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## DIRECTIONS FOR CORRESPONDENCE

## For further information on the University program, address inquiries as follows:

General Information, Additional Literature, Entrance, Credentials, Calendar, Registration, Transcripts, Academic Matters Office of Admissions


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## CAMPUS OF THE UNIVERSITY OF NEW MEXICO

KEY TO BUILDINGS

1. Administration
2. Aeronautical Laboratory
3. Bandelier Hall
4. Biology (Parsons Hall)
5. Carlisle Gymnasium
6. Chemistry
7. City Reservoir
8. Dining Hall
9. Faculty Homes, Sorority and Fraternity Houses
10. Fine Arts
11. Golf Course
12. Hadley Hall
13. Heating Plant
14. Hodgin Hall
15. Hokona and Marron Halls
16. Infirmary
17. Inter-American Affairs
18. Library
19. Lecture Hall.
20. Maintenance Shop
21. Mesa Vista Dormitory
22. Mechanical Engineering 23. Public Health Laboratory 23. Public Health Lab 25. Rodey Hall
23. Sara Raynolds Hall
24. Music Building
25. Sorority and Fraternity Houses

29 Stadium
30. Student Union
31. Swimming Pool
32. Tennis Courts
33. University Press 34. Yatoka Hall


# The <br> <br> University of New Mexico <br> <br> University of New Mexico <br> <br> BULLETIN 

 <br> <br> BULLETIN}


## Fifty-Fifth Catalog Jssue <br> 1946-47

## CALENDAR OF THE UNIVERSITY

SUMMER SESSION, $194^{6}$
New Students, Tests and Instructions June 25, Tuesday
Registration.
June 26, Wednesday
Instruction Begins; Late Registration Fee Applies. ..... June 27, Thursday
Change of Program Fee Applies . July 2, Tuesday
Fourth of July Holiday .July 4, ThursdayRegistration Closes; Last Day for Additionsto Programs of Study. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . July 9, Tuesday
Session Ends ..... August 21, Wednesday
FIELD SESSION
Field Session in Anthropology-
Registration on University Campus . June 26-August 7,Wednesday-Wednesday
SEMESTER I, 1946-47
Freshman Program (Attendance Required) ..... September 18-21, Wednesday-Saturday
Registration .September 21, Saturday
Instruction Begins; Late Registration Fee Applies ..... September 23, Monday
Registration Closes; Last Day for Additions to Programs ofStudy; Change of Program Fee Applies..October 5, Saturday
Mid-semester . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . November 16; Saturday
Thanksgiving Recess Begins. . . . . . . . . . . . November 20, Wednesday, 9:oo p. m.
Classes Resume . November 25, -Monday
End of Twelfth Week; Last Day for Removal ofIncomplete Grades....... December 14, Saturday
Christmas Recess Begins
Classes Resume .....  January 6, Monday
Pre-examination Week
. January 20-27, Monday-MondaySemester Final Examinations . . . . . . January 27 -February 1, Monday-SaturdaySemester Ends. . . . . . . . . . . . . . . . . . . . . . . . . . . . February _1, Saturday, 6:00 p. m.
SEMESTER II, 1946-47New Students, Convocation and Adviser Assignments....February 3, Monday
Registration.............................................................Instruction Begins: Late Registration Fee Applies..... February 5, WednesdayRegistration Closes; Last Day for Additions to Programsof Study; Change of Program Fee Applies. . . . . . . . . February 18, Tuesday
Mid-semester. April 2, Wednesday
Easter Recess Begins. .April 2, Wednesday, 9:00 p. m.
Classes Resume. .April 7, Monday. End of Twelfth Week; Last Day for Removalof Incomplete Grades.April 30, Wednesday
Preexamination Week...................... . May 21-28, Wetnesday-Wednesday
Semester Final Examinations.......... May 28-June 4,- WWednesday-WednesdaySemester Ends. . . . . . . . . . . . . . . . . . . . . . . . . . . . . June 4, Wednesday, 6:00 p. m.-
Baccalaureate Service. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . June 8, Sunday
Commencement Exercises . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . June 9, MondayJune 9, Monday
TABLE OF CONTENTS
Page
The Regents of the University ..... 6
Administrative Officers ..... 7
Faculty ..... 8
General Information ..... 17
Admission ..... 26
Student. Expenses ..... 34
General Academic Regulations ..... 47
College of Arts and Sciences ..... 58
School of Inter-American Affairs ..... 65
Departments of Instruction ..... 78
College of Engineering ..... 118
Departments of Instruction ..... 126
College of Education ..... 135
Departments of Instruction ..... 148
College of Fine Arts ..... 160
Departments of Instruction ..... 168
College of Pharmacy ..... 181
Departments of Instruction ..... 183
General College ..... 187
Other Divisions of the University ..... 191
Graduate School ..... 191
Summer Session ..... 192
Field Sessions ..... 192
Extension Division ..... 192
Naval Reserve Officer's Training Corps ..... 193
Bureau of Business Research ..... 193
Information for Veterans ..... 195
Degrees and Diplomas Conferred ..... 200
Enrollment Statistics ..... 205
Index ..... 206
Application for Admission (End of Catalog)

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Marie Pope Wallis, B.A., University of California at Los Angeles; M.A., M.S., University of Southern California. Instructor in Modern Languages.
Paul Walter, Jr., B.A., Stanford University; M.A., University of New Mexico; Ph.D., Stanford University. Professor of Sociology and Head of the Department.
Henry B. Waugh, Lieutenant (j.g.) , U.S.N.R., B.A., Western Reserve University. Assistant Professor of Naval Science and Tactics.
George Walter White, B.A., University of New Mexico. Assistant Dean, College of Education. Associate Professor of Education, and Head of the Division of Physical Education and Health.
Cecil Vivian Wicker, B.A., M.A., University of Michigan; Ph.D., University of Pittsburgh. Assistant Professor of English.
Anna T. Winecoff, B.A., M.A., University of Wyoming. Instructor in English.
Dorothy Woodward, B.A., Randolph-Macon Woman's College; M.A., University of Colorado; Ph.D., Yale University. Associate Professor of History.
Everly John Workman, B.S., Whitman College; Ph.D., University of Virginia. Professor of Physics, Head of the Department, and Administrative Director of Research Projects.

- Dudley Wynn, B.A., University of Texas; M.A., Ph.D., New York University. Professor of English. Editor of The New Mexico Quarterly Review. Director of Publications.

Franklin R. Zeran, B.A., M.A., Ph.D., University of Wisconsin. Admissions Officer and Director of Vocational Information.
Gustave Zielasko, B.A., College of Wooster; M.A., University of Michigan. Instructor in Physical Education.

## CO-OPERATING SCHOOLS FOR PRACTICE TEACHING

albuquerque public high school, Glen O. Ream, m.A., Principal LINCOLN JUNIOR HIGH SCHOOL, Glen Borland, M.A., Principal LONGFELLOW SCHOOL, J. Buren Linthicum, M.A., Principal WASHINGTON JUNIOR HIGH SCHOOL, Edward W. Lighton, M.A., Principal

## SUMMER SESSION OF 1945

Anna Davis, Teacher, John Marshall School. Instructor in Demonstration School.
Lois Ditrmer, Teacher, Monte Vista School. Instructor in Demonstration School.
Charles E. Garner, M.A., University of Missouri. Visiting Instructor in Education.
Alice M. Gasaway, M.A., Oxford University. Visiting Instructor in English. Eldred Harrington, Ph.D., University of Southern California. Visiting Instructor in Education.
Louise Lee, Teacher, Longfellow School. Instructor in Demonstration School. J. Buren Linthicum, M.A., University of Southern California. Instructor in Demonstration School.
Richard Mock, Principal, North Fourth Street School. Instructor in Demonstration School.
Alberr Morris, Ph.D., Harvard University. Visiting Instructor in Sociology. Gladys Nisbet, M.S., University of New Mexico. Visiting Teaching Assistant in Biology.
O. O. Winther, Ph.D., Stanford University. Visiting Instructor in History. Fanny Woodruff, M.A., University of Iowa. Visiting Instructor in Elementary Education.

## SPECIAL AND NON-RESIDENT EXTENSION INSTRUCTORS

Wesley Freeburg, B.A., New Mexico Normal University; M.A., University of New Mexico. Superintendent of Schools, Taos. Instructor in Education by Extension.
J. K. Reid, B.A., M.A., University of New Mexico. Head of Science Department, Carlsbad High School. Instructor in Education by Extension.
Ivah M. Shallenberger, B.A., New Mexico College of Agricultural and Mechanic Arts; M.A., University of New Mexico. Instructor in Spanish by Extension.
R. P. Sweeney, B.A., Columbia College; M.A., University of New Mexico. Superintendent of Schools, Santa Fe. Instructor in Education by Extension.

## FACULTY

## TEACHING ASSISTANTS

## John Coy, Teaching Assistant in Mathematics Department.

Enrique Montenegro, Assistant in Art Department.
Mrs. Marian Roberts, Teaching Assistant in English Department.

## GRADUATE FELLOWS

Harold L. Amoss, Jr., B.A., University of North Carolina. Department of
Anthropology.
Jim Mae Cor, B.S., West Texas State College. Department of Psychology. John Coy, B.A., University of New Mexico. Department of Mathematics.
Tom DeVaney, B.A., M.A., University of New Mexico. Department of Biology.
Robert W. Duke, B.S., University of New Mexico. Department of History.
Patricia Hannah, B.A., University of New Mexico. Department of Government.
Josephine Hawrylko, B.S., Adelphi College. Department of Biology.
William Reed, B.A., Montana State University. Department of Biology.
Robert Spensley, B.S., University of New Mexico. Department of Biology.


