Spanish: 2 units.
 - IV. Mathematics, three years; including School Algebra, Plane and Solid Geometry, Elementary Trigonometry and Conic Sections: 3 units.
 - V. Science, two years; including one year of Physics: 2 units.
- Total of prescribed subjects, 13 units.

The two remaining subjects may be offered from any of the subjects included in the High School curriculum, but the student will do wisely to make them conform as far as possible with the requirements of the College he designs to enter. Thus:

Students purposing to enter the College of Letters and Arts are advised to offer, if possible, four years in language. Candidates for special degrees must offer four years in Latin.

Students purposing to enter the College of Science and Engineering are advised to offer two years in German in any case. Latin and French are also recommended.

In view of the effect upon his career, students will do well to plan their course of studies in the High School in accordance with the work they expect to take in college. Much time, otherwise frequently wasted, will be judiciously spent through an appropriate selection of high school work during the last two years.

College of Letters and Arts

Faculty

E. D. McQUEEN GRAY, M. A., Ph. D., *Professor of History.*

ETHEL A. HICKEY, B. A., *Associate Professor of English.*

WARREN I. MOORE, A. M., *Associate Professor of Classics.*

LEON B. STEPHAN, A. B., *Assistant Professor of German.*

HELENA EGYPTIADES, *Director Department of Music and Instructor in Italian.*

ANITA THOMAS, *Instructor in Spanish.*

MENDEL SILBER, B. A., M. D., *Acting Instructor in English.*

MARC BOUNIMOVITCH, M. A., *Instructor in French.*

ERNA FERGUSSON, *Student Assistant in College History.*

ALICE CAROLINE SCHREIBER, B. A., *Student Assistant in Preparatory History.*

College of Letters and Arts

Definition of the Undergraduate Course

The undergraduate course in the College of Letters and Arts consists of eight semesters of eighteen weeks each, amounting to one hundred and twenty-four semester hours, and the required two units of Public Speaking as the minimum necessary for graduation.

The semester hours are distributed as follows: Freshman Year, two semesters of 16 hours each. Sophomore Year, two semesters of 16 hours each. Junior Year, two semesters of 15 hours each. Senior Year, two semesters of 15 hours each.

A "semester hour" is defined as consisting of one "period" or conventional "recitation hour" of not less than forty-five minutes, or its equivalent of three "hours" of laboratory, field or shop work, per week during one semester.

Prescribed and Elective Work

The proportion of prescribed to elective work in the Freshman and Sophomore years is as follows:

Freshman Year. Prescribed, 22 hours; elective, 10 hours.

Sophomore Year. Prescribed, 12 hours; elective, 20 hours.

Junior and Senior Years. No general assignment of work is made. Candidates for special degrees are referred to the directions appended to the general lists of subjects. Students who do not take a special course will select their subjects in consultation with the head of the school or department in which the major is taken.

Election of Science Subjects

Students enrolled in the College of Letters and Arts are permitted to elect any of the subjects offered in the College of Science and Engineering, subject to the approval of the Schedule and Curriculum Committee.

Baccalaureate Thesis

All candidates for the bachelor's degree may be required to prepare a graduating thesis upon a subject chosen by the Head of the Department in which their major work is being taken. If approved by the head of the department it is submitted by the student as part of his qualifications for a degree. Theses must be typewritten on good paper and if accepted, become the property of the University and, with a fee for binding, must be deposited with the Librarian.

General Lists of Subjects

Freshman Year. 16 hours per semester, of which 11 are taken in prescribed and 5 in elective subjects.

Prescribed Subjects for the Freshman Year.

English Composition, 3 hours per semester.

Latin, 4 hours per semester.

Modern Language, 4 hours per semester.

Total of prescribed hours for the year, 22.

A student who does not intend to proceed to a special degree may, with the approval of the President and the Dean of his College, substitute another subject for Latin.

Candidates for any of the special degrees except for that in Course A (Classics), who present a four years' High School Course (or the equivalent thereof) in Latin, may substitute a modern language for Latin.

Elective Subjects of the Freshman Year

FULL COURSES

- | | |
|--------------------------|--------|
| 1. Greek (Gr. 1 and 2) | 4 hrs. |
| 2. Latin (Lat. 1 and 2) | 4 hrs. |
| 3. French (Fr. 1 and 2) | 4 hrs. |
| 4. German (Ger. 1 and 2) | 4 hrs. |
| 5. Spanish (Sp. 1 and 2) | 4 hrs. |

HALF COURSES

First Semester.

- | | |
|---|--------|
| 6. English History of the 16th and 17th Centuries (Hist. 1) | 4 hrs. |
| 7. General Course in English Literature (Lit. 1) | 2 hrs. |
| 8. Roman Life and Thought (Hist. 13) | 2 hrs. |

Second Semester.

- | | |
|--|--------|
| 9. Historical Structure and Development of the English Language (Lit. 2) | 2 hrs. |
| 10. English History of the 18th Century (Hist. 2) | 4 hrs. |
| 11. Greek Life and Thought (Hist. 14) | 2 hrs. |

Requirements for the Special Courses

Course A (Classics). Subject 1 required.

Course B (Modern Languages). Subject 3 required.

Course C (Modern History). Subjects 6 and 10 required.

Course D (Literature). Subjects 7 and 9, and either 8 or 11 required.

Sophomore Year. 16 hours per semester, of which 6 are taken in "required" and 10 in "elective" subjects.

Required Subjects of the Sophomore Year

Modern Language,	4 hrs.
Logic,	2 hrs.

Elective Subjects of the Sophomore Year

FULL COURSES

- | | |
|--|--------|
| 12. Greek (Gr. 3 and 4) | 4 hrs. |
| 13. Latin (Lat. 3 and 4) | 4 hrs. |
| 14. French (Fr. 3 and 4) | 4 hrs. |
| 15. German (Ger. 3 and 4) | 4 hrs. |
| 16. Spanish (Sp. 3 and 4) | 4 hrs. |
| 17. General Course in French Literature (Fr. Lit. 1) | 2 hrs. |

HALF COURSES

First Semester

- | | |
|--|--------|
| 18. English Literature of the 16th and 17th Centuries (Lit. 3) | 4 hrs. |
|--|--------|

- | | |
|---|--------|
| 19. European History of the 16th and 17th Centuries (Hist. 3) | 4 hrs. |
| 20. Roman Poetry of the Augustan Age (Cl. Lit. 1) | 2 hrs. |

Second Semester.

- | | |
|--|--------|
| 21. European History of the 18th Century (Hist. 4) | 4 hrs. |
| 22. Greek Epic and Lyric Poetry (Cl. Lit. 2) | 2 hrs. |
| 23. American Literature (Lit. 4) | 4 hrs. |

Requirements for the Special Courses

Course A (Classics). Subjects 12, 13, 20, and 22 required.

Course B (Modern Languages). Any two of subjects 14, 15, and 16, and any two subjects 18, 8 and 9 required.

Course C (Modern History). Subjects 17 and 21 required.

Course D (Literature). Subjects 19, 20 and 22, and Course 18 required.

Junior Year. 15 hours per semester.

General List of Subjects Offered in the Junior Year

FULL COURSES

- | | |
|--|--------|
| 24. Greek (Gr. 5 and 6) | 3 hrs. |
| 25. Latin (Lat. 5 and 6) | 3 hrs. |
| 26. French (Fr. 5 and 6) | 3 hrs. |
| 27. German (Ger. 5 and 6) | 3 hrs. |
| 28. Spanish (Sp. 5 and 6) | 3 hrs. |
| 29. General Course in German Literature (Ger. Lit. 1) | 2 hrs. |
| 30. General History of Spanish Literature (Sp. Lit. 1) | 2 hrs. |

HALF COURSES

First Semester.

- | | |
|---|--------|
| 31. European History from 1789-1848 (Hist. 5) | 4 hrs. |
| 32. English Literature of the 18th Century (Lit. 5) | 4 hrs. |
| 33. French Drama of the 17th Century (Fr. Lit. 2) | 2 hrs. |
| 34. Latin Satiric Poetry (Cl. Lit. 3) | 2 hrs. |
| 35. Latin Verse Composition (Lat. 5a) | 2 hrs. |

Second Semester.

- | | |
|---|--------|
| 36. European History from 1848 to present day (Hist. 6) | 4 hrs. |
| 37. Prose Literature of the 19th Century (Lit. 6) | 2 hrs. |
| 38. History of the Protestant Reformation (Hist. 7) | 2 hrs. |
| 39. History of Frederick the Great (Hist. 8) | 2 hrs. |
| 40. History of the English Novel (Lit. 7) | 2 hrs. |
| 41. Greek Tragic Drama (Cl. Lit. 4) | 2 hrs. |
| 42. Greek Verse Composition (Gr. 6a) | 2 hrs. |
| 43. The Romantic Movement in French Literature (Fr. Lit. 3) | 2 hrs. |

Students may elect from any of the subjects contained in this list and also from those in the General List of the previous year and not already taken.

Requirements for the Special Courses

Course A (Classics). Subjects 24, 25, 34 and 41 required.

Course B (Modern Languages). Subjects 26 and either 27 or 28; also 33 and either 29 or 30 required.

Course C (Modern History). Subjects 31, 36 and either 38 or 39; also one at least of subjects 26, 27 or 28 required.

Course D (Literature). Subjects 32, 37 and one at least of subjects 29, 30 or 43 required.

Senior Year. 15 hours per semester.

General List of Subjects Offered in the Senior Year

FULL COURSES

44. Greek (Gr. 7 and 8)	2 hrs.
45. Latin (Lat. 7 and 8)	2 hrs.
46. French (Fr. 7 and 8)	2 hrs.
47. German (Ger. 7 and 8)	2 hrs.
48. Spanish (Sp. 7 and 8)	2 hrs.

HALF COURSES

First Semester.

49. English History of the 19th Century (Hist. 9)	3 hrs.
50. English Poetry of the 19th Century (Lit. 8)	3 hrs.
51. German Literature of the 18th Century (Ger. Lit. 2)	2 hrs.
52. Greek Oratory and Philosophy (Cl. Lit. 5)	2 hrs.
53. Comparative Study of the Tragic Drama (Lit. 9)	2 hrs.
54. Comparative Study of Epic Poetry (Lit. 10)	2 hrs.

Second Semester.

55. History of Constitutional Government (Hist. 10)	2 hrs.
56. German Literature of the 19th Century (Ger. Lit. 3)	2 hrs.
57. Roman Oratory and Philosophy (Cl. Lit. 6)	2 hrs.

58. Comparative Study of the Comic Drama
(Lit. 11) 2 hrs.
59. Comparative Study of History (Hist. 12) 2 hrs.
60. English Lyric Poetry (Lit. 12) 2 hrs.

Students may elect any of the above subjects and also from the general list of the previous year.

Requirements for the Special Courses

Course A (Classics). Subjects 44 and 45 required.

Course B (Modern Languages). Subjects 46 and either 47 or 48 required. Students taking 47 will also take 52 and 57.

Course C (Modern History). Subjects 49, 50, 56 and 60 required.

Course D (Literature). Subjects 51, 54, and one at least of 55, 59 and 61 required.

College of Science and Engineering

Faculty

E. D. McQueen Gray, M. A., Ph. D., President of the University.

*M. F. Angell, M. A., Dean and Professor of Physics and Engineering.

†J. D. Clark, M. S., Associate Professor of Chemistry.

J. R. Watson, M. A., Associate Professor of Biology.

J. A. Pynch, B. A., Associate Professor of Geology.

H. H. Conwell, B. S., Associate Professor of Mathematics.

L. B. Stephan, B. A., Assistant Professor of German.

G. R. Roberts, C. E., Assistant Professor of Civil Engineering.

* On sabbatical leave, 1910-11.

† Acting dean, 1910-11.

College of Science and Engineering

The College of Science and Engineering consists of two schools,

- (a) SCHOOL OF SCIENCE.
- (b) SCHOOL OF ENGINEERING.

- The courses offered in both these Schools are carried on for the present in the Science Building, which was erected in the autumn of 1910 shortly after the destruction of Hadley Hall, to meet the immediate needs of the University. The building is admirably designed and constructed for this purpose.

In the Science Building are located a drafting room, a physical laboratory, an electrical testing room, a dark room, a machine shop, a biological laboratory, a geological laboratory, a lecture room, a chemical laboratory and an assay room, together with the usual offices, stock rooms, balance rooms, etc.

The physical laboratory is large, well lighted and excellently adapted for accurate work. The equipment is completely new and is ample for college and preparatory work in Mechanics, Heat, Light, Electricity and Magnetism. The great importance of research has been recognized and equipment has been supplied for several branches of graduate work.

The chemical department has, besides the modern lecture room which is located in the building, a stock room, balance room, instructor's office, and a laboratory for qualitative analysis, quantitative analysis, and organic chemistry. The equipment of the department consists of a complete stock of chemicals, the usual lecture apparatus, and apparatus for qualitative and quantitative analysis in all the branches given in under-

graduate work. Equipment for research is added as need.