ADMINISTRATION BUILDING

## GENERAL INFORMATION

The purpose of higher education and of the University of New Mexico is the preparation of youth in body and mind for useful, intelligent, and noble living in a world which seeks as its ultimate goal the dignity and freedom of mankind. Through the media of instruction, research, and original investigation, the University endeavors to place the resources of higher education of the state at the disposal of its citizens.

## ACCREDITING

The University has been a member of the North Central Association of Colleges and Secondary Schools since 1922. Approval of the Association of American Universities was given to the University in 1933, and the American Association of University Women recognized the University in the same year. In 1937, the College of Engineering was approved by the Engineering Council for Professional Development.

## SITUATION

The University is situated in Albuquerque, a metropolitan area of 75,000 inhabitants. The elevation of the campus is over 5,000 feet above sea level. The climate is mild throughout the year. Albuquerque is noted for its dry and sunny weather.

The city is on the main line of the A. T. \& S. F. Railway and is served by transcontinental bus and air lines. U. S. Highways 66 (the Will Rogers Highway) and 85 intersect at Albuquerque.

Historic Santa Fe is approximately sixty miles to the north, and the picturesque Indian pueblos of Taos, Jemez, Isleta, and Acoma are within easy driving distance.

## HISTORY

The University of New Mexico was created by an act of the Territorial Legislature in 1889, opened as a summer normal school on June 15, 1892, and began full-term instruction on September 21 of the same year. Its development in the fiftyseven years since its inception has been extraordinary. The 20 acres allotted by Territorial Legislature for a campus have become more than 400 ; buildings have increased from a single structure to thirty. Enrollment has grown from one college

## GENERAL INFORMATION

enrollee in 1895-96 to more than 1,800 registered in the fall of 1945.

The development of new colleges and divisions has kept pace with the physical growth of the institution. The College Department became the College of Literature and Arts in 1898, later changing to its present title of College of Arts and Sciences. The College of Engineering opened in 1906, and the Graduate School and Extension Division, in 1919. In 1928, the College of Education was created; in 1935, the General College; and in 1936, the College of Fine Arts. A unit of the United States Naval Reserve Officers Training Corps was established May 20, 1941. The School of Inter-American Affairs was instituted during the same year. A Navy V-12 unit was established July 1, 1943. In 1945, the following new divisions became an active part of the University program: the College of Pharmacy, the Division of Governmental Research, and the Bureau of Business Research. A program leading to the bachelor's degree in social work and an academic curriculum for local cadet nurses were added to the basic curricula in the same year.

University administrators have for many years realized that the situation of the University of New Mexico provides it with a wealth of source material in the historical and archaeological background of the nation, and that its proximity to the Indian, Spanish, and Mexican cultures makes it a natural place for the study and appreciation of those cultures. They have, therefore, encouraged the development of Southwestern and Latin American studies and research. Some tangible evidences of this interest are found in the uniform architectural style (a modification of the Indian Pueblo), which has been described as "The outstanding example of the effective use of regional architecture in the United States," the incorporation of the School of Inter-American Affairs, the maintenance of the Chaco Canyon site for anthropological research, the presence on the faculty of outstanding Latin American artists and scholars, the awarding of honorary degrees to a group of distinguished Mexican educators, and the various examples of Indian, Mexican, and Spanish-American painting, carving, and weaving to be found throughout the campus buildings.

## GOVERNMENT AND SUPPORT

The government of the University is vested in the Regents and the Faculty. Five Regents are appointed by the Governor of the state for a term of four years; the Governor and the Super-
intendent of Public Instruction are ex-officio members of the Regents.

The University is supported chiefly by appropriations made by the State Legislature, by income from the rental of lands granted to it by the Federal Government, by the income from royalties on the oil taken from these lands, and by student fees.

## CAMPUS AND BUILDINGS

The campus of the University is in the eastern environs of the city of Albuquerque, and within ten miles of the Sandia Mountains. The University's architectural style, a modification of the Indian Pueblo, was adopted in 1905. The campus buildings include: Hodgin Hall, housing the College of Education; the maintenance shop; residential halls: Hokona, Marron Hall, Yatoka, Bandelier, and Mesa Vista; Rodey Hall (the campus theater); Music Building; Chemistry Building; Hadley Hall (the engineering building); Sara Raynolds Hall (home economics building); Press Building; Fine Arts Building; Parsons Hall (biology building); Lecture Hall; Carlisle Gymnasium; President's Residence; Dining Hall; Stadium Building; Administration Building; State Public Health Laboratory; Student Union Building; Mechanical Engineering Building; Central Heating Plant; the Library; Inter-American Affairs Building; Aeronautical Laboratory; and the Infirmary.

## RECREATIONAL FACILITIES

Outdoor recreational facilities on the campus include a new eighteen-hole golf course, baseball diamond, swimming pool, tennis courts, and riding stables. The U. S. Forest Service maintains a recreational area for popular winter sports in the nearby Sandia Mountains.

## THE LIBRARY

Building. The University Library offers excellent facilities for students. It is housed in a pueblo style building, completed in 1938 , which has an ultimate book capacity of 225,000 volumes, and can provide reading and study facilities for 700 persons, in five large reading rooms, smaller special rooms, and individual study units. Also included in the building are seminar rooms, faculty offices, special collection rooms, a well-equipped photographic laboratory, and a vault for rare materials.

Resources. Library collections include 103,200 cataloged and accessioned volumes, several thousand other cataloged serials and pamphlets, 2,000 filing boxes of manuscripts, documents and other archival material, 22,400 feet of microfilm, 5,300 maps, several thousand pamphlets and pictures, and 26 sound recordings. These resources provide adequate study and research facilities for undergraduate needs and for the special fields in which graduate work is offered.

Special Collections. The Coronado Library is an extensive collection of books and other materials concerning the history and culture of the Southwest in general and New Mexico in particular. It contains state publications, books about New Mexico and by New Mexico authors, several hundred bound volumes of photostats of the archives of Spain, Mexico, and New Mexico, letters, manuscripts, documents, and the state archival materials assembled by the U. S. Historical Records Survey.

The Van de Velde Collection of Mexican materials consisting of 8,686 bound volumes, 93 maps, and fifty linear feet of pamphlets was purchased in 1939 by a special appropriation of the State Legislature. It contains much rare and valuable material dealing with the history, archaeology, ethnology, geology, folklore, literature, and art of Mexico.

The Catron Collection, of 9,574 volumes, is an extensive and valuable library begun by Thomas B. Catron and deposited with the University Library by his sons, C. C. Catron, T. B. Catron, F. A. Catron, and J. W. Catron. Outstanding items are several hundred Spanish and Mexican publications of the sixteenth to nineteenth centuries, and 375 filing cases and books of letters and documents dealing with territorial New Mexico events, particularly the land grant system of the state.

The Otero Collection, given by former Governor and Mrs. Miguel A. Otero in 1939, contains 465 volumes on the Southwest and gencral fields, as well as a valuable manuscript and museum collection.

The Field Collection of old Spanish and Mexican art, which includes 96 pieces of silver and 69 other art objects, was given by the estate of Will B. and Mary Lester Field in 1939.

Use of the Library. The Library is open to all students in all departments of the University. In addition to serving the students and faculty, and subject to their needs, the Library is available for use by citizens of the state, by permission.

Books withdrawn for home use may be kept two weeks, with the privilege of renewal. Reserved books may be used only
according to rules posted at the Reserve Desk; reference books may not be taken from the Reference Room. Fines are charged for the late return of books.

Hours. The Library is open from 8:00 a. m. to 5:30 p. m. and 7:00 to 10:00 p. m., Mondays through Fridays, and from 8:00 a. m. to 5:00 p. m., Saturdays.

## MUSEUMS AND EXHIBITIONS

ANTHROPOLOGY MUSEUM
(Administration Building) A museum hall, in connection with the Department of Anthropology, houses varied material of anthropologic interest. The prehistoric cultures of the American Southwest, Mexico, and Peru are well represented. Study collections of the European Paleolithic, Mesolithic, and Neolithic periods are on display. In the ethnologic field, type exhibits portray the material cultures of the Eskimo, North Pacific Coast, Plains, and Southwestern areas. Recent additions to the Museum collections include material from the Pueblo of Pccos, New Mexico, and the Schweitzer Collection of Navaho Blankets.

GEOLOGY MUSEUM
(Administration Building) The Geology Museum has a double purpose: it is designed to serve the general public and to supplement the instructional program. Exhibits include a systematic series of minerals, a stratigraphic series of fossil animals and plants, a paleontologic series of fossil and modern invertebrates, and systematic series of igneous and sedimentary rocks. Other notable features are a type collection of New Mexico meteorites, an exhibit illustrating how fossils are preserved, displays of strategic minerals and of polished ores, and an unusually fine fluorescence-phosphorescence exhibit.

## FINE ARTS GALLERY

A continuous exhibition program throughout the school year in the Gallery of the Fine Arts Building is made possible by the joint sponsorship of the Department of Art and the Art League of New Mexico. Three annual exhibitions are scheduled regularly: Albuquerque Artists, the Student Exhibition, and the Faculty Exhibition. Besides these there are numerous group and one-man shows. New Mexico stands among the first of the states in the number of recognized artists resident within its borders. Their presence makes it possible for the University to maintain a high standard of excellence in its exhibitions.

Four important murals may be seen on the campus: several panels each by Raymond Jonson and the late Willard Nash, on view in the Fine Arts Building; four panels in the University Library by Kenneth M. Adams, A.N.A.; and a large fresco in the Administration Building by Jesús Guerrero Galván, recently Latin-American Artist in Residence.

## THE UNIVERSITY AND THE VETERANS

While the University of New Mexico is and will continue to be an institution operating for the purpose of granting academic degrees, it has recognized that the growing enrollment of veterans of World War II creates problems which must be met. These have to do largely with offerings particularly needed by veterans, requirements for admission, and credit for experience and training while in the services.

For information on admission and service credit, refer to page 30. For answers to questions on veterans' legislation and other general information see "Information for Veterans."

## STUDENT ORGANIZATIONS

Associated Students. The students of the University constitute a general student body organization which is called "The Associated Students of the University of New Mexico," and which controls the other organizations of general interest.

Associated Students Council. The Associated Students Council is the administrative agent of the Associated Students of the University. Representatives of the Council are elected from the student body.

Student Senate. The Student Senate is the other governing board of the student body. It is composed of a representative from each organization on the campus.

Associated Women Students. The Associated Women Students is composed of all regularly enrolled women students of the University. The purpose of the organization is to secure uniform and broad social interests among University women. It is governed by a council, the members of which are representatives of all women's organizations on the campus.

[^0]Kappa Mu Epsilon-national honorary mathematics fraternity
Kappa Omicron Phi-national professional fraternity for students of home economics
Khatali-senior honorary society for men
Mortar Board-national honorary organization for senior women
Phi Alpha Theta-national honorary fraternity for students of history
Phi Kappa Phi-national honorary scholastic society
Phi Sigma-national organization for the promotion of interest in research in biological sciences
Pi Gamma Mu-national honorary fraternity for students of the social sciences
Pi Lambda Theta-national organization for women in College of Education
Pi Sigma Alpha-national honorary fraternity for students of political science
Sigma Alpha Iota-national professional organization for the recognition of merit of students in the music department
Sigma Tau-national honorary fraternity for students in the College of Engineering
Sophomore Vigilantes-honorary organization for sophomore men
Spurs-national honorary organization for sophomore women
Tau Kappa Alpha-national honorary debating society
Theta Alpha Phi-national honorary dramatic organization for University students and alumni
Theta Chi Delta-national honorary fraternity for chemistry students
For information in regard to other student organizations and activities, see the Freshman Handbook.

Social Fraternities, Sororities, and Other Groups.
Fraternities: Kappa Alpha, Kappa Sigma, Pi Kappa Alpha, Sigma Chi, Sigma Phi Epsilon (inactive), Sigma Alpha Epsilon
Sororities: Alpha Chi Omega, Alpha Delta Pi, Chi Omega, Kappa Kappa Gamma, Pi Beta Alpha (local)
Other social groups: Independent Men, Phrateres, Town Club and Veteran's Association.
Fraternity and sorority relations are controlled by the Interfraternity Council and the Panhellenic Council respectively. These organizations also take prominent places in student activities.

## GENERAL INFORMATION

## RELIGIOUS ACTIVITIES

All the religious denominations are represented in Albuquerque. All of the churches welcome the University students and invite them to share in their religious and social life. The University holds to a policy of non-sectarianism, but encourages its students to affiliate with the religious organizations with which their families are connected, and to attend church services regularly.

## MILITARY TRAINING

A Naval Reserve Officers Training Corps, established by the Navy Department, is in operation at this University. It offers the opportunity for Navy R.O.T.C. students to qualify for a commission as Ensign in the U. S. Naval Reserve upon successful completion of the courses prescribed. The student who so qualifies has the privilege of going on active duty in the Navy, for a specified period, with the opportunity to be commissioned in the Regular Navy if so recommended by his Commanding Officer; if the successful student does not desire a Regular Commission in the Navy, he may request to be placed on inactive duty when so eligible.

Special rules and regulations are in effect for the duration of the national emergency.

## STUDENT ATHLETICS

All athletic activities are under the direction of the Athletic Council, and are subject to the approval of the faculty and the President of the University. The University also sponsors an intramural program, designed to supplement the prescribed courses in physical education.

Intercollegiate athletics are governed by regulations of the Border Intercollegiate Athletic Conference, of which the University is a member.

## STUDENT PUBLICATIONS

The Lobo, published weekly, and The Mirage, published annually, are managed entirely by students. The editor and the manager of each publication are elected by the Student Publications Board, and work under the direction of this board. The Dry Dock is published periodically by the students enrolled in the Department of Naval Science and Tactics, and is under the direction of the professor of Naval Science and Tactics. The Thunderbird magazine is a bi-semester student publication.

## GENERAL INFORMATION

## ALUMNI ASSOCIATION

The Association is maintained through the coöperative efforts of the University and the Alumni Association, and is primarily governed by an executive committee elected annually by alumni. All graduates, and all former students with ten hours or more of credit, are eligible for membership in the Association.

The New Mexico Alumnus, official organ of the Association, is published monthly except July and August, and is edited by the managing director of the Association and his staff. At the start of 1946, it had a total distribution of more than 2,000 a month.

Maintenance of a list of alumni who served in the armed forces during the World War II, and of alumni casualties has been a venture of first importance for the Association.

The Association's offices are in rooms 6, 7, and 8, Student Union patio.

## ADMISSION

## APPLICATION AND CREDENTIALS

All communications regarding entrance should be addressed to the admissions officer. The University requires that each new student file an application for admission (blank to be found in the back of this catalog or obtained from the admissions office). In addition, he must have his credentials sent directly to the admissions officer from the high school or college previously attended; transcripts in the possession of students are not acceptable for entrance purposes. In order to be assured of admission, the student must have his credentials on file in the admissions office at least one month in advance of the beginning date for the session in which he plans to enroll. No student may enroll until the required credentials are on file and approved.

## FRESHMEN

Each freshman is required to present an application for admission (see above) and to have a transcript of his high school record sent to the admissions officer by the principal or superintendent. If the high school does not have a form for transmitting the high school record, forms may be obtained by addressing the admissions office.

Each freshman is also required to take a series of tests which are administered just prior to registration (see the Calendar). These tests sometimes reveal information which is used in recommending the college which the freshman should enter, the courses which he should undertake, and the amount of work which it appears advisable for him to attempt. If the tests reveal a marked weakness in preparation, the University authorities may require that the student take up a special program of work in the General College before he may enter upon a degree course in one of the regular colleges, or he may be required to take certain non-credit courses designed to correct such weaknesses.

The University recommends that freshmen be at least 16 years of age.

## ADMISSION BY CERTIFICATE

High schools accrédited by regional accrediting associations, state departments of education, or state universities are accredited by the University of New Mexico.

## ADMISSION

Graduates of accredited high schools may be admitted to the University upon presentation of transcripts showing graduation from a four-year high school with 15 units (or graduation from a senior high school with 11 units); such units to be distributed as outlined in the following paragraphs. The term "unit" means the completion of a course of study consisting of recitation periods of at least 40 minutes each, held 5 times a week during 36 weeks.

Section I. Basic Requirements-7 units:
English-3 units
Social Studies-l unit (must include credit in U. S. History)
Laboratory Science-l unit (General Science is not accepted as a laboratory science)
Mathematics-2 units (Algebra must be one of the units offered)
Section II. Restricted Electives-4 units must be elected from the groups A-E below with no more than 2 units accepted from Group F:
Group A.-English, Public Speaking, Journalism, Speech
Group B.-French, Spanish, Latin, German, etc.
Group C.-Algebra, Plane Geometry, Solid Geometry, Trigonometry, General Mathematics
Group D.-General Science, Biology, Chemistry, Physics, Physiology, Geology.
Group E.-History, Geography, Sociology, Economics, Government
Group F.-Home Economics, Agriculture
Section III. Free Electives-4 units:
Any units accepted towards graduation from accredited high schools may be used as free electives.
NOTE: In the admission of graduates of senior high schools, no attention will be paid to the work done in the junior high-school except as that work is related to the requirements of Section I and Section II.

Students expecting to enter the College of Engineering must offer 3 units of Mathematics including second year Algebra and Plane Geometry. Solid Geometry and Trigonometry are recommended. Students expecting to enter the College of Pharmacy or majoring in Mathematics, Physics, Chemistry Geology, Pre-medic or Pre-dental courses must present $21 / 2$ units of mathematics which must include $11 / 2$ units of Algebra and 1 unit of Plane Geometry.

If the applicant is not a high school graduate, but has completed the 15 required units in an accredited high school, he may be admitted to the University upon the written recommendation of his principal or superintendent.

ADMISSION WITH ENTRANCE DEFICIENCIES
If a student has been graduated from an accredited high school but does not meet all the entrance requirements as outlined above, he may be admitted to the University on trial by the Committee on Entrance and Credits. Such students may enroll in any college (subject to results of the freshman entrance tests), and they will be allowed twelve months from the date of their first enrollment to make up entrance deficiencies.

Graduates of unaccredited or partially accredited high schools are expected, prior to registration, to take examinations to validate, or earn credit in, that portion of their work which is unaccredited or incomplete.

## REMOVAL OF ENTRANCE DEFICIENCIES

Students may make up deficiencies in entrance requirements: (1) by establishing high school credits in the courses concerned;
(2) by special examinations established by the Committee on Entrance and Credits; (3) by counting part of the work done during their first year in college towards entrance requirements. Five semester hours count as one unit. Course credit counted towards entrance requirements is not accepted toward a degree in the University.

Special consideration will be given to any applicant whose high school work has been interrupted.