An assay laboratory is to be installed in the basement of the recently erected building and will be equipped with samplers, crushers, furnaces, balances, etc. Thorough work in fire assaying will be carried on.

Probably no university in the United States is more favorably located for field work in geology. Nature has on exhibition about Albuquerque an unusually large collection of evidence of her dynamic action, and because of the unsurpassed climate enjoyed here, outdoor work is possible during the entire year. The state at large, being a wonderfully equipped natural laboratory presents an inviting field for the study of the varied occurrences of minerals, different phases of stratigraphy, and the much unsolved, as yet, geological history.

School of Science

The School of Science includes the various departments of natural, physical and mathematical science. It provides a liberal education with science as a leading element and allows specialization in Physics, Chemistry, Biology, Geology and Mathematics. The courses are arranged to give the student a wide selection provided they lead to a definite result; during the first year, however, all students are required to take the same course, which is made up of subjects which should form the basis of all scientific work. After the first year students will decide upon the subject they wish to pursue as a major and this course will be made out under the direction of the instructor in charge.

All candidates for the degree of Bachelor of Science must present a graduating thesis, if required, on a

subject to be approved by the head of the department in which the candidate is doing the work. The thesis must represent some phase of the student's work in his major subject. It must be typewritten on good paper, 8x10 in size, and bound according to specifications by the Librarian of the University. Having been approved, and accepted by the head of the department it becomes the property of the University and, with a fee for binding, must be deposited in the Library before May 1st.

A student may change his major subject only by permission of the Faculty, but in so doing the student must complete all the work required in his major for graduation, no matter how much may have been taken in other departments.

In addition to Public Speaking 1 and 2, or its equivalent in Seminar Work, a minimum of 120 semester hours of A work, 128 hours of B work or 136 hours of C work are required for graduation; at least one-third and not over one-half of this work must be in the major subject selected. The degree of Bachelor of Science, with a specific designation of the course taken, is conferred upon a satisfactory completion of the course.

The requirements of the first year are: English 1 and 2, 3 hours; Mathematics 1 and 2, 3 hours; Chemistry 1 and 2, 5 hours; Scientific German 3 and 4, 5 hours.*

Majors may be selected in Biology, Chemistry, Geology, Mathematics or Physics; but even after the selection is made, considerable latitude of choice is allowed the individual student.

* If the student does not present two units in German he will substitute Scientific German 1 and 2, and postpone German 3 and 4 until the Sophomore year.

Biology Course; Sophomore, Biology 1 and 2, 5 and 6 (or 3), Chemistry 7 or Geology 1 and 2. Electives 2 to 11 hours which must include second year German and French if not already taken.

Junior and Senior Biology 3 (or 5 and 6), 4, 15, 11. Electives 35 to 38 hours.

Pre-medical course must include Biology 1, 2, 5, 6, 8, 9, 10, 12, 14, 16; Chemistry 7, chemistry of food.

Electives will be chosen upon consultation. This course is not intended to be absolutely rigid, but can be modified to suit individual needs upon consultation.

Physics Course; for a Bachelor of Science degree in Physics the student must include courses 1, 2, 3, 4, 5, 6, 8, or 11, 13 and 14 in Physics, and the Mathematics required for these courses. French 1 and 2 will also be required.

Chemistry Course; for a Bachelor of Science degree in Chemistry includes courses 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12 and thesis.

Geology Course; this course includes courses 1, 2, 3, 4, 5, 6, 7, 8 and 9 in Geology, Biology 1 and 2 and Physics 1 and 2.

Mathematics Course ; for a Bachelor of Science degree courses 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, or 13 must be included.

A General Science course is offered, consisting of three years in the School of Science and one in the School of Education. This course is designed especially for the training of High School teachers and leads to the degree of Bachelor of Pedagogy; for an outline of the course see School of Education.

Graduate courses are offered in Biology, Chemistry, Geology, and Physics, leading to the degree of Master of Science in the particular course.

School of Engineering

The Engineering School was organized in 1906 and the attendance and work done has been very encouraging. The purpose of this department is to train and prepare men to enter the various engineering professions, giving them a four years' college course, leading to the degree of B. S. in engineering. The aim is always to make entrance requirements and requirements for graduation up to the standard of leading engineering schools throughout the country. The courses have been outlined to include both professional and cultural studies, in order that the student may not only receive instruction in the theory and practice of engineering work, but may at the same time broaden his views and develop his ability to clearly and effectively present his views verbally or in written reports. Owing to the rapid development in engineering methods and practices, it is necessary that the young engineer should be trained to solve new problems and learn the general principles of applied science, rather than collect a large store of data, no matter how valuable they may be at present. The courses have been outlined so as to include enough of at least one foreign language to enable the graduate to read articles in the technical periodicals of that language. The theoretical and mathematical branches are taken up in the earlier part of the courses, while the application and specialization make up the latter part. Original investigation and experimental research will be taken up during the fourth year of the course.

Equipment

In addition to the general library, which is at the disposal of all students, there are a number of engi-

neering and other scientific periodicals and books on the reading table and in the departmental libraries of the Science Building.

The Engineering School has instruments for field work in surveying; there are farms laid out on the University grounds for the purpose of giving the student practice in the use of the various surveying instruments. Special attention is given to the use of the level, compass, and transit, with attachments.

The machine shops afford facilities for carpenter work, wood turning, forge work, bench and machine work in iron, pattern making, and installing and assembling of machinery.

The draughting room is equipped with desks and drawing boards, but each student is required to furnish his own instruments, T-squares, triangles, etc., for draughting work.

Realizing the value of an organization for presenting and discussing papers on engineering subjects, the students of the Engineering School have organized the University of New Mexico Society of Engineers. This organization combines club and literary society features with a study of current engineering literature.

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. Through the courtesy of these concerns it is possible for the engineering students to get a much better idea of the actual process and methods in use in up-to-date, practical shops than could possibly be gained in the shops 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 shops offer excellent opportunity for the student to become familiar with shop practice.

Special Students

Students, over 21 years of age, not working for a degree, may be permitted to take special studies without passing the entrance requirements upon giving satisfactory evidence that they can do so advantageously.

Required Work

All candidates for a degree in Engineering are required to present two units in Public Speaking or an equivalent and 140-hours of college work; of these the following 82 hours are required of all engineering students:

Scientific German, 3 and 4.....	10
English	6
Mathematics	16
Chemistry	10
Physics	15
Mechanical Drawing	7
Structural Engineering	7
Hydraulic Engineering	2
Surveying	6
Steam Engineering	3
Total	82

In addition to the above list, the following work is required in the different groups:

CIVIL ENGINEERING GROUP.

Mechanical Engineering	6
Structural Engineering	1
Hydraulic Engineering	1
Surveying	15
Electrical Engineering	5

ELECTRICAL ENGINEERING.

Physics	7
Mechanical Engineering	6
Electrical Engineering	22
Shop Work	4

MECHANICAL ENGINEERING GROUP.

Mechanical Engineering	21
Shop Work	10
Structural Engineering	2
Steam Engineering	3
Electrical Engineering	10

MINING ENGINEERING GROUP.

Chemistry	10
Geology	30
Surveying	5
Structural Engineering	2
Mineralogy and Assaying	11

Thesis

The conditions governing work on thesis will be found set forth under the Requirements for the Bachelor of Science degree in the School of Science.

Description of Courses

COLLEGE OF LETTERS AND ARTS

Department of English

FRESHMAN YEAR.

Full Course.

English Composition. Written and oral themes and exercises in the four forms of literary discourse, with a study of the general principles of rhetoric. Required of all Freshmen. 3 hrs.

First Semester.

7. (General List). *English Literature.* General history of English Literature, supplemented with close study of representative authors, and with required library reading. 2 hrs.

Second Semester.

9. (General List). Historical Structure and development of the English Language. 2 hrs.

SOPHOMORE YEAR

18. (General List). *English Literature of the 16th and 17th Centuries.* A study of the period from 1558 to 1660, with class and literary reading of the representative authors, special attention being given to Shakespeare. 4 hrs.

Second Semester.

23. (General List). *American Literature.* General history of American Literature with class and library reading of representative authors, arranged chronologically so as to reflect the historic development of the literature. 4 hrs.

JUNIOR YEAR

First Semester.

32. (General List). *English Literature of the 18th Century*. A study of the period 1660-1780, with class and library reading. 4 hrs.

Second Semester.

37. (General List). *English Prose of the 19th Century*. A study of English prose, exclusive of the novel, from 1800 to the present day. 3 hrs.
40. (General List). *History of the English Novel*. Historical and critical survey of the English novel from Defoe to Meredith. 2 hrs.

SENIOR YEAR

First Semester.

51. (General List). *English Poetry of the 19th Century*. Historical and critical survey of English Poetry from Wordsworth to Browning. 3 hrs.

Second Semester.

61. (General List). *English Lyric Poetry*. A general review of English lyric poetry from the Elizabethan period to the present day. 2 hrs.

Department of History

FRESHMAN YEAR

First Semester.

1. English History of the 16th and 17th Centuries. Text-book, Bright, Vol. III; Personal Monarchy. 4 hrs.

Second Semester.

2. English History of the 18th Century. Text-book, Bright, Vol. IV; Constitutional Monarchy. 4 hrs.

SOPHOMORE YEAR

First Semester.

3. European History of the 16th and 17th Centuries. 4 hrs.

Second Semester.

4. European History of the 18th Century. 4 hrs.

JUNIOR YEAR

First Semester.

5. European History from 1789 to 1848. Text-book, Student's Modern Europe. 4 hrs.

Second Semester.

6. European History from 1848 to present time. Text-book, Student's Modern Europe. 4 hrs.

SENIOR YEAR

First Semester.

9. English History of the 19th Century. Text-book, Bright, Vols. IV & V. 3 hrs.
11. History of France from 1775 to 1815 (not given in 1911-12). 2 hrs.

Second Semester.

10. History of Constitutional Government. 2 hrs.
12. Comparative Study of History. 2 hrs.

Department of Latin

FRESHMAN YEAR

First Semester.

2. Cicero's De Senetute. Virgil's Aeneid, Books VII-IX. Latin Prose Composition. 4 hrs.

Full Course.

- 1 8. (General List). Roman Antiquities. A general

course open to all college students. A knowledge of the Latin language advisable, but not essential. 2 hrs.

The aim of this course is to afford a more thorough and sympathetic knowledge of Roman private life than the course in literature alone would give, through systematic lectures copiously illustrated by lantern views and photographs from the remains of Roman civilization preserved in Pompeii, Herculaneum, Rome and elsewhere.

Second Semester.

2. Selections from Livy; Virgil's Georgics. Assigned topics in Roman History. Latin Prose Composition. 4 hrs.

SOPHOMORE YEAR

First Semester.

13. The course in Selections from Livy continued; Horace; Selected Odes, Satires and Epistles. Practical application of the various metres. The Latin Lyric Poets. Latin Prose Compositions. 4 hrs.

Full Course.

20. (General List). Latin Literature.—Mackail's Roman Literature supplemented by lectures. History of Roman Literature. Cape's Early Empire. 2 hrs.

Second Semester.

13. Cicero; Selected Letters and Orations; The Course in Horace's Odes, Satires and Epistles continued. Latin Prose Composition. 4 hrs.

JUNIOR YEAR

First Semester.

25. Suetonius, Pliny, Tacitus. Such portions of the authors will be read as will give a comprehensive view of the condition of the Roman people during the first century of the Empire. 3 hrs.
34. (General List). Latin Satiric Poetry. A general course, open to all college students. A knowledge of Latin desirable, but not essential. 2 hrs.

Second Semester.

25. Plautus and Terence: two plays each. Study of the Roman theatre and development of Latin Comedy.
35. (General List). Latin Verse Composition. 2 hrs.

SENIOR YEAR

First Semester.

45. Lucretius: De Natura Rerum; study of the literary, scientific and religious aspects of the poem. Cicero: De Finibus, Academica, De Natura Deorum. 2 hrs.
58. (General List). Roman Oratory and Philosophy. A general course, open to all college students. A knowledge of Latin desirable, but not essential. 2 hrs.

Second Semester.

45. Latin Palaeography. A study of the manuscripts from fac-similes.

Department of Greek

FRESHMAN YEAR

First Semester.

1. Andocides, De Mysteriis. Lysias, Select Orations. The cause of the revolutions of 411 B. C. and 404

B. C. will be carefully studied. Collateral reading from ancient and modern historians. 4 hrs.

Second Semester.

1. Plato, Apology and Phaedo. Rapid reading and analysis of the Euthyphro and Crito. A study of the life and work of Socrates. General introduction to Greek Philosophy. 4 hrs.
11. (General List). Greek Life and Thought. General course, open to all college students. A knowledge of Greek recommended, but not necessary. 2 hrs.

SOPHOMORE YEAR

First Semester.