## TRANSFERRING STUDENTS

The new student who has attended other colleges or universities should request the authorities at each institution attended to send an official transcript of his record to the admission_officer of the University. The student is also required to submit an application for admission (blank found at the back of this catalog). When the preparatory credits have not been accepted, or have not been reported on the college transcript, a transcript of the high school work will also be required.

After the application and transcripts have been received, an evaluation is made and a copy sent to the student. This copy should be retained for use at registration. It is not possible to give any information in regard to standing until the required credentials are on file.

Every new student is required to take the psychological examination prior to registration (see the Calendar).

Students from fully accredited institutions ordinarily will be given full credit for work transferred, insofar as the courses taken
are the same as, or equivalent to courses offered in the college in which the student enrolls in this institution.

Only an approximate evaluation can be made prior to registration, and all credit is tentative until the student has completed at least one semester of satisfactory work in residence.

Credits transferred from an accredited junior college will be accepted up to a maximum of 64 semester hours plus 4 semesters of physical education. In accepting junior college credits, no courses will be considered as above sophomore level.

Credit earned in unaccredited institutions is usually accepted on the same basis as by the state university of the state in which the institution is situated. Where it seems proper, examinations for the validation of credit may be required. No evaluation of credit from an unaccredited institution is made until the student has completed at least 12 hours in residence at this University.

Correspondence and extension credit from institutions which are not members of the National University Extension Association must be established by examination at this institution.

A student who is disqualified for re-registration in any other college or university, or whose grade-points earned total less than one-half the hours attempted, may not be considered by the Committee on Entrance and Credits for admission to the University of New Mexico until the period of his disqualification has expired, or until he has been out of school for one semester.

The Committee on Entrance and Credits will consider unusual cases on their merits.

## SPECIAL STUDENTS

Persons over twenty-one years of age who cannot meet the regular entrance requirements may be admitted as special students, provided they secure the permission of the instructors whose work they desire to take and the approval of the dean of the college concerned. Students over 21 who do not wish to work toward degrees at the University of New Mexico may also be admitted as special students under the same conditions, provided they have not attended any college or university during the semester immediately preceding their enrollment here. Applicants coming direct from high school will not be permitted to enter as special students. By virtue of his classification, the special student is not eligible for any degree, but may become a candidate ultimately by clearing his admission status to the satisfaction of the Committee on Entrance and Credits. (See Removal of Entrance Deficiencies.)

The student entering as a special should make application

## ADMISSION

on the form provided at the back of the catalog. If he intends to establish regular status here, he should present official transcripts of any high school or college credit which he may have earned previously. He may retain the classification of special student until he has accumulated 30 semester hours, after which he must declare himself, in writing, as a degree candidate, or a continuing special student. In the first case, he must attain regular status prior to his next registration; in the second, he will be allowed to register in courses as an auditor only, receiving no credit.

## UNCLASSIFIED STUDENTS

Students transferring from unaccredited or partially accredited institutions are unclassified until they have validated credit in accordance with the University regulations. Students who are temporarily absent from other institutions are also registered as unclassified. In such cases statements of honorable dismissal, including scholastic status and classification, are required from the last institutions attended.

## AUDITORS

Mature students may attend classes as arditors, without credit, with the permission of the instructors concerned and of the dean of the college in which most of the audited courses lie. Auditors are required to pay fees at the same rate as if enrolled for credit. They must, upon registration, declare themselves as auditors and may not change to a credit basis after the first four weeks of the semester. A student enrolled for credit in a course may not change to an auditing basis in the same course after the first four weeks of the semester.

## VETERANS

Special consideration is given to returning members of the armed forces. Credit for service training and experience is granted on the basis of measured educational achievement, in conformity with the procedures recommended by the North Central Association of Colleges and Secondary Schools and the American Council on Education. A maximum of 8 semester hours elective credit is allowed for basic or recruit training. Credit earned in specialized army and navy programs conducted by college and university staffs is allowed in accordance with the recommendations of the administering institution. Credit for
work done in formal training programs: is allowed in accordance with the recommendations of the American Council on Education or on the basis of examinations here. U. S. Armed Forces Institute correspondence courses may be established by examination in this University. The veteran has the opportunity to demonstrate his competence in any University subject, and to establish credit in that subject, by passing an examination as required by the Committee on Entrance and Credits. Military credits (other than those earned in accredited colleges or universities under military auspices) will not be entered on the student's record here until he has completed in residence one semester of a minimum of 15 hours' work.

In accordance with the desire of the University to assist veterans in furthering their education, a regulation has been adopted which permits the admission as special students, at the discretion of the dean of the college concerned, of persons at least 19 years of age who have been in military service and who cannot meet the regular entrance requirements. Such students are subject to all other regulations governing the status of special student. Veterans who are not high school graduates or are graduates of nonaccredited high schools may gain regular entrance to the University by taking the General Educational Development Tests (high school level) at this institution.

## GRADUATE STUDENTS

Refer to "Other Divisions of the University."

## REGISTRATION

## FRESHMAN PROGRAM

At the opening of each semester a "Freshman Program" is conducted. The purpose of this program is to acquaint the freshman with some of his fellows, to help him to feel more at home in new surroundings, to permit him to meet advisers and counselors, and to familiarize him somewhat with University methods and life. In addition to the preliminary registration and the various tests, numerous recreational and educational events are held.

Attendance Required. Attendance of all freshmen with less than 10 semester hours credit is required during the entire Freshman Program period, but transferring students who have less than 60 hours of college credit are advised to attend all meetings

## ADMISSION

except the tests. All new students are required to take the psychological test.

Time. The Freshman Program will be held at the beginning of each semester. (See the Calendar for dates.)

Tests for Freshmen. In order to make a comparison of the ability, training, and background of the different members of the freshman class, the University administers a series of intelligence, placement, and achievement tests. A medical examination is also required for each student. Deans and advisers consider these tests quite helpful to the consultation and guidance relationships with the new student. The tests are designed principally to reveal the student's aptitude for college work, and to assist in placing the student in courses of the proper level.

Every student registered in freshman English is examined as to his ability to use clear, correct, idiomatic English. No student can pass this test or continue in English 1 a who shows serious weakness in spelling, punctuation, grammar, diction, or sentence structure. Students who do not pass the test are enrolled in English A.

## MATERIALS NEEDED

Each student should bring his copy of the general catalog to registration. The freshman should have in his possession the notice of admission. The transferring student should have a copy of his evaluation of transferred work.

TIME OF REGISTRATION
Students are urged to register on the days set aside for registration (see University Calendar). The late registration fee is charged to each student who does not complete his registration on the specified days. Registration contemplates completing the entire procedure, including payment of fees. Prompt registration is at all times encouraged. No student may enroll late in any course unless he has the permission of the instructor concerned. A student may not be admitted to the University more than two weeks after the opening of a semester.

## REGISTRATION PROCEDURE

Details of the registration procedure are contained in a special notice issued by the admissions office, and distributed to students on the days of registration.

## COMPLETION OF REGISTRATION

When the student has followed the prescribed registration procedure, and has paid his fees, his registration is complete. The


## STUDENT UNION BUILDING

## ADMISSION

University will hold the student responsible for completion of the courses for which he has been enrolled, unless he obtains approval for a change in his registration.

CHANGE IN REGISTRATION
See "General Academic Regulations."

## MEDICAL EXAMINATIONS

A medical examination, including a Wasserman test and a tuberculin skin test, is required of each new student following registration. These tests are given without charge by the University physician, but students who, without valid reason, fail to keep their examination appointments will be fined. Health-seeking students are accepted at the University if, in the judgment of the University physician, their work does not endanger themselves or their associates. The University may refuse registration to, or cancel the registration of, any student who is physically unfit to carry on class work, or whose physical condition might be a menace to the health of other students.

## STUDENT EXPENSES

## TUITION AND FEES

All fees are due at the time of registration. A fee of $\$ 2.00$ will be assessed if registration is not completed on the days specified.
In addition to the matriculation fee of $\$ 5.00$, which is paid once by each student upon his first registration in the University, other fees are charged according to the number of semester hours in the student's course. Auditors pay fees at the same rate as if enrolled for credit.

REGISTRATION FEES, UNDERGRADUATE STUDENTS, PER SEMESTER

|  | More than six hours | Three to six hours | Three hours or less |
| :---: | :---: | :---: | :---: |
| Tuition* | \$40.00 | \$20.00 | \$15.00 |
| Health Fee | 3.00 |  |  |
| Student Activities Fee $\dagger$ | 9.36 |  |  |
| Student Bond Fee | 2.00 | 2.00 | 2.00 |
| Building Fee | 10.00 | 10.00 | 10.00 |
| Breakage Deposit $\ddagger$ | 5.00 | 5.00 | 5.00 |
|  | \$69.36 | \$37.00 | \$32.00 |
| *If a non-resident, add tuition | 75.00 | 40.00 | 15.00 |
|  | \$144.36 | \$77.00 | \$47.00 |

$\dagger$ Includes $\$ .86$ Federal Tax.

| Tuition* | \$40.00 | \$20.00 | \$15.00 |
| :---: | :---: | :---: | :---: |
| Health Fee | 3.00 |  |  |
| Student Bond Fee | 2.00 | 2.00 | 2.00 |
| Building Fee | 10.00 | 10.00 | 10.00 |
| Breakage Deposit $\ddagger$ | 5.00 | 5.00 | 5.00 |
|  | \$60.00 | \$37.00 | \$32.00 |
| *If a non-resident, add tuition | 75.00 | 40.00 | 15.00 |
|  | \$135.00 | \$77.00 | \$47.00 |

Note: Graduate students enrolled for thesis only pay a $\$ 15.00$ tuition fee, and breakage deposit.

[^1]OTHER FEES FOR SPECIAL SERVICES
Change in program after end of second week, except upon written request of the instructor ..... \$ 1.00
Late registration fee ..... 2.00
Late physical examination fee ..... 1.00
Fee for removal of Incomplete grade ..... 2.00
Examination for validation of credit, per course ..... 2.00
Other special examinations ..... 2.00
Examination for advanced standing, per credit hour ..... 2.50
Transcript of credits (extra copies $25 \phi$ each) ..... 1.00
Penalty for dishonored checks ..... 1.00
Diploma fee, bachelor's or master's degree ..... 10.00
Binding master's thesis, per copy ..... 1.50
Graduate Record Examination (Graduate students only) ..... 3.00
ADDITIONAL FEES
Individual music instruction (except vocal coaching), per credit hour ..... $\$ 11.25$
Vocal coaching, per credit hour ..... 22.50
Piano Ensemble: one half-hour lesson per week (l credit hour):
In group of two students, per student ..... 11.25
In group of three or more, per student ..... 7.50
Equitation, per semester ..... 20.00
Pipe organ rental, per semester ..... 12.00
Use of practice rooms (other than pipe organ):
1 hour"per day, per semester ..... 4.00
2 hours per day, per semester ..... 6.00
3 hours per day, per semester ..... 8.00
4 hours per day, per semester ..... 10.00
For Master Classes in piano and other instruments (or privateinstruction by visiting instructors) the University reserves theprivilege of charging special fees for instruction and practicerooms.

Non-Resident Tuition Fees. The 1941 Legislature passed a law defining the non-resident tuition requirements as follows:

A non-resident student shall be charged not less than One Hundred and Fifty Dollars (\$150.00) per year, based on a nine month school year; providing that any student having graduated from a non-resident high school shall be considered a non-resident unless he or she shall have spent not less than twelve (12) months in residence in the State of New Mexico after becoming

## STUDENT EXPENSES

twenty-one (21) years of age while not attending school, or whose parents are legal residents of the state.

Upon request of the University authorities, students must furnish proof of their residence in the state of New Mexico. If a person other than the parent is named as guardian, the student will be required to furnish evidence of court appointment.

Health Fee. The University maintains a full-time physician with offices in the Infirmary. All students enrolled for seven or more semester hours are eligible to consult him in case of illness or injury. The physician's office is reasonably well equipped with instruments and medicines, and any work which can be done in the office is financed by the semi-annual health fee. Major and minor surgery and critical illness will be referred to local physicians at the student's expense.

Student Activities Fee. The assessment of this fee is a voluntary action of the student body, through its organization, the Associated Students of the University of New Mexico. At registration, the University collects this fee as an accommodation to the Associated Students. The activities fee is distributed to the student organizations as shown in the Constitution of the Associated Students. Copies of the Constitution may be obtained from the personnel office:

Withdrawals and Refunds. All fees, except the matriculation fee, will be refunded to students voluntarily withdrawing from the University before the end of the second week of the session. Students voluntarily withdrawing later than the second week, but before the end of the eighth week of the semester, will be entitled to a refund of one-half of the tuition, and the breakage deposit. Students withdrawing after the eighth week and students withdrawing at any time under discipline or because of academic deficiencies, will be entitled to a refund of the breakage deposit only.

Estimate of Total Expense. The minimum amount necessary for expenses while attending the University of New Mexico for a semester is estimated as follows :

Tuition and fees .............................. $\$ 70.00$
Books and supplies .............................. 20.00
Board and room . . . . . . . . . . . . . . . . . . . . . . . . . . . . 200.00
Laundry (sent off campus) ...................... 25.00
Non-resident students should add $\$ 75.00$ to the tuition costs. Women students in residential halls are charged a recreational and social fee of $\$ 1.50$ per semester.

## DINING AND RESIDENTIAL HALLS

All matters pertaining to living accommodations for students are under the direction of the personnel office. Inquiries concerning living accommodations should be addressed directly to that office.

It is required that board and room and social fee be paid in advance at the comptroller's office. Receipts for these payments must be presented to the clerk at the dining. hall and to the proctor in the residential hall. Students not living in the residental halls, and other persons connected with the University, may procure meals at the dining hall if space is available.

## ROOM RESERVATION

After a student has been notified by the admissions officer that he is admitted, he should make written application to the personnel office for a room reservation in a residential hall. This application must be accompanied by a five dollar remittance, which will apply toward the first month's room rent. Should the applicant find it impossible to keep his reservation, he should notify the personnel office not later than one week before the first day of registration. In such cases the five dollar reservation fee will be refunded. All students occupying rooms in residential halls are required to take their meals at the dining hall. Dormitory residents must furnish their own bedding, linens, and curtains.

Upon receipt of the five dollar reservation charge and upon notification from the admissions officer that the applicant has been accepted for admission, the personnel office will send the applicant a receipt. Should there be any question concerning the applicant's admission, the 'receipt will be held and only a tentative reservation made.

## ROOM REGULATIONS

Dormitory rooms are available to undergraduate men and women students. A list of approved rooming places near the campus for men and all graduate students is published every semester by the personnel office. Women students are not permitted to room in houses where men are rooming.

Freshman women whose homes are not in Albuquerque are required to Iive in the University residential halls for one year. All undergraduate women whose homes are not in Albuquerque are required to live in the University residential halls or sorority houses.

Exceptions to this regulation include: special adult students;

## STUDENT EXPENSES

regularly enrolled students who are over twenty-one years of age, and registered for 6 hours or less; women students who are working for board and room in approved homes.

No woman student may change her place of residence without the consent of the dean of women. The University reserves the right to determine where a student may reside.

All occupants of residential halls must vacate their rooms by $5 \mathrm{p} . \mathrm{m}$. on the last day of the semester unless they expect to return for the following semester.

## RATES-RESIDENTIAL HALLS

Students who have made room reservations and have been notified of address of residential hall should report to that residence upon arrival. Students who do not have definite assignment should report immediately to the personnel office. Students should plan to time their arrival at the residential halls between $8 \mathrm{a} . \mathrm{m}$. and $10 \mathrm{p} . \mathrm{m}$.

Whenever a room is occupied for more than one-half month, the full rate for the month will be charged. For a fractional month less than one-half month, the rate is $50 \phi$ a night.

The following rates for residential halls and dining hall are subject to change whenever necessary to defray operating costs.
Women's Residential Halls-charges per calendar monthper person:
Room and Board:
Single Rooms:
Marron Hall ..... $\$ 45.00$
North Hall ..... 43.00
Center Hall ..... 42.00
Double Rooms for two:
Marron Hall, per person ..... 42.00
South Hall, per person ..... 42.00
Suites for four:
North Hall, per person ..... 40.00
Center Hall, per person ..... 40.00
Recreational and social fee per semester ..... 1.50
Men's Residential Hall-charges per calender month perperson:
Room and Board ..... $\$ 40.00$
Room only, when working for board elsewhere ..... 10.00

## RATES-DINING HALL.

Board only per calendar month for residents and non-
residents of the dormitories . . . . . . . . . . . . . . . . . $\$ 30.00$
Board only per day-less than a month . . . . . . . . . . . . . . . . 1.00
Single meals for guests:
Breakfast $\because$. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 25
Luncheon . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 35
Dinner . ...................................................... . . . . . 40
Dinner (Noon Sunday and holidays) . . . . . . . . . . . . . . . . . 75
Guests: With the consent of the proctor or chaperon, students may entertain guests overnight at the residential halls. The guest will be charged fifty cents ( $50 \phi$ ) per night. When a guest is to have meals at the dining hall, the clerk should be notified in advance, and the guest's meals must be paid for at that time.

Refunds. No refund is made on room rent. Refunds for board are made only for absences of seven or more consecutive days. These absences must be excused in writing by the dean of men or the dean of women, and with the approval of the director of the dining hall, who must be notified at the beginning of such an absence.

## STUDENT EMPLOYMENT

The University student employment office is maintained to aid those students who find it necessary to earn a part of their expenses while attending the University. Any student requiring part-time employment is requested to file an application with the personnel office. Applications for campus employment must be renewed each year.

The following principles are the basis of selection of candidates through the student employment office: (1) the establishment of the actual need of the student; (2) scholarship; (3) re-employment to be based on satisfactory service and scholarship.

## LOAN FUNDS

The University administers, under the direction of the Student Loan Committee, its own Student and Alumni Loan Fund and coöperates in the administration of several others.

The maximum amounts available from this fund respectively for sophomores, juniors, and seniors are $\$ 50, \$ 75$, and $\$ 100$, with the provision that the succeeding amount shall be loaned each year upon repayment by the student of at least half the sum pre-
viously borrowed. The fund is not set up to handle loans for amounts smaller than those mentioned in this paragraph.

The general rules applying to these loans are as follows:

1. The student must have been in residence at the University for at least one year.
2. He must be receiving grades of $\mathbf{C}$ or better in subjects which he is carrying; preference will be given to worthy students with the higher ratings in scholarship.
3. Students receiving loans will be required to give notes with endorsers as prescribed by the comptroller's office.

Other loan funds available to students at the University are: The American Association of University Women's Loan Fund; Revolving Loan Fund of the Ancient, Free, and Accepted Masons of New Mexico; Educational Loan Fund of the Grand Commandery of Knights Templar of New Mexico; The McGaffey Memorial Loan Fund of the Albuquerque Rotary Club; The Women's Club Loan Fund; The Altrusa Club Loan Fund; The Phrateres Loan Fund; and The Mortar Board Loan Fund.