12. Demosthenes: De Corona, or The Philippics. Selections from other Attic orators, illustrating the development of Greek Oratory. Composition continued. 4 hrs.

Second Semester.

12. Homer: 12 books, selected from the Iliad and Odyssey. Special papers and lectures on the Homeric literature and age. Composition continued. 4 hrs.
22. (General List). Greek Epic and Lyric Poetry. 2 hrs.

JUNIOR YEAR

First Semester.

24. Thucydides; Peloponnesian War. Rapid reading of the Greek; essays, translations and discussions. Comparative study of historians. Composition continued. 3 hrs.

Second Semester.

24. Aeschylus: Prometheus Bound. Sophocles: Oedipus Tyrannus. Reading of other selected dramas. 3 hrs.
41. (General List). The Greek Tragic Drama. General course open to all college students. A knowledge of Greek recommended, but not essential. 2 hrs.
42. Greek Verse Composition. 2 hrs.

SENIOR YEAR

First Semester.

44. Plato: Republic, Books 1-10. Essays, reviews, and discussions by members of the class. 2 hrs.
53. (General List). Greek Oratory and Philosophy. General course open to all college students. A knowledge of Greek advisable, but not essential. 2 hrs.

Second Semester.

44. Topography and Monuments of Ancient Greece. Private life of the Ancient Greeks. 2 hrs.

Department of French

FRESHMAN YEAR

First Semester.

3. Elementary French. Reading of easy passages and simple stories; the principles of grammar; conversation, dictation, composition. Such attention is paid to phonetics as will enable the student to secure an accurate pronunciation from the very outset. 4 hrs.

Second Semester.

3. Reading of easy authors; "Paul et Virginie";

"Voyage de M. Perrichon". Memorizing of verse. Grammar and irregular verbs. Composition and conversation. 4 hrs.

SOPHOMORE YEAR

First Semester.

14. Reading, translation and conversation. Daudet, George Sand, Labiche et Martin. Study of French Syntax. Composition. Conversation. 4 hrs.
18. (General List). A. General Course in French Literature. Open to all College Students. A knowledge of the French language is desirable, but not essential. 2 hrs.

Second Semester.

14. Reading of standard authors continued. Mérimée, Anatole France, Edmond Rostand, etc. Composition, conversation. Study of accidence and syntax. Idioms and synonyms. 4 hrs.
17. (General List). B. General Course in French Literature continued. Open to all college students. 2 hrs.

JUNIOR YEAR

First Semester.

26. Drama of the 17th Century. Special Study of the works of Racine, Moliere and Corneille. Representative works will be read, partly in class, partly as outside reading. Composition. Conversation. Idioms and synonyms. 3 hrs.
33. (General List). The French Drama of the 17th Century. Open to all college students. A knowledge of the French language desirable, but not essential. 2 hrs.

Second Semester.

26. Study of the writers of the Romantic School, with special reference to Victor Hugo. Composition. Conversation. Discussion of literary and colloquial forms and critical points in grammar. 3 hrs.
43. (General List). Victor Hugo and the Romantic Movement in France. Open to all college students. A knowledge of French desirable, but not essential. 2 hrs.

SENIOR YEAR

First Semester.

46. Literature of the French Renaissance. The Pleiade. The beginning of Classicism. Rabelais to Malherbe. Critical essays in French submitted by students. 2 hrs.

Second Semester.

46. Fiction, poetry and the drama in the latter half of the 19th century. Critical essays required from the students. 2 hrs.

*Scientific French**First and Second Semesters.*

- 1-2. For students specializing in science who wish to make use of the French language in research work. Rapid reading of French scientific literature. Students will be allowed to read along the line of intended specialization. Open to students who have had two years of French. 3 hrs.

Department of Spanish

FRESHMAN YEAR

First Semester.

5. Elementary Spanish. The elements of grammar, reading and conversation. 4 hrs.

Second Semester.

5. Elementary Spanish continued. Grammar and reading of easy stories. Essays and translation with drill in conversation. 4 hrs.

SOPHOMORE YEAR

First Semester.

16. Intermediate Spanish. Reading of such works as Alarcon's "El Capitan Veneno," and Echegaray's "El Poder de la Impotencia"; essays and stories in Spanish; conversation continued. 4 hrs.

Second Semester.

16. Advanced Spanish. Prose Composition; Reading of such authors as Galdós and Avellaneda. Occasional debates and discussions in Spanish. 4 hrs.

JUNIOR YEAR

First Semester.

28. Modern Spanish Drama. Study and interpretation of the masterpieces of modern Spanish dramatic literature. Works of Echegaray, Lopez de Ayala, Goldós, Tamayo y Baus, etc. 3 hrs.
30. (General List). General Course in Spanish Literature, open to all students of the college. A knowledge of Spanish desirable, but not essential. 2 hrs.

Second Semester.

28. Study of the Spanish Classics. Cervantes and the dramatists of the Golden Age are given in alternate years. For 1911, Cervantes. 3 hrs.
30. (General List). General Course in Spanish literature continued. 2 hrs.

SENIOR YEAR

First Semester.

48. Spanish Ballad Poetry. Rise and development of Spanish Epic Poetry. Lectures on the origin of Spanish Ballad poetry and its significance in Spanish literature. Special study of certain groups. For 1911, the Cid ballads. Wolf's Primavera y Flor de Romances. 2 hrs.

Second Semester.

48. Old Spanish. Introduction to Spanish Philology. Lectures on Phonology and Morphology. 2 hrs. Spanish Seminar. Special work for advanced students in Spanish or comparative Romance, philology or literature. 1 hr.

Department of German

FRESHMAN YEAR

First Semester.

4. Elementary grammar and translation. Conversation and simple composition begun. Memorizing of simple German verse. 4 hrs.

Second Semester.

4. Grammar and conversation continued. Reading of about 150 pages of easy translation. Memorizing simple German ballads. Composition. 4 hrs.

SOPHOMORE YEAR

First Semester.

15. Translation of a prose author: 2 hours; reading Schiller's ballads and memorizing some of them, 1 hour; Composition, 1 hour. Conversation continued. 4 hrs.

Second Semester.

15. One of Lessing's dramas, either "Nathan der Weise" or "Minna von Barnhelm", 2 hours; the ballads of Schiller continued, 1 hour; Composition, 1 hour. (Conversation). 4 hrs.

JUNIOR YEAR

First Semester.

27. Schiller's dramatic works, 2 hours; composition, 1 hour. 3 hrs.
29. (General List). General Course in German Literature; open to all college students. Knowledge of the German language desirable, but not essential. 2 hrs.

Second Semester.

27. Goethe's Life and Works, 2 hours; composition, 1 hour. 3 hrs.
29. (General List). General Course in German Literature continued. 2 hrs.

SENIOR YEAR

First Semester.

47. Reading of modern German authors. Critical essays on subject-matter submitted by students. 2 hrs.
52. (General List). German Literature of the 18th Century. Open to all college students. Knowledge of German desirable, but not essential. 2 hrs.

Second Semester.

47. Reading of modern German authors. Critical essays. Special attention paid to the formation of a good literary style. 2 hrs.

57. (General List). German Literature of the 19th Century. Open to all college students. 2 hrs.

Scientific German

- 1-2. *Elementary course for deficient entrance requirements* in German. Daily, two semesters. Designed to cover two years of preparatory work for the reading of scientific German, and hence will require of the student earnest, intensive work.

First Semester.

3. Scientific German. All the chief divisions of science will be represented and the reading will be extensive. 5 hrs.

Second Semester.

4. Scientific German. Reading of scientific magazines and periodicals. Assigned topics and individual reports. Students will, as far as possible, be allowed to read along lines of chosen or intended specialization. 5 hrs.

Forensics and Declamation

Courses in these subjects, covering the principles and practice of parliamentary procedure and debating, argument and exposition together with the study of expression will be offered. Open to all college students. Forensics, 1 hour. Declamation, 1 hour.

Department of Music

DIRECTOR: Helena Egyptiades.

STUDENT ASSISTANT: E. Stanley Seder.

Vocal Music

Preparatory Course.

The principles and practice of tone production; breathing; sight reading; Sieber's 36 elementary vocalises; Lamperti's Daily Exercises; Abt's Singing Tutor. Theory of Music; Elementary Harmony; Notation.

Freshman Year.

Vocal studies selected from: Concone's Fifty Lessons, Spicker's Masterpieces of Vocalisation Book I, Sieber's Vocalises Op. 95 and 96, Lamperti's Thirty Preparatory Exercises. Practice in easy duets and solos. Harmony continued. 1 hr.

Sophomore Year.

Vocal studies continued, based on Bordogni's 24 Easy Vocalises. Concone's 15 Vocalises. Spicker's Masterpieces of Vocalisation, Book II, or Concone's Forty Lessons. Music of the Scuola Antica. Song solos and duets of medium difficulty. Harmony continued. 2 hrs.

Junior Year.

Vocal studies continued; Bordogni's Twelve Vocalises, Panofka Op. 81, or Spicker's Masterpieces of Vocalisation, Book III, or Vaccai's Vocal

Method. Lyric songs, operatic arias, oratorio work. Music of the Scuola Antica. Harmony continued. 2 hrs.

Senior Year.

Vocal studies continued; Bordogni's 36 Vocalises, Lamperti's Studies in Bravura, or Spicker's Masterpieces of Vocalisation, Book IV, Righini's Twelve Vocalises. Study of the operas, oratorios and the Scuola Antica. Harmony continued. 3 hrs.

Choral Work.

Choral work, including regular attendance at choir practice, is required of all students of the Department of Music.

Piano Music

No preparatory work given.

Those pupils only will be enrolled who have completed at least the second course in piano music.

Courses arranged on the plan of the European Conservatories of Music. Development of the hand, correct technique. Method used, "Cesi's "Daily Exercises" on the different branches of technique, in 3 volumes.

The full course in piano music will be given to those who wish to specialize in the subject.

Violin Music

An arrangement has been entered into on behalf of the University with Mrs. John D. Clark, whereby the students of the Institution may avail themselves, on

special terms, of the instruction which Mrs. Clark is willing to offer. Mrs. Clark, who is a pupil of Jacques Hoffmann, leader of the Boston Symphony Orchestra, is a performer of high standing and an instructor of distinguished merit, and the Department of Music will undoubtedly be strengthened greatly by her co-operation. Students desiring instruction in the violin will address the Registrar on the subject.

College of Science and Engineering

Mathematics

First Semester.

1. University Algebra. Theory of limits; ratio and proportion; arithmetical, geometrical and harmonic progressions; binomial theorem; arrangements and groups; the theory of probability; convergence, divergence, and summation of series; undetermined coefficients; derivatives; logarithms; separation of roots and an introduction to the general theory of equations. 3 hrs.

Second Semester.

2. Analytic Geometry. Rectangular and polar co-ordinates, straight line, circle, parabola, ellipse, hyperbola, and general equations of the second degree and higher plane curves. 3 hrs.

First Semester.

3. Plane and Spherical Trigonometry. Advanced Course. 3 hrs.

First Semester.

5. Differential and Integral Calculus. 5 hrs.

Second Semester.

6. Differential and Integral Calculus. Continuation of Course 5. 5 hrs.

First Semester.

7. Plane Analytic Geometry. Advanced Course. Prerequisite, course 2. 3 hrs.

Second Semester.

8. Solid Analytice Geometry. Prerequisite, course 5.
3 hrs.

First Semester.

9. Advanced Algebra. Prerequisite, course 5. 3 hrs.

Second Semester.

10. Limits and Series. 3 hrs.

First Semester.

11. Advanced Calculus. 3 hrs.

Second Semester.

12. Differential Equations. Especially adapted to the needs of students in advanced Physics and Mechanics. 3 hrs.

First Semester.

13. Advanced Calculus. 3 hrs.

*Physics**First Semester.*

1. *Mechanics, Sound and Light.* Lectures, recitations and two hours' laboratory work per week. Prerequisite: Courses 1 and 2 in mathematics, solid geometry and preparatory physics. 5 hrs.

Second Semester.

2. *Heat, Electricity and Magnetism.* Lectures, recitations and two hours' laboratory work per week. Prerequisites: Same as for course 1. May be taken without having had course 1. 5 hrs.

First Semester.

3. *Advanced Electricity and Magnetism.* Prerequisite: Courses 2 and 6 in mathematics. A lecture course in advance of the general course, using calculus methods. 3 hrs.

First Semester.

5. *Electrical Measurements.* A laboratory course, designed to accompany course 3, but may be taken separately. Required of electrical engineers; elective for others. Laboratory work, 2 hours.

Second Semester.

6. *Electrical Measurements.* A continuation of course 5. Required of electrical engineers. Laboratory work, 2 hours.

First Semester.

7. *Theoretical Mechanics.* An elementary course in Mechanics. Prerequisite: Mathematics 4 and 6, Physics 1. 3 hrs.

Second Semester.

8. Continuation of course 7. 3 hrs.

First Semester.