## AWARDS AND SCHOLARSHIPS

Each spring seniors in most of the high schools of New Mexico take the New Mexico Statewide Test of Academic Achievement, sponsored by the University of New Mexico. To 50 seniors from the 100 with the best standing on the test, the University guarantees an opportunity to earn as much money as may be necessary to complete their freshman year, provided they enter the University the following fall and can show need of financial assistance.

An act of the New Mexico Legislature makes possible a number of tuition scholarships, equal to two per cent of the University enrollment of the previous year. These scholarships are allotted to New Mexico students who can show promise of good academic achievement and who can demonstrate the need of financial assistance.

Application for these scholarships and for work assistance should be made through the Student Employment Office.

Announcements of recipients of awards and scholarships is made by the President of the University, after recommendations have been made to him by the Committee on Prizes and Awards. A description of the awards follows with names of recipients for 1944-45 or 1945-46. Announcement of these awạds is made at a special assembly in the latter half of the spring semester.

The C. T. French Medal for Scholarship. Awarded to a graduating senior of the College of Arts and Sciences who has obtained during his last two years of continuous residence, the highest general average for scholarship in a program of not less than fourteen hours a semester. Mr. Thomas Gordon Bennett King.

The Katherine Mather Simms Memorial Prize in English. A cash prize consisting of the interest from a $\$ 250$ trust fund is awarded each year to a regularly enrolled undergraduate, who has been in residence at least one term preceding the time of the contest, on the basis of excellence in prose composition and on the quality of a competitive essay. The decision is made by the faculty of the English department and the dean of the College of Arts and Sciences. Miss Val Ann Pickett.

The George E. Breece Prize in Engineering. A cash prize consisting of the income from a $\$ 600$ prize endowment, which is awarded to a graduating senior in engineering who is enrolled for a full course. This award is made upon the basis of character, general ability, and excellence of scholastic record as shown during the last two consecutive years of residence in the University. Mr. Everett E. Zwicky, Jr.

The Ives Memorial Scholarships. Created in memory of Julia Louise Ives and Helen Andre Ives. The income from a $\$ 15,000$ fund is used to maintain three $\$ 200$ scholarships for women students. Candidates must be residents of New Mexico, preferably living in Albuquerque, in good health, of good moral character, of high scholastic standing, and they must intend to teach. The scholarships are awarded annually by the President of the University. Selection for the next academic year is made in July. Miss Georgene Violette Barte, Miss Evelyn Amelia Ellis, Miss Harriet Jane Johns, Miss Anna Olive Brennan.

The Marian Coons Kindness Award. A memorial prize consisting of the interest from a $\$ 750$ endowment fund, is given each year to the regularly enrolled senior in the Department of Home Economics who is voted the most kind by her classmates and teachers in that department. Miss Anne Elizabeth Reed.

The Chi Omega Prize in Economics. An annual prize of $\$ 15$ is awarded to the regularly enrolled woman student (Chi Omega members excepted) who has done the best work in Economics during the-college year. Selection is made on the basis of scholarship and general knowledge of the subject. Miss Cleo Fern Courtney.

## STUDENT EXPENSES

The Alfred Grunsfeld Memorial Scholarships. The sum of $\$ 5,000$ has been established as a perpetual trust fund, the income from which is used to maintain for men two scholarships at approximately $\$ 200$ each. These scholarships are decided upon at the same time as the Miriam N. Grunsfeld Scholarships and are governed by the same general conditions as given below. Mr. Jack Temple, Mr. Elliott B. Gose, Jr.

- The Miriam N. Grunsfeld Scholarships. Two scholarships of approximately $\$ 200$ each, maintained by a perpetual trust fund of $\$ 5,000$, for women.

The conditions governing the Grunsfeld scholarships are as follows: (1) To be eligible for the scholarships, students must be residents of the state of New Mexico. It is also required that, during the academic year immediately preceding the award, they shall have been in actual attendance at the University as full-time students; that they shall not be above the rank of junior; and that three of the recipients shall have been enrolled in the Department of History or the Department of Government and Citizenship (the fourth may be enrolled in any department of the University).
(2) In selecting the students to receive the awards, consideration is given to their general scholarship, and to their financial requirements.

The scholarships are paid in two equal installments, one at the beginning of the first semester, and the other at the beginning of the second semester, contingent upon maintenance of good scholastic record in the normal course of study. If the student fails to register for the second semester, an alternate may be selected. Miss Harriet Jane Johns.

The Philo S. Bennett Prize. The income from a fund of $\$ 1,200$ is awarded annually to a woman student at the beginning of the second semester of her freshman year, who is most worthy, who has resided in New Mexico for at least the preceding four years, and who will continue as a resident student in the University. Miss Luisa Manzanares.

The Harry L. Dougherty Memorial Prize in Engineering. A cash prize consisting of the income from a trust fund contributed by colleagues, students, and friends, as a memorial to Mr. Harry L. Dougherty, Assistant Professor of Civil Enginering, is awarded each year to the student in the College of Engineering, who has made the highest scholastic average in residence during his freshman and sophomore years, while carrying a normal course of study. Mr. Frederick J. Rink.

The Charles Florus Coan Award. The income from a trust fund donated by faculty and friends as a memorial to Charles Florus Coan, Ph.D., Professor of History and Political Science, is awarded annually, for excellence in scholarship, to a worthy student whose major field is history. The student is chosen by the faculty of the Department of History. 'Miss Edla Marie Halama.

The Rose Rudin Roosa Memorial Award. The income from a $\$ 1,000$ cash endowment is awarded each year to the upperclassman or graduate student in the Department of Government and Citizenship who has indicated the most positive interest in the development of good citizenship, in the opinion of his professors. A paper is required. Mr. Edward Dale McClaskey.

The New Mexico Section of the American Sóciety of Civil Engineers Award. A certificate of merit with entrance dues for junior membership in the American Society of Civil Engineers, together with a membership badge, is given to a graduating student in civil engineering who excels in scholarship, holds membership in the student section of the engineering society, is active in student engineering organizations, and who, in the opinion of his professors, shows promise of becoming a successful engineer. Mr. Richard Gatton Orcutt.

The Phi Kappa Phi Prizes. Two annual cash prizes of $\$ 10$ each are awarded to the man and woman who, while carrying a regular course of study, rank highest in general scholarship for the work of their freshman year. These prizes are announced eaich fall when the Phi Kappa Phi Freshman Honor Roll, which includes freshmen in the upper 5 per cent of their class in scholarship, is read. Mr. Elias Paul Barnhart, Miss Marjorie Ann Tireman.

The American Association of University Women Award. An annual award of $\$ 50$ was created by the Albuquerque branch of the A. A. U. W. to be used as a scholarship to promote advanced college training for women. It is given to a woman student who has earned at least 90 semester hours in this institution and who will enroll for a regular course the following year as a senior or as a graduate student. Selection is: made on the basis of scholarship, of financial need, and of general ability as indicated by recommendations from professors to the committee. Miss Peggy Hight.

The Marcella Reidy Mulcahy Memorial Prize. An annual cash prize of $\$ 10$, established by the Kappa Kappa

## STUDENT EXPENSES

Gamma Alumnae Association, is awarded to the student who, in the opinion of a special committee appointed by the head of the English department, has excelled in the composition of poetry. Mr. Manuel Luis Armijo.

The Faculty Women's Club Scholarshif. A cash scholarship of $\$ 50$ is to be awarded to a senior or junior woman on the basis of need and scholarship. Established by the Faculty Women's Club, in 1937. This award is given the second semester of each year and is announced in January. Miss Patricia Louise Sanford.

The H. J. Hagerman Memorial Prize in Public Finance. An annual $\$ 50$ cash prize was established by the New. Mexico Taxpayers Association, in 1938, to be awarded to the regularly enrolled undergraduate student who presents the best original paper in the field of taxation and public finance in New Mexico. The paper should be submitted by December first, to the faculty of the Department of Economics and Business Administration, who will make the selection. Mr. David Kay Alexander.

The Phi Sigma Scholarship Medal. Awarded each year by the National Society of Phi Sigma to a regularly enrolled student in the University of New Mexico for excellence in biology and promise of future achievement. This award is announced in May. No award.

The Phi Kappa Phi Senior Award. A cash prize of $\$ 20.00$ awarded each year by the local chapter of Phi Kappa Phi to the graduating senior of any of the five colleges of the University who makes the highest scholastic record of his class. Mr. Everett E. Zwicky, Jr.

The Alpha Delta Pi Scholarship. An annual $\$ 25$ scholarship given by the Albuquerque Alumnae Club of Alpha Delta Pi to a sophomore woman majoring in art, on the basis of need and ability. Miss Sara Jean Anderson.

The Phrateres Club Tuition Scholarship. An annual $\$ 20$ cash award to a sophomore Phrateres member, given by the Phrateres Mothers' Club, on the basis of the highest scholastic average for the first year and one-half of course work, minimum load 15 hours. Miss Leonor Andrade.

Art League of New Mexico Scholarship. An annual cash award to cover tuition in the summer school of art, at Taos, awarded with the recommendation of the Art Department faculty of the University, on the basis of merit.

Sigma Alpha Iota Patroness Award. A $\$ 25.00$ cash award to the music major upperclassman who has done outstanding work in music here and who needs the award for further study here either the summer or fall term following selection. Based on recommendations of the Music Department faculty. Miss Patricia Louise Sanford.

Frederick Herbert Keñt and Christina Kent Scholarships. Three scholarships, awarded annually, to the high school students, residents of the state, who are deemed most worthy by the superintendent of the Albuquerque city high school, and the University. These scholarships will be paid in two installments upon registration in each of the two terms of the freshman year, contingent upon enrollment for a full course of study and successful scholastic work. Miss Lavada Frame, Miss Thalia Tachias, Mr. Jack Otis Fowler.

The George St. Clair Memorial Award. A cash prize consisting of the interest from a memorial fund established by colleagues, students, and friends of George St. Clair, Professor of English, 1923-43, Department Head, Dean of the College of Fine Arts. The award is granted to the student who has made the greatest contribution in acting, stage design, lighting, or production in the Department of Dramatic Art. A faculty committee including the dean of the Fine Arts College, the head of the Department of English, and the head of the Department of Dramatic Art shall make the selection. Miss Gladys Marjorie Pearson.

The Telfair Hendon, Jr., Memorial Award. The interest on a fund of $\$ 500$ established by John F. Hendon, in memory of his brother, Telfair Hendon, Jr., Fellow and Instructor in English, 1930-33, is given to the graduating senior who has achieved the highest scholastic record as a major in the Department of English. Miss Katherine Bail.

The Lenna M. Todd Memorial Prize for English ComposiTION. The interest from a trust fund of approximately $\$ 2,000$ is available annually for a cash prize to be awarded to the student or students doing the best work in creative writing in the English department. This endowment was created by the will of Dana Paul Todd, as a memorial to his mother, Lenna M. Todd. Dana Todd, Class of '33, served in the United States Army in the Philippines and died in a Japanese prison camp at Osaka, on or about August 15, 1943. Ist, Mr. Robert Rhien; 2d, Mr. Lee O. Miller; 3rd, Mr. Milford Hill; 4th, Mr. Harry Lee Ritter; 5th. Miss Patricia Denny.

## STUDENT EXPENSES

The Rhodes Scholarships. Temporarily suspended.
Exchange with the National University of Mexico. Under an arrangement entered into between the two Universities, students may be exchanged between the University of New Mexico and the National University of Mexico upon mutually agreeable terms.

The Dove Asch Award. An annual cash prize of $\$ 10.00$ to be given to the woman upperclassman, with a major or minor in physical education, on the basis of general excellence among the students in that department. Miss Patricia Ann Hannett.

The William A. McGarthy Award. An annual cash prize of $\$ 20.00$ for the best research paper on the history of New Mexico. This award shall be made on the recommendation of the Department of History.

The Charles LeRoy Gibson Prize. A cash prize established by a trust fund contributed by students and colleagues of the late Charles LeRoy Gibson, Ph.D., Associate Professor of Chemistry, 1943-44, to be awarded to the senior student, major or minor in chemistry, who is judged most outstanding by the faculty of that department. (First award in 1946.)

Spur Sophomore Award. A cash prize of $\$ 50.00$, provided by Spur, Sophomore women's honorary organization, awarded to a woman student upon completion of her freshman year (two consecutive semesters). Selection is made on the basis of scholarship, leadership, and participation in campus activities and is awarded each year at the beginning of Semester I.

## GENERAL ACADEMIC REGULATIONS

## CLASS HOURS AND CREDIT HOURS

Aclass hour consists of fifty minutes. One class hour a week of recitation or lecture, throughout a semester, earns a maximum of one credit hour. One class hour a week of laboratory, orchestra, chorus, or physical training, throughout a semester, earns from one-third to one-half credit hour. One half-hour individual lesson a week in applied music, throughout a semester, earns two credit hours.

## GRADES -

The grades awarded in all courses are indicative of the quality of work done. Their significance is as follows:

A, Excellent. 3 grade points per credit hour.
B, Good. 2 grade points per credit hour.
C, Average. l grade point per credit hour.
D, Barely Passed. No grade points.
F, Failed. $F$ is also given in any course which the student drops after the fourth week of a semester or second week of a summer session, while doing failing work.

I, Incomplete. The grade of $I$ is given only when circumstances beyond the student's control have prevented his compleing the work of a course within the official dates of a session. (See grade of PR.) The I automatically becomes an $F$ if not removed (1) within the first twelve weeks of the next semester of residence, (2) within the next four semesters, if the student does not re-enroll in residence. The student may change the I to a passing grade by satisfactorily performing the work prescribed by the instructor. The student obtains from the office of his dean a permit to remove the $I$, pays the $\$ 2.00$ fee, and takes the card to the instructor, who completes it and returns it to the office of the dean: The dean forwards this permit to the admissions office where official entry on the student's record is made.

W, Dropped Without Discredit. W is given in any course which the student drops after the fourth week of the semester or second week of the summer session, while doing passing work.
$C R$, Credit. $C R$ is used to report satisfactory completion of Master's thesis.

NC, No Credit. NC is used to report unsatisfactory completion of Master's thesis.

## ACADEMIC REGULATIONS

PR, Progress. This grade is used to indicate that master's thesis, or a graduate problem, is in progress but not complete. When the problem is complete, a regular grade is reported. When the thesis is complete, CR or NC is reported.

The mark of NR, No Report,' is used only in official grade reports to students and parents, to indicate that the instructor has not reported a grade.

Change in Grade. No grade except I cán be raised by aspecial examination. A grade of I can be changed to a passing grade in a manner to be determined in each case by the instructor concerned, with the approval of the dean of the college. (See I above.)

Any other change in grade, after the grade is on record in the admissions office, may be made only after reasons for such change have been submitted in writing by the instructor concerned, and approved by the Committee on Entrance and Credits.

## SCHOLARSHIP INDEX

A student's academic standing is referred to in terms of a scholarship index obtained by dividing his total number of grade points by the total number of hours attempted.* All honors and prizes depending upon scholarship are determined by ranking students according to this index.

## GRADE REPORTS

At the end of the eighth week of the semester (mid-semester), and at the end of the semester, grades are reported, for all courses, to the admissions office.

Copies of mid-semester and semester grades are mailed to parents of undergraduate students, with the exception of married students and students over 21 years of age.

## TRANSCRIPTS OF CREDITS

Each time a student completes work in the University, he is entitled to one complete transcript of record without charge. For each additional copy a charge of one dollar is made, except that when several copies are to be made at the same time, all copies in addition to the first will be charged for at the rate of twentyfive cents each.

If the student requires special statements to be made concerning his record, or if special forms are to be filled out, the transcript fee of $\$ 1.00$ will be charged for such service.

[^2]Scholastic Status. An undergraduate student has the status: "in good standing," "on probation," "General College," or "under suspension." The student "under suspension" may. re-enroll at the expiration of the suspension period. Students under suspension from the General College may re-enter the University only through the General College. The status "General College" means that the student is not eligible for enrollment in a regular college without release from the General College by the dean.

Honorable Dismissal. The status""in good standing," "on probation," or "General College,". entitles the student to honorable dismissal, and on transcripts no separate statement of honorable dismissal is necessary. Whether he completes a semester, or withdraws with permission before the end of the semester, a student is entitled to honorable dismissal provided that he has the necessary scholastic status, and is in good standing regarding conduct and financial obligations. Honorable dismissal implies that the University will permit the student to re-register in the next session.

## WITHDRAWAL FROM THE UNIVERSITY

When a student wishes to cancel his registration and withdraw from the University during the semester, he should secure a withdrawal card from the personnel office; the graduate student should secure the withdrawal card from the dean of the Graduate School. Grades of $\mathbf{W}$ or $\mathbf{F}$ are shown on the student's record if he withdraws from the University after the first four weeks of the semester or first two weeks of a summer session. When a student leaves the University during a semester and does not carry out his withdrawal according to this regulation, he renders himself liable for a grade of $F$ in all of his classes, even though he is passing his courses up to the time of leaving.

## CHANGES IN REGISTRATION

Change in Program of Studies. The student who desires to add a course to, or drop a course from, his program of studies, should obtain from his dean a petition for change of program of studies. The student obtains signatures called for on this form, and returns it to the office of his dean. The dean sends the form to the admissions office where official entry is made on the student's record.

Students who drop a course at any time without permission will receive a grade of $F$ in the course. A fee of $\$ 1.00$ is charged for any change made in the student's program of studies after

## ACADEMIC REGULATIONS

the end of the second week of the semester, or after the end of the first week of the summer session.

- Change in Major or Minor. By the middle of the sophomore year, each student should declare his major and minor study, and make his application for a degree. A form for this purpose may be obtained from the admissions office, and after completion of the form, it should be returned to that office. If the student later wishes to apply for a different degree, change his major or minor, or change his college, he should complete a new application for degree, and return it to the admissions office.

Change in College. A student who desires to change his registration from one college to another shall petition the dean of his college. This petition requires approval of the deans of both colleges and is then filed in the admissions office.

Change in Address. Each student is expected to keep the University authorities informed as to his address. Any change in address should be immediately reported to the admissions, deans', and personnel offices.

Addition of Correspondence or Extension Courses to Program. A resident student may enroll for correspondence and extension courses only when the addition of such course does not cause the student's program to be in excess of the maximum load allowed, and only after permission has been given by the dean of his college.

## SCHOLARSHIP REGULATIONS

The standing of students with respect to scholarship is checked at the end of each semester and summer session. At such times, students who are deficient in scholarship are placed on probation, or suspended, in accordance with the following regulations. A student placed on probation at any time will remain on probation until the next final examination period.

Probation. A student is placed on probation at the end of any semester or summer session when the total number of points earned drops below two thirds (in General College, one half) of the total number of hours which he has attempted.* Hours given a mark of $W$ will be excluded in this computation, but hours of $F$ will be counted.