9. *Kinetic Theory of Gases.* 2 hrs.

Second Semester.

10. *Theory of Heat.* 2 hrs.

First Semester.

11. *Theory of Optics.* Schuster's Theory of Optics is used as a text. 3 hrs.

Second Semester.

12. *Analytic Mechanics.* The principles of dynamics and kinetics, for engineers. Harmonic motion; graphic statics; balance of machines. Prerequisite: Mathematics 4 and 6, Physics 1. 5 hrs.

Two Semesters.

- 13 and 14. *Thesis Work.* Special attention is paid to students taking this work, which consists of a thorough investigation along a particular line, with research work directly under the charge of the instructor. 5 hrs.

Two Semesters.

- 15 and 16. *Science Seminar.* A course designed for advanced students in science, with presentation and discussion of current periodical literature. 1 hr.

First Semester.

17. *Elementary Electricity and Magnetism.* A ten weeks extension course for those who wish in a few weeks a working knowledge of the subject. No previous knowledge of the subject is required and the course of instruction will be made up to suit the ability of those taking the course.

Second Semester.

18. *Elementary Dynamo Electric Machinery.* An extension course similar to course 17, which will treat in an elementary manner the construction and management of electrical machinery.

Chemistry

First Semester.

1. *Inorganic Chemistry.* Lectures and recitations on general and theoretical chemistry, illustrated by experiments, charts, specimens, etc. Solution of chemical problems is required. 5 hrs.

Second Semester.

2. *Qualitative Analysis.* This course consists of laboratory practice in the separation and detection of the common acids and bases. Occasional lectures and examinations will be given. A full set of notes is required. Laboratory work, 5 hours. Prerequisite: Course 1.

Either Semester.

3. *Quantitative Analysis.* This course consists wholly of laboratory work. Gravimetric methods are taken and volumetric work started. Laboratory work, 5 hours. Prerequisite: Course 2. 5 hrs.

Either Semester.

4. *Quantitative Analysis.* A continuation of volumetric work. Laboratory work, 5 hours. 5 hrs.

Either Semester.

5. *Quantitative Analysis.* This course gives practice in the greatest variety of manipulation. Types of the important methods are taken up. Analysis of ores, metals, slags, alloys, fuels, soils, fertilizers, dairy products, food stuffs, waters, urine, poisons, drugs, gases and oils will be taken. The needs of the individual student will be considered in this work. Laboratory work, 5 hours. Prerequisite: Courses 3 and 4. 5 hrs.

Either Semester.

6. *Quantitative Analysis.* A continuation of course 5. Laboratory work, 5 hours. 5 hrs.

First Semester.

7. *Organic Chemistry.* Lectures, laboratory work and recitations on the chemistry of the carbon compounds. Laboratory work, 3 hours. Given alternate years. Prerequisites: Courses 1 and 2. 6 hrs.

Second Semester.

8. *Physical Chemistry.* This work consists of advanced study of chemistry theory. Practice experiments will be performed with the aid of the student in the determination of vapor density, molecular weights, specific heats, etc., and the study of isomorphisms, diffusion of gases, solutions, ionization, electrolysis, molecular and atomic volumes, thermo chemistry, equilibrium, the phase rule, etc., will take up much of the time. Given in alternate years. Prerequisite: Courses 1, 2, 3 and 4. 4 hrs.

First Semester.

9. *Industrial Chemistry.* This course consists of lectures on chemical manufactures such as sugar, sodium carbonate, fertilizers, sulfuric acid, glass, matches, paints, dyes, illuminating gas, petroleum, etc. The lectures will be illustrated by lantern slides and charts. § Given in alternate years. Prerequisite: Courses 1 and 2. 2 hrs.

Second Semester.

10. *Metallurgy.* This course consists of lectures describing the processes employed in the smelting of

iron, lead, copper, zinc, silver, gold, etc., and upon methods used in the refining of these metals. The lectures will be illustrated by lantern slides. § Given in alternate years. Prerequisite: Courses 1, 2 and 9.

Second Semester.

12. *Chemistry of Food and Nutrition.* This subject includes the composition of foods and of the animal body, the assimilation of the former by the latter and the principles underlying a rational diet. Particularly a practical course for women students. 1 hr.
- 13* and 14*. Advanced work for individual students.

Biology

1. *Zoology.* In a similar manner the development of the animal types will be followed from the protozoa to man. Dissections will be made of two or three protozoans, a sponge, a coelenterate, a flat-worm (tape-worm), a round-worm, a rotifer, a molluscoidan (*Bugula*), a star-fish and other echinoderms, an annelid (earth-worm), several arthropods including *Cyclops*, the cray-fish, and a representative of each of the chief orders of insects, several molluscs, a tunicate, a fish, the frog, a lizard, and a bird. Lectures and recitations, 2 hours, laboratory work, 3 hours.
2. *Botany.* A study of representative types of plants by the use of the microscope and macroscopic dis-

§ Before a chemical student is graduated an opportunity is given him to spend some time in Denver, with an instructor, in inspection and study of the varied chemical industries of that city.

sections. Beginning with the Bacteria and Blue-green Algae the evolution of the plant phylla is followed to the Composites, along with the morphology, life-histories, development of sex, and economic importance. Lab. 3 hours.

- 3 and 4. *Ecology and Geographical Biology*. A field study of the distribution, succession, life-histories, and habits of the animals and plants about Albuquerque. A feature of this course is numerous all-day Saturday trips, during the warmer parts of the school year. During the cooler parts of the year the geographical biology will receive the attention of the class. 2 hrs.

A student taking this course should have had biology 1 and 2 and a good course in physiography.

- 5.* *General Physiology*. A reading course in Verworn's General (Comparative) Physiology. It is the study of physiology in its broadest and most fundamental sense, the study of the physiology of the cell and its living substance. The history of the subject is taken up quite thoroughly. Invaluable for those intending to study medicine or to specialize in biology. Prerequisite: Chemistry 1; Elementary Physics, Elementary Physiology. Given alternate years, beginning with 1911-12. 2 hrs.

- 6.* *Human Physiology*. Intended primarily for those intending to study medicine or to specialize in biology, or to teach physiology in the high schools. This is properly a continuation of course 5, which, however, is not a prerequisite as are Chemistry 1, and Elementary Physiology. Howell's Physiology is used as a text 5 hrs.

- 7 and 8.* *Entomology*. The study of insects. Lectures, laboratory and field work on insects especially with reference to their economic and biological aspects. Smith's *Economic Entomology* will be used as a text. This is intended as an introduction to technical entomology. Laboratory work, 2 hours.
9. A. *The Natural History and Evolution of Mammals*. Three lectures per week and assigned readings on the life-histories, origin, distribution, habits, classification, and economic importance of the orders and chief families of mammals.
9. B. *The Anatomy of Mammals*. Careful studies of their skeletons, and thorough dissections of some mammal. Invaluable for one intending to enter the study of medicine or to teach "physiology" in the high schools. Students are strongly urged to take A and B together. Laboratory, 2 hours.
10. A. *Hygiene and Sanitation*. Lectures and assigned readings on the care of the body; bacteria and their methods of work, the way they get into our bodies, their method of spreading and our methods of combating their spread. Animal parasites and their biology. 2 hrs.
10. B. *Bacteriology*. Lectures and recitations on assigned readings one hour per week. Laboratory work, 3 hours.
- 11.* *Elementary Forestry*. A study of the chief forest trees of the U. S., their identification, character, uses, distribution, enemies of the forest, its man-

agement. Saturday field trips to the mountains will be a feature. Laboratory work, 2 hours. Prerequisite: Elementary Botany. Offered in alternate years, beginning with 1911-12. 5 hrs.

12. *Organic Evolution*. The course will consist of lectures, assigned reading, and a thesis on some topic connected with the course. The evolution of the evolution idea from the Greeks to Darwin and since. Method or Factors in Evolution. Natural Selection, Lamarkian Factors, Mutation. Late experiments. Laws of heredity. Mendel's Law, Weismannism, artificial fertilization, origin of death. Evidence for and against evolution. Lectures T. F. 2 hrs.

- 12B. *Eugenics*. A study of the improvement of the human race through scientific breeding. One hour lecture each week, assigned reading, and a thesis constitute the work of this course. 12A is a prerequisite.

Second Semester.

- 14.* *Embryology*. A study of the development of the frog and the bird and man. The student will largely prepare his own material, thus getting training in microscopical technique. Very valuable for one intending to study medicine as well as for the biologist. Laboratory work, 3 hours. Offered in alternate years beginning with 1911-12. 5 hrs.

- 15 and 16.* *Research Work*. For properly prepared students. Thesis work.

Geology

1. *General Geology.* This course consists in a general survey of Physiographic, Structural, Dynamic, and Histological Geology, combined with a consideration of minerals, rocks and fossils, with the aim of giving the student a comprehensive insight into the field covered by Geology. Several excursions to nearby geological phenomena are required of all students taking the course. Laboratory work including the principles of map interpretation and also involving the study and mapping of areas adjacent to Albuquerque. Throughout the year, 5 hrs.
2. *College Physiography.* A course required and designed to meet the need of all students majoring in Geology or Mining Engineering. This course includes a survey of the lands, atmosphere and oceans of the regions of the world and of the U. S. in particular, involving an areal study of their geology, topography, soil, climate, resources, and industries. This course must precede or accompany Course 1. Fall Semester, 5 hrs.
3. *Economic Geology.* A comprehensive investigation of the occurrence, origin, and development of the metallic minerals, together with the study of the principles of Metamorphism as far as their relation to ore deposits is concerned. The course also includes a study of the major and minor non-metallic mineral products, as, coal, petroleum, natural gas, soils, and building materials. Throughout the year, 4 hrs.
4. *Mineralogy.* The course treats in an elementary way the study of Crystallography combined with

a review of the Chemical and Physical characters of minerals. This part of the course is followed by descriptive Mineralogy as taken up in the laboratory in blowpipe work and determinative Mineralogy. A year's course in Chemistry must accompany or precede this course. Throughout the year, 4 hrs.

5. *Assaying*. Practical laboratory work on all common ores and on the New Mexico ores in particular, in both the wet and dry methods. Prerequisite: Course 3. Second Semester. 3 hrs.
6. *Meteorology*. Besides affording a broad survey of Mineralogy this course is designed to give especial attention to meteorological conditions of this region in particular with especial attention directed to local climatic problems here involved. This course is required of students majoring in Geology. Two hours of laboratory work accompany the course. Fall Semester, 5 hrs.
7. *Petrology*. This course is intended to give the student a working knowledge of rocks of all kinds. The aim is to study the texture of rocks and to identify their constituents by the aid of the Petrologic microscope, and the foundation laid for their classification.
8. *Paleontology*. This includes a brief study of the most important groups of animals and plants with especial attention directed towards extinct types which have been prominent in Geological history. Lectures, collateral reading, and laboratory work. Second Semester. 5 hrs.

- 9 and 10. *Geological Research.* Opportunities for research work in the unworked field of the Territory are unlimited. Especial attention given to graduate students seeking higher degrees. Major for Thesis, 5 hrs.

Surveying

First Semester.

1. *Elementary Surveying.* Class work covering adjustments and uses of the surveyor's compass, level and transit. Two hours' field work. Required of Freshmen in engineering. 3 hrs.

Second Semester.

2. *Elementary Surveying.* Continuation of course 1. Class work covering solar attachments, and methods of U. S. Land Survey. Field work with compass, level and transit. Two hours' field work. Required of Freshmen in civil and mining engineering. 3 hrs.

First Semester.

- 3.* *Advanced Surveying.* Continuation of course 2. Class work covers a study of higher instruments of precision. Field work a continuation of course 2, with map work in draughting room. One hour field work. Required of Sophomores in civil and mining engineering. Prerequisite: Courses 1 and 2. 3 hrs.

Second Semester.

- 4.* *Topography.* Pen and water color work, conventional signs, mapping. Required of Sophomores in civil engineering. Prerequisite: Courses 1, 2 and 3. 2 hrs.

First Semester.

- 5.* *Railway Engineering.* Theoretical study of surveying and construction work in connection with railway surveying. Three hours' field work. Prerequisite: Courses 1, 2 and 3. 5 hrs.

Second Semester.

- 6.* *Railway Engineering.* Maintenance of way, improvement and reconstruction. 3 hrs.

First Semester.

- 7.* *Geodesy.* Johnson's Surveying. Prerequisite: Courses 1, 2 and 3. 3 hrs.

*Mechanical Drawing**First Semester.*

1. *Elements of Mechanical Drawing.* Notes on Practical Mechanical Drawing, Wilson and McMaster. Lettering, geometrical drawing, isometric, cabinet, and orthographic projection, Conventions of working drawings, working drawings of machines from free hand sketches, tracing. Required of all engineering students. 4 hrs.

Second Semester.

2. *Descriptive Geometry.* Generation and classification of lines and surfaces. Intersections and developments. Required of all engineering students. Prerequisite: Course 1. 4 hrs.

*Hydraulic Engineering**Second Semester.*

- 2.* *Hydraulics.* The flow of water over weirs, through orifices and pipes, water wheels, turbines,

hydraulic power development. Required of all Juniors in engineering. Prerequisite: Courses 1 and 2 in Physics and course 6 in Mathematics.
2 hrs.

Second Semester.

- 4.* *Hydraulic Laboratory.* Elementary experiments in connection with course 2. Required of all Juniors in engineering. (Not given except with course 2.)
1 hr.

Structural Engineering

First Semester.

1. *Mechanics of Materials.* Merriman's Mechanics of Materials. Tension, compression, and shearing. Cantilevers and simple beams. Moment of inertia of plane figures. Strength and stiffness of beams, columns, and shafts. Combined stresses. Required of Juniors in engineering.
5 hrs.

Second Semester.

2. *Materials of Construction.* Johnson's Materials of Construction. Strength of materials used in various construction, methods of making strength tests. Prerequisite: Courses 1 and 8 in Physics.
2 hrs.

First Semester.

- 3.* *Masonry Construction.* Theoretical consideration of foundations and other masonry structures, such as arches, dams, etc.
2 hrs.

Second Semester.

- 4.* *Bridge Stresses.* Theoretical consideration of stresses in simple bridge trusses, general consideration of various bridges. Prerequisite: Course 1.
2 hrs.

First Semester.

- 5.* *Bridge Design.* Draughting room work in connection with course 3. Not given except with course 3. 1 hr.

*Electrical Engineering**First Semester.*

1. *Direct Current Machinery and Systems.* Theory of the magnetic circuit. Fundamental principles of motors, generators, and other direct current apparatus and machinery. Systems of distribution, losses, efficiencies, lighting and storage batteries. Required of Juniors in electrical and mechanical engineering. 3 hrs.

Second Semester.

2. *Direct Current Machinery and Systems.* Continuation of course 1 with special reference to the design of direct current dynamos. Required of Juniors in electrical and mechanical engineering. 3 hrs.

First Semester.

3. *Direct Current Laboratory.* Measuring instruments. Operation of electric machinery. Characteristics of different types of direct current machines. Required of Juniors in electrical and mechanical engineering. Laboratory work, 2 hours. 2 hrs.

Second Semester.

4. *Direct Current Laboratory.* Continuation of course 3, with special attention to losses, efficiencies, laboratory and shop tests of direct current

machines. Required of Juniors in electrical and mechanical engineering. Laboratory work, 2 hours. 2 hrs.

First Semester.

5. *Alternating Currents and Alternating Current Machinery.* The generation and utilization of alternating electric currents. The design, construction, and operation of single-phase alternating current generators and transformers. Methods of testing alternating current machinery. Required of Seniors in electrical engineering. 3 hrs.

Second Semester.

6. *Alternating Currents and Alternating Current Machinery.* Characteristics and regulation of alternators. Losses and efficiencies. Polyphase apparatus and systems. Required of Seniors in electrical engineering. 3 hrs.

First Semester.

7. *Testing Alternate Current Machinery and Apparatus.* The testing and operation of single-phase alternating current generators, motors, transformers, and other appliances. Required of Seniors in electrical engineering. Laboratory work, 2 hours. 2 hrs.

Second Semester.

8. *Testing Alternating Current Machinery and Apparatus.* Continuation of course 9. Determining of losses and efficiencies. Operation and testing of polyphase machinery. Required of Seniors in electrical engineering. Laboratory work, 2 hours. 2 hrs.

Both Semesters.

- 11, 12. *Electrical Engineering Thesis.* 5 hrs.

*Steam Engineering**First Semester.*

1. *Thermodynamics.* Principles of transformation of heat into mechanical energy, perfect, saturated and superheated vapors, refrigeration. Required of all Juniors in engineering. Prerequisites: Physics 1 and 2. 3 hrs.

Second Semester.

2. *Steam Engines and Boilers.* Construction, operation and testing of various types of engines and boilers. Required of Juniors in mechanical and electrical engineering. Prerequisite: Course 1. 3 hrs.

*Mechanical Engineering**First Semester.*

1. *Mechanism.* Kinematics of Machinery. Linkages, gears, cams, gear-trains, cone pulleys, etc. Must be accompanied by Math. 3. Required of Sophomores in Mechanical, Electrical and Civil Engineering. 3 hrs.

Second Semester.

2. *Machine Design.* Fastenings, transmissive machinery. Required of Sophomores in Mechanical, Electrical Engineers. Prerequisite: Mechanical Engineering 1. 3 hrs.

First Semester.

3. *Graphic Statics and Dynamics.* Required of Juniors in Mechanical Engineering. Prerequisite: Mechanical Engineering 1. 3 hrs.

Second Semester.

4. *Machine Design.* The application of the principles of mechanics to calculations of machine parts. Adaptation of design to processes of manufacture. Required of Juniors in Mechanical Engineering. Prerequisite: Mechanical Engineering 2. 4 hrs.

First Semester.

5. *Advanced Machine Design.* Design of hoisting machinery. Required of Seniors in Mechanical Engineering. Prerequisite: Mechanical Engineering 4. 4 hrs.

Second Semester.

6. *Advanced Machine Design.* Design of machine tools, punching and shearing machines. Required of Seniors in Mechanical Engineering. Prerequisite: Mechanical Engineering 5. 4 hrs.

First Semester.

7. *Heat Motors.* The principles of operation and design of internal combustion engines. Required of Seniors in Mechanical Engineering. Prerequisite: Steam Engineering 2. 3 hrs.

Second Semester.

8. *Steam Turbines.* Required of Seniors in Mechanical Engineering. Prerequisite: Mechanical Engineering 7. 3 hrs.

First Semester.

9. *Mechanics of Machinery.* Advanced study of the efficiency of machines, friction gears, etc. Required of Seniors in Mechanical Engineering. Prerequisite: Mechanical Engineering 3; Physics 8. 4 hrs.

Second Semester.

10. *Mechanics of Machinery.* Continuation of course 9. 3 hrs.

Shop Work

Courses in shop work are given with a view of teaching the student in engineering, processes of manufacture.

First Semester.

1. *Elementary Shop Work.* One hour lecture. Laboratory work, 2 hours. 3 hrs.
2. *Elementary Shop Work.* One hour lecture. Laboratory work, 2 hours. 3 hrs.

School of Education

Faculty

*C. E. HODGIN, B. Pd., *Professor of Education.*

MENDEL SILBER, B. A., M. D., *Acting Professor of Education.*

HERMON H. CONWELL, *Associate Professor of Mathematics.*

ANITA THOMAS, *Instructor in Education.*

The purpose of the Course of Education is to provide thorough professional instruction for teachers. The academic work is carried on with the University classes, the Normal students thus having the advantage of scholastic work with specialists in the various departments, of ample apparatus and equipment, of the library, of lectures, of literary societies, and of all privileges incident to participation in University life.

The conscious aim of this department is to bring together the essentials of all that directly bears upon pedagogy from descriptive, physiological, and experimental psychology; from the history of education; from ethics, and from 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.

* Absent in 1911-12.

The students of this department 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 a well-equipped and up-to-date High School. There is a decided advantage in observing work where there are several teachers of each grade. Visits are made under the direction of the Instructor at intervals throughout the year.

Graduates of the Preparatory School and students who have otherwise satisfied the College Entrance Requirements of the University, may be admitted to the Course in Education; and after satisfactorily completing the course will be granted a diploma entitling the holder to the three years' professional certificate issued by the Territorial Board of Education and renewable without examination.

Those students who take the course in Education subsequent to one or more years of the college course will receive in addition to the professional diploma, a certificate from the University testifying to their collegiate standing. If the course in Education is taken subsequently to the Junior college year, the degree of Bachelor of Pedagogy may be conferred upon the student on the recommendation of the Head of the School of Education.

Students entering the College of Letters and Arts with a view to a subsequent course in the School of Education, may take any of the courses outlined in the General List; or they may select, subject to the approval of the Head of the School of Education and the Schedule and Curriculum Committee, a combined course of study designed to prepare them for the pro-

fession they have chosen, subject to the requirements of the College.

General Science Course. The first year's course will be the same as the first year in the School of Science. The next two years must include Biology 1, 2, 3 and 5; Physics 1 and 2; Geology 1, 2, and 6; and a minimum of 17 hours selected with the approval of the Head of the School.

Description of Courses in the School of Education

Education

First Semester.

1. *History of Education.* Education in the Orient, the ancient classical nations, and in Europe before and after the Reformation, including discussions of great educational leaders. Reference texts: Monroe and Painter. *Education in the United States.* Educational conditions in colonial, revolutionary, and reorganization periods. Study of leading educational institutions and state systems. Influence of the church on education. Dexter's *History of Education in the United States*, reference text. 5 hrs.

First Semester.

2. *Orthoepy.* The purpose of the work in orthoepy is to give a scientific basis for teaching the sounds of the language, an intelligent use of the dictionary, and the cultivation of the voice. The subject is viewed under the following topics: Vocal physiology as the basis for 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. Spécial 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: Hodgins' "A Study of Spoken Language." (Not given in 1911-12.) 3 hrs.

Second Semester.

3. *School Management.* The fundamental laws of the school. The law evolving the organism. The organism executing the law. Influence of social combinations. School economy. Text: Sutton's *School Management*. 3 hrs.

First Semester.

4. *General Method.* In the general view of the subject, consideration is given to the nature and principles of education; the teaching process; analysis and synthesis; induction and deduction; empirical and scientific method; concentration; the educational value of apperception; the doctrine of interest; correlation; theory of the culture epochs, etc. Consideration is given to the use and abuse of text-books, and to the best literature on the subject of General Method. Reference texts: White's "Elements of Pedagogy", Thorndike's "Principles of Teaching", "McMurray's "General Method." 5 hrs.

First Semester.

5. *Special Methods.* In this course application of the general principles is made, and steps pointed out in teaching the various school subjects. 5 hrs.

Reading. Nature of reading, its general and comparative value. Analysis of the reading pro-

cess. Mental steps in expression. Reading as a mode of thinking. Relative importance of silent and oral reading. Various methods of teaching reading. Supplementary reading.

Language. Theories of language origin. Means of communication preceding language development. Relation of language to thought. How the child learns his vernacular. Methods of presenting language in the grades. Technical grammar.

Spelling and Penmanship will receive attention from the standpoint of Method.

Numbers. Special stress is placed upon the development and close relation of the various phases of arithmetic. Psychological 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. Practical presentation of the important subjects of fractions and percentage. 5 hrs

Second Semester.

6. *Special Methods. Geography.* The scheme of concentration with geography as the center. What it includes as a science. 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 type forms. Use and abuse of text-books, and maps. Importance of local geography. Consideration of a course of study in geography for the grades. Correlation of history with 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 text-books in history.

Physiology and Hygiene. The need of practical work in this important subject will be presented. Relation of health to the work of life. Study of physical defects in school children. School room hygiene. The necessity for adequate ventilation of the school room, and for rest and recreation. Suggestions for right living in the home. Discussion of tuberculosis, cause and effects, prevention and cure. Study of the work of “fresh air” schools and the general playground movement.

Child Study. Attention is given to different 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. Lectures, readings, discussions. 5 hrs.

*Philosophy**First Semester.*

1. *Psychology.* The general subject matter of psychology. Prevailing methods in psychological study. Relation of psychology to other subjects. The brain and nervous system as the physical basis of conscious activity. Conditions of effective mental action—consciousness, attention, habit. Study of sensation. Investigations of the processes of knowing involving a study of presentation—perception; representation—memory and imagination; reflection—judgment. Titchener's Text-book of Psychology. 5 hrs.

Second Semester.

2. *Psychology.* Continuation of first semester work. Course 1 or equivalent required for admission to this course. General operations of the mind—acquisition, cultivation of the acquisitive faculties; assimilation, — conception, reasoning, imagining, willing; reproduction, or the creation and expression of thought and feeling in the physical, intellectual and moral life. Attention is given in the study of psychology to its bearing upon character, and to the application of its principles in education, sociology and other subjects. Lectures and readings on psychic phenomena, and the power of suggestion as showing the relation of mind over body. Titchener and various reference texts. 5 hrs.

First Semester.

3. *Ethics.* Theoretical ethics. Aim and motive of action, free agency, problem of evil in the world. Schools of Hedonism, Rigorism, Rationalism.

Christian ethics. Application of theory through the various institutions of life, friendship, home, marriage, civil society, state, and a consideration of man's ethical relation to the lower animals. Text, Muirhead's "Elements of Ethics." Reference text, Sidgwick's "History of Ethics." 2 hrs.

First Semester.

4. *Logic.* History of Logic, nature, terms, propositions, deductive and inductive methods, logical analysis and criticism of fallacies. Text, "Elements of Logic." Jevons-Hill. 3 hrs.

The Commercial School

PRINCIPAL: Josephine S. Parsons.

STUDENT ASSISTANT: Alice L. McMillin.

The courses offered in the Commercial School are open, as electives, to students who have completed three years of High School work and as technical work leading to a diploma, to graduates of high schools, or of academic preparatory schools.

Experience has proved that for students in this department, thorough training in prescribed preparatory (high school) work is essential.

Immaturity has been found a serious obstacle to satisfactory progress, and for this reason the standard of requirements for entrance has been made more rigid than heretofore.

The regular courses offered are Stenography, Accounting (elementary and advanced), Commercial Spanish (correspondence and conversation) and the Elements of Business Law.

For those desiring more extended knowledge, the following courses will be given: Higher Accounting, Money and Banking, Financial History of the United States.

Under exceptional circumstances, special students are admitted to classes in this department.

A diploma is given to those fulfilling all requirements.

Description of Technical Courses

First Semester.

A. (1). *Stenography.* Principles; formation of out-

lines; sound analysis of words; unvocalized outlines; sight reading of moderately difficult shorthand (engraved extracts from writings of good English authors); business letters. 5 hrs.

Second Semester.

- A. (2). *Stenography*. Open only to those who have satisfactorily completed Course A. (1). Sight reading of engraved extracts from the works of standard English writers on law, science, history, etc.; Rapid dictation of miscellaneous matter; accurate recording of evidence; verbatim reporting. Standard of speed 100 words per minute. Special stress laid upon the reading of notes. In both courses A(1) and A(2) a typewritten transcript is required which must be accurate and correctly spelled and punctuated. 5 hrs.

First Semester.

- A. (1). *Accounting*. From the fact that all book-keeping is based upon the same general principles, and the requirements of different houses necessitate a different elaboration of the system, the following points are emphasized: Introduction of practical forms from the beginning; relation of accounts and their uses; practice work illustrated by continuous business; thorough drills in ledger closing, balance sheets, statements, etc.; introduction of cash, sales, invoice and bill books as books of original entry, in the early part of the work; special rulings; special drills, the receiving and giving of actual business papers. The work of the first semester embraces the keeping of records for wholesale and retail houses. 5 hrs.

Second Semester.

- A. (2). *Accounting*. This is a continuation of Course A(1), and instruction is given in the keeping of records for commission houses, manufacturing plants (voucher system), and national banks. Books and papers used are such as are employed in modern business life. 5 hrs.
- A. (1). *Commercial Spanish — Correspondence and Conversation*. All letter forms and business papers used in commercial intercourse between English and Spanish-speaking peoples are made the subject of thorough class-room drill, the object of the course being to give equal facility of expression—verbal or written—in either language.

Second Semester.

- A. (2). *Commercial Spanish — Correspondence and Conversation*. Continuation of Course A(1). Practice is given in the construction of every known type of letter. A general discussion of topics bearing on the text, conducted in Spanish, is a part of the daily work of the class.

Both of the above described courses are open to students who have had one full year's previous work in Spanish.

First Semester.

Elements of Business Law. To quote from the excellent text used in this course: "An effort is made to state as concisely and clearly as possible the leading and fundamental principles of business law, and in place of extended, abstract explanation of them, to substitute simple concrete examples,

showing them in their actual application to business transactions. In order that the conclusions drawn in these examples may be verified and not rest upon mere conjecture, the examples have, for the most part, been taken from cases decided in court."

The College Preparatory Department

The Sub-Freshman Classes.

With the beginning of the academic year 1909-10 the classes of the Preparatory School were reduced to three by the excision of the first or lowest class, corresponding to the ninth grade of a Public School; and the entrance requirements thenceforward presupposed a course of at least one year at a standard High School.

This excision expressed the intention of the authorities to reduce still further the classes in the Preparatory School until the proper end of the University as a vehicle of higher education had been attained; the rate of progress in that direction being intended to be commensurate with that of the high schools themselves. In maintaining a Preparatory Department the University does not pretend to offer an educational substitute for the High Schools of the Territory, many of which are producing a grade of work equal to that maintained in the leading schools in the States and in general accordance with the entrance requirements of the State Universities, but rather to supplement the work of those High schools which have not yet brought their curriculum up to the standard of the rest, until such time as the University authorities shall feel themselves warranted in confining the academic activities of the Institution to the work of the Colleges and their Schools.

In accordance with this intention the lowest class carried on during the year 1910-11 will for the future be removed from the courses of the University; and in consequence the Preparatory School, as such, will come to an end with the close of the present academic year.

Its place will be taken during 1911-12 and until further notice by a College Preparatory Department consisting of two sub-freshman classes, A and B, the courses of which will correspond in the main to the third and fourth years of a secondary school; the Department having for its definite purpose the academic preparation of students in conformity with the College entrance requirements as applying to the State Universities in general, with particular consideration of the requirements of the Colleges of Letters and Arts and of Science and Engineering in the University of New Mexico.

The work of the College Preparatory Department, therefore, will correspond in general terms with the courses of the two last years of a High School, differed therefrom in regard to the college entrance requirements in general and those of the Colleges of the University of New Mexico in particular.

The college entrance requirements of the University of New Mexico cover fifteen high school units as stated on page 44 of this catalogue, thirteen of which are prescribed and two elective. The prescribed units are distributed as follows:

- I. English, four years; including the study of Rhetoric, Composition and Literature as laid down in the regulations of college entrance requirements. 4 Units.
- II. History, two years; the first year being applied to the study of Ancient, Mediaeval and Modern History and the second year to the study of the History of the United States and American Civics. 2 Units.

- III. Language, two years; consisting of two years' study of any one of the following languages: French, German, Spanish, Latin or Greek.
2 Units.
- IV. Mathematics, three years; consisting of one year and one-half of Algebra, bringing the study of the subject up to the end of School Algebra; one year of Plane and Solid Geometry and one semester of Elementary Trigonometry and Conic Sections.
3 Units.
- V. Science, two years; consisting of one year of Physics and one semester each of any two of the following subjects: Chemistry, Physiology, Botany, Zoology, Physical Geography.
2 Units.

The Elective Subjects

The two elective units may be chosen from the list of the Languages or Science subjects or from those enumerated in the following list:

- A. Either, *One* of the following subjects:
- (1) Stenography.
 - (2) Bookkeeping.
 - (3) Mathematics.
- B. Or, *Two* of the following subjects:
- (5) Manual Training.
 - (6) Mechanical Drawing.
 - (7) Applied Arithmetic.
 - (8) Practical Geography.

Recommendations to Students

Students intending to enter one of the Colleges are earnestly recommended to plan their course of work in the Preparatory Department in accordance with the career or profession for which they intend to prepare themselves in College. Thus, if a student intends to enter the College of Letters and Arts he will do well to offer, if possible, four years of language. If he intends to proceed to a special degree he will be required to offer four years of Latin. If he intends to pursue a general course in cultural subjects the study of French is especially recommended and next to that the study of German. For those designing to adopt the profession of teaching in New Mexico a knowledge of Spanish is particularly valuable.

Students who intend to enter the College of Science and Engineering will do well to select German for their prescribed subject, thereby equipping themselves for the study of Scientific German before entering College and thus fitting themselves better to pursue their special studies in Science. Special attention should be given to the completion of their preparation along scientific lines of study, and wherever it is possible, some knowledge of Latin is to be recommended.

Description of Courses Offered in the Preparatory College Division

English

- A. Continuation of the study of the English language and Literature, in accordance with the College Entrance Requirements.

One composition each week, narration, description, argument. 2 hrs.

Completion of the College Entrance Requirements in English and brief survey of English Literature, binding together the classics read in the three years. Texts for the year: Shakespeare's Macbeth; Burke's Speech on Conciliation with America; Milton's *l'Allegro* and *Il Penseroso*; Carlyle's Essay on Burns. 3 hrs.

- B. *First Semester.*

History of English Literature. 5 hrs.

Second Semester.

Review of English Grammar, in connection with the teachers' course in the School of Education. 3 hrs.

Mathematics

The courses are designed to bring the study of the subject up to the standard of the requirements of the colleges of the University. In general, they will be as follows:

- A. *First Semester.*

Advanced Algebra. A rapid review of equations of the first degree, followed by a thorough course

in involution and evolution and quadratic equations. Text: Slaught and Lennes, Advanced Course. 3 hrs

Plane Geometry. Lines and angles; rectilinear figures and the first fifteen propositions on the circle. 2 hrs.

Second Semester.

Advanced Algebra. Complex fractions; ratio, variation, and proportion; exponents and radicals; logarithms; progressions; binomial theorem as used in the expansion of binomials having integral or fractional, positive or negative exponents. Text: Slaught and Lennes, Advanced Course. 2 hrs.

Plane Geometry. The circle; ratio and proportion; similar polygons and areas of polygons. 3 hrs.

B. First Semester.

Geometry. The first four weeks are devoted to the completion of Plane Geometry which is followed by a complete course in Solid Geometry. 5 hrs.

Second Semester.

Plane Trigonometry. Solutions of plane triangles; essentials of goniometry; applications to surveying and navigation. Text: Lyman and Goddard. 3 hrs.

Conic Sections. This course is designed to give the pupil a thorough working knowledge of conic sections. Great stress is laid upon the solution of problems. 2 hrs.

History (Two-year Course).

A. General History.

First Semester.

Ancient History. The story of the nations from the earliest times up to the era of Charlemagne, with emphasis on those peoples and institutions which have contributed most directly to modern civilization. Text: Myer's General History. 5 hrs.

Second Semester.

From the Era of Charlemagne up to the present time. A general survey of the subject, with a somewhat closer study of European History during the last hundred and fifty years. 5 hrs.

B. United States History and Civics.

First Semester.

History of the United States, from the period of early colonization up to the present time. Text: Montgomery. 5 hrs.

Second Semester.

United States History continued, with special study of the history of the Territory of New Mexico. 2 hrs.

Civil Government in the United States. A course upon the constitution of the United States, with emphasis upon the various forms of civil government. 3 hrs.

Latin

- A. Daily drill in accidence and syntax; Latin translation three times weekly; Latin composition twice weekly. 5 hrs.

First Semester.

Caesar de Bello Gallico, Books I and II; accurate knowledge of the accidence of Public School Latin Primer Latin composition (First Latin Writer) continued to end of Simple Sentence.

Second Semester.

Sallust, Bellum Catilinae or Bellum Jugurthinum; Latin Syntax; Latin Composition (Compound Sentence). Texts: Bennet's First Latin Writer; Public School Primer (Longman's); Caesar de Bello Gallico; Sallust, Bellum Catilinae or Bellum Jugurthinum.

- B. Regular revision of Accidence and Syntax; Prose Translation, 2 hrs.; Verse Translation, 2 hrs.; Prose Composition, 1 hr. Total, 5 hrs.

First Semester.

Cicero, in Catilinam. Vergil, Aeneid, I and II, or selections.

Second Semester.

Cicero, De Amicitia, and one of the private orations. Ovid, selected pieces. Texts: Cicero, any standard text. Vergil, any standard Text, or Shuckburgh's Selections (Macmillan). Ovid, Shuckburgh's Selections (Macmillan) or Heatley's Selections (Longmans'). Composition; Second Latin Writer (Longmans'), or Sargent's Easy Passages for Translation (Clarendon Press).

Greek

- A. Grammar and Composition. The common forms, idioms, and constructions, and the general

grammatical principles of Attic Greek Prose. Translation into Greek of detached sentences and very easy continuous prose. 5 hrs.

- B. Grammar and Composition continued. Reading of Xenophon's Anabasis.

When Greek is not taken as a Preparatory subject, the studies described above will be included in the first two years of the College Course.

German

- A. First Steps in German. Essentials of grammar. Reading of about 200 pages of easy German stories. Conversation begun. Simple verse memorized. 5 hrs.
- B. Composition, conversation, and reading a prose author and one of Lessing's dramas. Reading and memorizing Schiller's ballads. 5 hrs.

Spanish (2 Units).

- A. An elementary study of Spanish covering a year's work in the language. This should comprise: (1) Careful drill in pronunciations, an accurate study of inflections and conjugations, agreement of adjectives, participles and a knowledge of the regular and the more common of the irregular verbs, in the indicative and subjunctive tenses. (2) Ability to translate at sight ordinary Spanish into English, and easy prose into Spanish. (3) Familiarity with at least a limited vocabulary of spoken Spanish. (4) Translation and reading of about 150 pages of simple Spanish prose. 5 hrs.

- B. A study of the language covering a second year

in the study of Spanish. This should comprise (1) An accurate pronunciation, and ability to converse in Spanish on familiar subjects. (2) A thorough knowledge of the forms of the language, with much drill in syntax. (3) The translation of about 500 pages of Spanish into English, and ability to translate with ease English prose into Spanish. (4) An accurate knowledge of the inflections and conjugations. 5 hrs.

French (2 Units).

A. An elementary study of French, with emphasis on the following points: (1) Careful drill in pronunciation (Matzke's Primer is strongly recommended). (2) A knowledge of the more simple inflections and conjunctions, including use of article, partitive sign, agreement of adjectives and past participles, and knowledge of the regular and the most common irregular verbs. (3) Drill in translating English into French, and ability to translate at sight easy prose from English into French. (4) Reading of about 200 pages of French prose with translation into English. 5 hrs.

B. An advanced study of French, for a second year. The course should include: (1) A thorough mastery of French pronunciation. (2) Careful drill in inflections and conjugations, with study of grammar completed. (3) Abundant practice in composition and conversation, based on texts read. (4) Reading and translation of about 600 pages of French. 5 hrs.

Physics (1 Unit).

1. The required unit includes an amount of class work represented by Carhart and Chute's High School Physics, or Millikan and Gale's First Course in Phys-

ics. The instruction in the class room should be supplemented by four hours per week in the laboratory throughout the school year. 5 hrs.

Chemistry ($\frac{1}{2}$ Unit).

1. To secure one-half unit credit the student must have had a semester's work in descriptive Chemistry, covering both the metals and non-metallic elements, and their common compounds. $2\frac{1}{2}$ hrs.

Physiology and Hygiene ($\frac{1}{2}$ Unit).

The nature of protoplasm, the cell and its contents, the tissues, the anatomy of the human body, the physiology and hygiene of digestive, circulatory, respiratory, muscular, and nervous systems. Bacteria, the conditions necessary for their growth, methods of fighting them, sanitation.

One period weekly, at least, should be devoted to dissection or the microscopic examination of tissues. Text-book recommended: Conn and Budington's Advanced Physiology and Hygiene. 5 hour course.

Natural Science (2 Units).

1. *Botany* $\frac{1}{2}$ Unit. Special attention to the structure and morphology of phanerogamous plants. Complete written descriptions and the classification of a certain number of phanerogams are required. This work should be supplemented by lectures and demonstrations on the histology of phanerogamous tissue and on the structure and embryology of typical cryptogams.

2. *Zoology*, $\frac{1}{2}$ Unit. Dissections should be made of the representative forms of the main groups of the animal kingdom. In this work written descriptions and

drawings are required. In the use of the text and by means of lectures the evidence of a gradual development of animal forms will be reviewed. Principles and methods of classification illustrated by reference to collections.

3. *Elementary Physical Geography, 1 Unit.* A detailed study of the atmosphere, the ocean and the land forms, with special reference to their influence on each and on the distribution of life. Two hours each week must be devoted to laboratory work and four hours in recitation. Field work is considered part of the course and credit will be allowed when field trips are taken and written up. Notebooks for laboratory and field work will be considered part of the examination.

Shop Work.

Both Semesters.

- A. *Shop Work.* Five hours per week of bench-work and work on the lathe in wood and iron. One hour lecture and four hours' work in the shop each week. 2½ hrs.

Mechanical Drawing.

Both Semesters.

- A. *Mechanical Drawing.* Five hours per week in the use of drawing instruments, lettering, geometrical and free-hand drawing. One hour lecture and four hours drawing each week. 2½ hrs.

Students

COLLEGE

Graduate Students.

Allen, Walter Roland	Pride, Myrtle
Bounimovitch, Marc	Stephan, Leon B.
Harsch, Rose	Sterling, W. D.

Seniors.

Karsten, Karl G.	Pickard, Julia B.
Lovelace, Lora M.	Schreiber, Alice C.
Parrish, Marie L.	Seder, A. Raymond

Juniors.

Fergusson, Erna	Miller, John Wickliffe
De Wolf, Edward Von K.	Pickard, Florence
Lembke, Charles H.	Sewell, Robert T.
Marsh, Harold E.	Mudgett, Leon H.

Sophomore.

Anspach, Eldred V.	Kieke, Lillian M.
Cook, William Coburn	Koon, Clarice E.
Everitt, Evelyn	Lane, Elizabeth M.
Forbes, Fred B.	Ramsay, Ellen M.
Gladding, Raymond D.	Seder, E. Stanley
Kelly, Clyde	Sterling, Lena F.
Von Dorn, Ellice Claire	

Freshman.

Armijo, Juanita	Brown, Oscar
Abbott, Lyle	Calkins, Fred
Arens, Ralph Waldo	Doran, Ed
Boldt, Ira V.	Hall, Ernest Wilfred
Brandt, Eulalia Bell	Harkey, Corbett T.

Harkness, Leslie M.
Higgins, Matthias
Higgins, William J.
Hill, Harold J.
Howell, Adele
Huning, Dolores F.
Leupold, Arno Karl
Munroe, David B.

Rosecrans, Gladys G.
Sargent, John E.
Seder, Florence M.
Smith, Charles Roy
Spitz, Frank
Steenburg, Jesse C.
Walker, Gertrude
Youngberg, Fred A.

Special.

Beck, T. J.
Bernard, Charles L.
Cassatt, Grace D.
Gee, William Henry
Hamilton, Edwin C.

Otto, Chester
Patterson, James J.
Ringland, Frank C.
Sherman, Edith
Shimer, James M.

NORMAL DEPARTMENT.

Armijo, Teresa
Jordan, Goldie E.
Schroeder, Erna Louise

Noyer, Helen
Pickard, Julia B.
Roberts, Cherange S.

COMMERCIAL DEPARTMENT.

Armijo, Juanita
Brandt, Eulalia
Boatright, Charles C.
Chavez, Ambrosio
Frasier, Elsie K.
Harkey, C. T.
McMillin, Alice L.
Murphy, Les E.

Nicklas, Sophia
Rose, Ralph L.
Sargent, John E.
Shupe, La Charle
Silva, Joseph L.
Ulibarri, Victor
Youngberg, Fred A.

Twenty-two others attended some courses in the Commercial Department.

PREPARATORY DEPARTMENT.

Second Year.

Brachvogel, Aline D.	Redfield, James J.
Davila, Isidore, Jr.	Ruman, Fannie Flora
Hinds, Allie Blanch	Skinner, Viola M.
Olds, Earl	

Third Year.

Allen, Jay K.	Lawrence, Edna W.
Arens, Winfried B.	Lembke, Charlotte E.
Boldt, Irene A.	Littrell, Isaac P.
Brown, Louise J.	Nichols, James C.
Collins, Eula J.	Postel, Pauline
Cox, Hazel Bernice	Skinner, James C.
Espinosa, Ramon	Smith, Mabel W.
Hall, Mariana	Vincent, Velma H.
Hamilton, James Guy	Wagner, Mildred
Hunt, Albert S.	Walton, Joseph K.
Kelly, Iva Cleo	Weber, Charles M.

Fourth Year.

Becker, Frieda C.	McCollum, Laura H.
Blankenship, Glenn	McCollum, William A.
Boone, Cecilia	Menaul, Paul Lynn
Carlisle, Hugh A.	Wilkinson, Jackson Heath
Childers, Agnes L.	Yrisarri, Edward C.

SUMMER SCHOOL.

Adams, Bernice B.	Boldt, Irene A.
Allen, Matilda	Doran, Ed.
Arens, Winifred B.	Von Dorn, Ellice
Baier, Florence	Fergusson, Erna
Bixler, Allene	Gee, William H.

Harsch, Rose	Parrish, Marie
Hartmann, Treasure	Pratt, Charlotte S.
Herron, Jane	Shimer, James M.
Huning, Dolores	Schreiber, Alice C.
Hunt, Albert S.	Seder, Arthur R.
Kelly, Iva C.	Strome, Aura F.
Kieke, Lillian M.	Swayne, Alma
Miller, C. F.	de Tullion, Violetta C.
Oberholtzer, W. S.	Walton, Joseph K.
Nash, Vera	Ward, Helen R.

SUMMARY.

College.

Graduate Students	6
Seniors	6
Juniors	8
Sophomores	13
Freshmen	26
Special	10
School of Education	5
Commercial School	15

Preparatory

Fourth Year	10
Third Year	22
Second Year	7

	128
Summer School	30
Total	158
Names repeated	21

Net total 137

Alumni Association

OFFICERS FOR 1910-11.

President—Thomas F. Keleher, Jr., '02.
Vice-President—Lillian Spitz Bigler, '10.
Secretary and Treasurer—Wm. Wroth, '09.
Chairman Executive Committee — Violetta de
Tullion, '10.

Adams, Bernice Brown, '10 (Teacher). Artesia, N. M.
Adams, Katherine Orbin, '94 (Teacher Public
Schools) Los Angeles, Calif.
Alger, Mabel, '97 (Mrs. Bruce Kinney)
..... Topeka, Kans.
Allen, Anna May, '06 Grand Junction, Colo.
Allen, Walter R., '10 (Assistant Instructor Univer-
sity of N. M.) Albuquerque, N. M.
Anderson, Mabel E., '00 (Mrs. H. B. Allen)
..... Flushing, N. Y.
Atkeson, Walter R., '03 (Forestry Service)
..... Bishop, Calif.
Barth, Freda, '01 (Mrs. Taylor) ... Los Angeles, Calif.
Bean, Ray, '04 (Dentist) San Francisco, Calif.
Becker, Louis Carl, '03 (Cashier First National
Bank) Belen, N. M.
Bell, Thomas Sidney, (Formerly Rhodes Student,
Attorney) Tacoma, Wash.
Bendradt, Rev. T. A., M. S., '00 (Minister)
..... Turners Falls, Mass.
Bieghler, Harriet Kyle, '03 (Teacher) .. Gallup, N. M.
Bittner, Harvey P., '01 (Newspaper Reporter) ...
..... Seattle, Wash.

- Bliss, S. Mabel, '01.....Albuquerque, N. M.
 Boatright, Stella, '04.....Albuquerque, N. M.
 Booth, Helen, '95 (Deceased).
 Borradaile, Grace (Teacher). Old Albuquerque, N. M.
 Bowden, Bessie, '01 (Music Teacher). Lawrence, Kans.
 Bowie, Morris Ramsey, '03 (Physician). Paonia, Colo.
 Brewer, Nellie C., '02 (Attorney). Albuquerque, N. M.
 Bronson, Gilbert, '04 (Railroad Service).....
Winslow, Ariz.
 Brooks, Herbert, '99 (Manager San Jose Market)..
Albuquerque, N. M.
 Brooks, Lewis C., '98 (Manager American Oyster
 Co.).....South Norwalk, Conn.
 Brown, Katherine D., '09 (Teacher)....Gallup, N. M.
 Bryan, Hugh M., '10 (Rhodes Student to Oxford
 1910-1913).....Albuquerque, N. M.
 Bryan, Kirk, '09 (Graduate Student Yale Univer-
 sity).....New Haven, Conn.
 Buchanan, Bessie, '95 (Mrs. Nelson).. Winslow, Ariz.
 Butts, Francis, '01 (Mrs. Stevenson).....
Albuquerque, N. M.
 Childers, Gladys McCaw, '03 (Mrs. E. J. Alger)..
Albuquerque, N. M.
 Clayton, Deo M., '00.....Albuquerque, N. M.
 Clayton, Edmund Mills, '96 (Physician).....
Albuquerque, N. M.
 Coghill, George Ellett, '99 (Professor of Biology,
 Denison University).....Granville, Ohio
 Craig, Minnie E., '02.....Brooklyn, N. Y.
 Creel, Nannie Fern, '10 (Teacher Public Schools)..
Albuquerque, N. M.
 Crocker, Bertha, '01.....California
 Cunningham, Kate Carthage, '07 (Mrs. H. L. Ben-
 ham).....Williams, Ariz
 Custers, Maud E., '99 (Teacher).....St. Louis, Mo.

- Custers, Ruby, '01.....Albuquerque, N. M.
 Davis, Harriet K., '09 (Teacher High School)....
Las Vegas, N. M.
 De Tullio, Stella D., '09 (Teacher) .. San Jose, N. M.
 De Tullio, Violetta, '10 (Teacher)Duranes, N. M.
 Dieckmann, Bruno E., '02 (Violin Instructor).....
Denver, Colo.
 Dieckmann, Lisa C., '06 (Mrs. Thomas Danahy)..
Albuquerque, N. M.
 Duckworth, Lucile, '03 (Mrs. McCrary).....
Roswell, N. M.
 Edie, Lucy L., '09 (Teacher).....San Jose, N. M.
 Emmons, Grover C., '09 (Law Student Vandervilt
 University).....Nashville, Tenn.
 Espinosa, Marie, '05 (Teacher).....Barelas, N. M.
 Everitt, Edyth L., '98 (Teacher Public Schools)...
Albuquerque, N. M.
 Everitt, Olivia.....Albuquerque, N. M.
 Faber, Lena, '05 (Mrs. William Cote).....
Albuquerque, N. M.
 Fergusson, Erna, '06 (University of N. M.).....
 Fitch, Hereford, '98.....Hollywood, Calif.
 Fitch, James G., '99.....Hollywood, Calif.
 Fox, Anna Isabel, '10 (Teacher) ... San Rafael, N. M.
 Fox, Florence L., '03 (Stenographer).....
Albuquerque, N. M.
 Graves, Maud C., '05 (Supervisor Manual Training)
San Bernardino, Calif.
 Hall, Sarah M., '06 (Mrs. Harold Moore).....
Albuquerque, N. M.
 Halloran, Etta C., '01 (Mrs. Wm. A. Hackley)....
Berkeley, Calif.
 Halloran, Francis, '99 (Mrs. O. N. Marron).....
Albuquerque, N. M.
 Halloran, Ralph A., '02 (Chemist)... Richmond, Calif.

- Hamm, Josephine, '95 (Mrs. Williamson).....
Douglas, Ariz.
- Harding, Maynard C., '97 (Physician)....Ault, Colo.
- Harrison, Genevieve B., '10 (Mrs. Dunlavy).....
Santa Fe, N. M.
- Harsch, Rose M., '07 (Stenographer U. S. Forestry
 Service).....Albuquerque, N. M.
- Hazeldine, Lucy, '00 (Mrs. W. C. Dame).....
City of Mexico
- Hazeldine, May, '04 (Mrs. J. W. Pettyjohn).....
Long Beach, Calif.
- Heald, Clarence S., '05 (Stenographer S. Pacific
 R. R.).....San Francisco, Calif.
- Heald, Elizabeth, '05 (Assistant in Biology Univer-
 sity of California).....Berkeley, Calif.
- Herrick, Harry N., '00 (Chemist, University of Cali-
 fornia).....Berkeley, Calif.
- Hodgin, C. E., '94 (Principal Normal Department
 and Dean, University of N. M.) .Albuquerque, N. M.
- Hoffman, Dorothy L., '06 (Mrs. Apt)....Belen, N. M.
- Holden, Blanche, '97 (Mrs. Morgan).....
Omaha, Nebraska
- Huggett, Lillian G., '06 ('Teacher Girls' School)..
El Paso, Texas
- Hughes, Elizabeth, '00 (Mrs. Clarence French)....
Rock Creek, Ohio
- Hughes, Lou, '02 (Stenographer Government Ser-
 vice).....Washington, D. C.
- Hunt, Mabel C., '02 (Mrs. M. Summers).....
Albuquerque, N. M.
- Huntzinger, Rose, '04 (Mrs. Thos. Hughes, Jr.)...
Albuquerque, N. M.
- Ilfeld, Lawrence A., '06.....Boston, Mass.
- Irwin, Lloyd, '05 (Electrical Engineer) .Medford, Ore.

- Irwin, Sarah Frances, '03 (Mrs. Bradford).....
Elk City, Okla.
- James, Mary, '94 (Mrs. Daniel Scruggs)..S. America
- Jasper, Anita M., '07.....Pasadena, Calif.
- Johnson, Dr. Douglas W., '01 (Assistant Professor
 Physiology Harvard University).....
Cambridge, Mass.
- Johnson, Eva W., '01 (Trained Nurse).....
Los Angeles, Calif.
- Johnson, Ida, '01 (Mrs. Linus Shields).....
James Hot Springs, N. M.
- Keleher, Eugenia, '08 (Teacher Public Schools)...
Albuquerque, N. M.
- Keleher, Margaret M., '06 (Teacher Public Schools)
Albuquerque, N. M.
- Keleher, Thomas F., '02 (Clerk Bank of Commerce)
Albuquerque, N. M.
- Keller, Allan F., '08 (Postal Service).....
Albuquerque, N. M.
- Kempenich, Henry, '96 (Merchant)..Holbrook, Ariz.
- Kieth, Jessie, '94 (Mrs. Ruth).....Pomona, Calif.
- Krawinkle, Laura, '01.....Los Angeles, Calif.
- Kunz, George G., '96 (Physician)....Tacoma, Wash.
- Lee, Lawrence F., '10 (Yale University).....
New Haven, Conn.
- MacDonald, May, '99 (Mrs. R. S. Goodrich)....
Los Angeles, Calif.
- Magnusson, Gustave A., '03 (University of Wisconsin)
Madison, Wis.
- Maltby, Frank S., '99 (Deceased).
- Manwarin, Edna, '02 (Mrs. M. F. Mason).....
Newkirk, Okla.
- Maxon, J. G., '01 (Physician).....Chicago, Ill.
- Mayo, Joseph G., '06 (Expert Miner)...Kelly, N. M.

- McCallum, Agnes C., '06 (Mrs. Paul Scott)
Albuquerque, N. M.
- McClellan, Eunice, '10 (Teacher) San Jose, N. M.
- McGuinness, Michael J., '09 (Law Student)
Albuquerque, N. M.
- McLaughlin, Gladys G., '09 (Mrs. Bryson Biggs) ..
Miami, Ariz.
- McMillen, Jessie, '01 (Mrs. A. B. Stroup)
Albuquerque, N. M.
- McMillin, Sadie M., '09 (Teacher) ... San José, N. M.
- Menaul, Elizabeth, '94 (Mrs. Nicholson)
Bridgeport, Okla.
- Messenger, J. Franklin, '00 (Dean School of Edu-
 cation University of Vermont) Burlington, Vt.
- Mordy, Grace, '10 (Teacher) Hillsboro, N. M.
- Muensterman, Carl A., '96 (Chemist) Peoria, Ill.
- Murphy, Beatrice, '07 (Teacher) Newlon, Mont.
- Nash, Nellie E., '07 (Mrs. Lloyd Hunsaker)
Albuquerque, N. M.
- Nelson, Raymond, '02 South Africa
- Niles, Edith, '00 Chicago, Ill.
- Niven, Isobel O., '07 (Mrs. Wm. Roe Murphy)
Pomona, Calif.
- Nowlin, Frances, '94 (Mrs. Wittmer) (Deceased).
- Parrish, Marie L., '09 (University of N. M.)
Albuquerque, N. M.
- Parsons, Josephine S., '04 (Principal Commercial
 School, University of N. M.) Albuquerque
- Pearce, Lenore, '06 Albuquerque, N. M.
- Perkins, Blanche I., '06 (Teacher Public Schools) ..
Albuquerque, N. M.
- Pinney, Vida, '07 (Teacher Public Schools)
Albuquerque, N. M.
- Pole, Frances, '00 (Librarian) Palo Alto, Calif.

- Powers, Elizabeth, '03 (Mrs. Peck).....
Albuquerque, N. M.
- Pratt, Helen, '04 (Mrs. Frank Kerzman).....
Albuquerque, N. M.
- Price, Robert C., '06.....Santa Fe, N. M.
- Pride, Lena Myrtle, '10 (Assistant Instructor Uni-
 versity of N. M.).....Albuquerque, N. M.
- Ridley, Furn, '05.....Albuquerque, N. M.
- Rogers, Clarence E., '09 (Graduate Student Univer-
 sity of California).....Berkeley
- Ross, Edmund, '09 (Civil Engineer).....
Albuquerque, N. M.
- Saulsberry, Joshua J., '10.....Alamogordo, N. M.
- Schreiber, Alice C., '09 (University of N. M.).....
Albuquerque
- Self, Wm. Dennis, '08 (Member Legislature).....
Little Rock, Ark.
- Shelds, Linus L., '02 (Superintendent San Diego
 Land Grant).....Jemez Hot Springs, N. M.
- Sleight, Beatrice I., '06 (Teacher Public Schools)..
 Smith, Fleda E., '05.....Los Angeles, Calif.
- Spicer, Eva M., '09.....Monmouth, Ill.
- Spitz, Lillian, '09 (Mrs. E. N. Bigler)..
 Artesia, N. M.
- Stamm, Roy A., '93 (Merchant)..
 Albuquerque, N. M.
- Stover, Roderick, '99 (Electrical Engineer).....
Albuquerque, N. M.
- Sturges, Lloyd, '05.....Albuquerque, N. M.
- Sweet, Emma Belle, '06 (Teacher Public Schools)..
Santa Fe, N. M.
- Tascher, Irma, '02 (Nurse in Michael Rees Hos-
 pital).....Chicago, Ill.
- Tascher, John Ralph, '03 (Northwestern University
 Law School).....Chicago, Ill.
- Telfer, Elizabeth, '06 (Teacher Public Schools).....
Albuquerque, N. M.

- Terry, John B., '99 (Chemist) Richmond, Calif.
 Thompson, Hazel Dell, '10 Pittsburg, Pa.
 Towner, Norah, '02 (University of Arizona) . . Tucson
 Turner, Mary W., '01 (Mrs. C. W. Ward) (Deceased).
 Tway, Mata E., '01 (Teacher Public Schools)
 Albuquerque, N. M.
 Vann, Florence, '99 Albuquerque, N. M.
 Vann, Katy, '01 (Mrs. Howard Blair)
 Albuquerque, N. M.
 Van Wagner, Oliver J., '02 Syracuse, N. Y.
 Vaughn, Ada, '05 (Teacher Public Schools)
 Albuquerque, N. M.
 Vaughn, Etta C., '95 (Mrs. W. J. Oliver)
 Black Rock, N. M.
 Wakefield, Mabel, '98 (Mrs. Moffit) . . Tucson, Ariz.
 Walker, Edith, '10 Albuquerque, N. M.
 Walker, Gertrude, '09 (University)
 Albuquerque, N. M.
 Walsh, Jennie, '09 (Teacher)
 Old Albuquerque, N. M.
 Ward, Charles W., '97 (Attorney) . . Las Vegas, N. M.
 Weinzirl, John, '98 (Professor of Biology University of Washington) Seattle
 Werner, Norah, '02 (Mrs. R. W. Gilchrist)
 Albuquerque, N. M.
 Winders, Lillian M., '09 (Teacher) . . Tularosa, N. M.
 Worth, W. H., '05 (University of Chicago)
 Chicago, Ill.
 Wroth, James S., '01 (Electrical Engineer)
 Santa Rita, N. M.
 Wroth, William B., '09 (Railroad Shops)
 Albuquerque, N. M.

Index

	Page
Absences	35
Accounting	110
Administration, Officers of	6
Admission	44, 109, 113
Algebra	80, 117
Alumni Association	32
Alumni Directory	129
Analytical Geometry	80
Attendance, Requirements of	34
Summary of	123
Banking	109
Biology	86
Board of Regents	2
Boarding Expenses	38
Bookkeeping	110
Botany	86, 123
Buildings, etc.	12
Bulletins of the University	21
Bureau of Appointments	38
Business Law	111
Calculus	80
Calendar	40
Certificates	29
Change of Courses	35
Chemistry	84, 123
Civil Engineering	92
Civics	119
Class Standing	37
College of Letters and Arts	46

	Page
College of Science and Engineering	55
College Entrance Requirements	44
College Preparatory Department	113
Commercial School	109
Committees of Faculty	7
Committees, General	30
Courses, General Description of	64 to 112
Preparatory	113, 117
Degrees, Conferring of	29
Departments of the University	42
Diplomas	29
Dismissal	35
Dormitories	13
Educational Courses	103
Education, School of	100
Elective Work	47
Electrical Engineering	95
Engineering, School of	60
English	64, 117
Entrance Requirements, College	44
Environment	15
Ethics	107
Examinations for High Schools	28
Expenses	33
Extension Work	25
Faculty of the University	3
Fees	33
Forensics	76
French	70, 122
General Information	9
General List of Subjects	49
Geology	90
Geometry, Analytic	80
German	74, 121

INDEX

139

	Page
Greek	68, 120
Grading, Methods of	36
Graduate Students	27
Graduation Requirements	47, 57
High School Examinations	28
History of University	9
History	65, 119
Hydraulic Engineering	93
Latin	66, 119
Library	19
Logic	108
Mathematics	80, 117
Mechanics	81
Mechanical Drawing	93, 124
Mechanical Engineering	97
Meteorology	85
Music, Department of	77
Officers of Administration	6
Oratory	76
Organizations, Student	32
Orthoepy	103
Periodicals	19
Philosophy	107
Physical Chemistry	85
Physics	81, 122
Physiology	81, 123
Piano Music	78
Preparatory Department	113
Preparatory Units	114
Prescribed Work	47, 58
Prizes and Scholarships	33
Psychology	107
Publications, Students'	32

	Page
Recommendations to Students	116
Regents, Board of	2
Registration	34
Rhodes Scholarship	33
Scholarships	33
School of Science	57
School of Engineering	60
Science, Preparatory	122
Self-Support	31, 38
Semester Hour Defined	47
Shop Work	99, 124
Spanish	72, 111, 121
Special Students	62
Steam Engineering	97
Stenography	109
Structural Engineering	94
Student Employment	31
Student Organizations	32
Students, List of	125
Sub-Freshman Classes	113
Summer School	26
Surveying	92
Thesis	48, 63
Tours of Inspection	61
Trigonometry	80, 118
Tuition and Fees	37
Unit, Preparatory	44, 114
University Prizes	33
Violin Music	78
Vocal Music	77
Zoology	86, 123