Suspension. A student is recommended for suspension at the end of any semester or summer session when he is placed on

[^3]
## ACADEMIC REGULATIONS

probation for the second successive time. A student suspended from a four-year college may enter the General College on probation only in case the total number of his grade points remains above one half the total number of hours attempted.

A student who is suspended for poor scholarship, or who, after having been placed on probation at the end of the semester, fails to re-register for the following semester, or who withdraws from the University while on probation, shall be considered as on probation upon his return to the University, and the scholarship rules shall apply as though he had not been away.

A dean may require a student who is on probation at the time of registration to enroll for the minimum number of hours, and he may at any time require a student on probation to drop as many hours as seem to be in excess of the student's ability.

Suspension through Scholarship Committees. Regulations on probation and suspension as described above apply only at the end of a semester or summer session. However, during the progress of any semester or summer session the dean of a college may refer the case of a delinquent student to a college committee on scholarship, and, after a hearing, such committee may recommend probation or suspension for such student. All cases recommended for suspension under these conditions must be referred to an all-University committee comprising one member from each of the college committees on scholarship. After hearing, the University committee will make its recommendation to the Administration.

Attention is called also to the possibility of suspension as a result of excessive absence. See attendance regulations, page 53.

Additional College Regulations:
College of Arts and Sciences: A student who has earned 60 or more credit hours shall be placed on probation at the end of any semester or summer session when the total number of points earned drops below the total number of hours he has attempted. A student is recommended for suspension at the end of any semester when he is placed on probation for the second successive time.

College of Education: It is the opinion of the faculty of the College of Education that candidates for the teaching profession should maintain at least an average scholarship record. Therefore, beginning with the junior year, a student will be recommended for suspension from the College of Education at the end of any semester or summer session when the total number of points earned in university work drops below the total number of
hours for which the student has been registered.* Hours given a mark of $W$ will be excluded from this computation.

General College: A student with not more than 60 credit hours of academic work, suspended from one of the four-year colleges on the basis of scholarship, is permitted to enter the General College on probation, provided he has earned at least half as many points as the total number of hours he has attempted.

A student in the General College is placed on probation at the end of each semester or summer session when the total number of points earned drops below one-half of the total number of hours for which he has been registered.* Hours given a mark of W will be excluded in this computation, but hours of $\mathbf{F}$ will be counted.

A student in the General College is recommended for suspension at the end of any semester or summer session when he is placed on probation for the second successive time. Students suspended from the General College may re-enter the University only through the General College.

## EXAMINATIONS

Regular Examinations. Examinations in each course are held at the close of each semester, and at intervals during the semester at the discretion of the instructor. All students, including graduating seniors, are required to take semester final examinations, which are held according to a notice issued by the Schedule Committee.

Special Examinations. A special examination is one taken at a time other than regularly with the class. Classified as special examinations are: examinations given to make up missed regular course examinations, examinations to validate or to establish credit, examinations to remove a grade of $I$, examinations for the removal of entrance deficiencies.

Entrance examinations for students deficient in entrance units, or for graduates of unaccredited or partially accredited high schools who must validate their unaccredited work, are given at the beginning of each semester to each student who desires to take them. These entrance examinations in the various high school subjects are not to be confused with the entrance tests which are required of all freshmen.

A fee is charged for all special examinations except the entrance examination. For a list of the special examination fees, see section of the catalog entitled "Student Expenses."

Before the student is admitted to a special examination, he

[^4]
## ACADEMIC REGULATIONS

must present to the instructor a permit signed by the dean of his college. The admission officer issues permits for entrance examinations. For those examinations where a fee is required, the permit must show the comptroller's receipt of the fee.

Examination for Advanced Standing. A student in residence in an undergraduate college shall have the privilege of passing a course in the University by special examination without attendance upon the course, and receive undergraduate credit therefrom, such privilege to be subject to the following restrictions:

1. He shall not have been previously registered in the course in any division of any college or university.
2. The applicant shall have a scholarship index of two or more in a normal program of studies completed during the last semester (or last two summer sessions) in residence, and tie shall be doing superior work at the time of taking the examination.
3. The examination shall have the approval of the dean of the college, the head of the department, and the instructor concerned.
4. The applicant shall obtain from the dean of his college a permit for the examination, and shall pay in advance the required fee of $\$ 2.50$ per credit hour.
5. The student shall obtain in the examination a grade not lower than C , and shall show a mastery of the course acceptable to an examining committee of three, appointed by the dean, including the instructor and the head of the department concerned.
6. Credits earned through advanced standing examinations do not apply to residence requirements.

Dishonesty in Examinations. A student found guilty of dishonest practices in a quiz, test, examination, or other work will be subjected to disciplinary measures. Dismissal from the University will result in cases where the offense is flagrant.

## ATTENDANCE

Students are expected to attend all meetings of the classes in which they are enrolled. No extensions of the vacation periods are given to any students, regardless of the location of their homes. Non-attendance at classes due to late registration is considered the same as absence incurred after registration.

Instructors will keep a record of class attendance; and will report excessive absences to college deans. A student with exces-

## ACADEMIC REGULATIONS

sive absences may be dropped from a course with the grade of $F$, by the dean of the college, upon recommendation of the instructor. The dean may recommend suspension from the University, on the grounds of neglected duty, when a student has thus been dropped from two courses.

Absences due to illness, field trips, athletic trips, etc., are to be reported by the student to the instructor and to the personnel office. Such report does not relieve the student of responsibility for lost work. It is the duty of the student to take the initiative in arranging with his instructors to make up work missed.

Students who are absent and unexcused from final examinations or other closing exercises of the classes in which they are enrolled shall be given the grade of F . A grade of I.may be given when there is valid reason for absence from the examination.

## UNIVERSITY ASSEMBLIES

Regular assemblies are scheduled each month, but special meetings may be called by the President of the University, or by the Student Council with the concurrence of the Administration.

Attendance is required at regular assemblies, but not at special assemblies, unless it is so announced at the time.

It is necessary for a student to obtain from the personnel office an excuse for any absence immediately before or after the absence is incurred.

Lectures and addresses are delivered on various topics of interest by members of the faculty, and by visitors to the University and to the city; musical and dramatic recitals, and contests in oratory and debating are held. A fair share of the time set apart for assemblies is given to the Associated Students for the transaction of their business.

## DEGREE REQUIREMENTS

For information concerning the various degrees offered, and for course and scholastic requirements leading to these degrees, students should refer to those sections of the catalog devoted to the colleges.

Two undergraduate degrees may not be granted a student until he has earned the equivalent of five years' college work (as represented by a minimum of 30 semester hours above the requirements for the first degree), and has fulfilled all requirements for both degrees. A transferring graduate should notify the admissions officer when applying for admission if he plans to work for a second undergraduate degree.

## ACADEMIC REGULATIONS

Notice of Intention to Complete Degree Requirements.

- At the middle of the sophomore year, all candidates for degrees are required to file in the admissions office applications for degrees. Necessary forms may be secured from that office.

Specific Courses Required. Four semester hours of required physical education (or equivalent N.R.O.T.C. credits) shall be completed by all students in the University. Students over thirty years of age are exempted from the physical education requirement.

An orientation course is required of all students in their freshman year, except those who enter the University with as many as twenty hours of college work.

For specific requirements leading to degrees in the various curricula, students should refer to the courses of study outlined in the listings of the different colleges.

Dividends and Penalties. For every 15 semester hours of A, or for every 30 semester hours of $\mathbf{B}$, the hours required for graduation are reduced by one. The maximum of such dividends allowed is four. For every 15 semester hours of D, the hours required for graduation are increased by one. No dividends or penalties are given in the College of Engineering. Dividends and penalties-are assessed only on work done in residence at the University of New Mexico.

Senior Residence Requirements. Residence credit is defined as credit earned by attendance in regular classes on the University of New Mexico campus or in one of its field sessions. Credits earned through the Extension Division or by examination are not counted toward the residence requirement.

Students who have done less than 60 semester hours in residence previous to senior status (see "Classification of Students")

- shall earn 30 semester hours in residence in the senior year.

Students who have done 60 semester hours, but less than 90, Lin'r residence previous to senior status, shall earn 24 semester hours in residence in the senior year.

Students who have done 90 or more semester hours in residénce previous to senior status shall earn 18 semester hours in residence in the senior year.

In no case-is the number of hours specified to be earned in the senior year to be interpreted as necessarily the last hours.

Students may fulfill part or the whole of this residence requirement by summer session attendance.

Residence Requirements in Major and Minor. At least one half of the minimum number of credit hours required for

## ACADEMIC REGULATIONS

major study and one fourth of the minimum number of credit hours required for minor study must be class or laboratory work earned in residence in the University. When a senior transfer student plans to complete a major by presenting credit hours earned in residence at another institution, the departmental adviser may modify this ruling, not, however, below the minimum residence requirement for the minor.

Graduate Record Examination. All seniors are required to take the Graduate Record Examination during the last term of residence.

Extension and Correspondence Hours Allowed Toward Degree. As many as 40 semester hours in University extension and correspondence courses will be allowed toward the bachelor's degree provided that at least 10 of the 40 have been earned in extension courses taught by regular resident instructors of the University.

Credit will be allowed for extension and correspondence courses completed in institutions which are on the approved list of the National University Extension Association, of which the University is a member. Credit for extension and correspondence courses completed in institutions which are not on the approved list of the-N. U. E. A., will not be allowed until the student has successfully passed a validating examination covering each course.

## COMMENCEMENT

Normally, commencement exercises are held at the end of Semester II. Students who complete their requirements in an offsession receive their diplomas at the next regular commencement.

Students must participate in the commencement exercises at the time of receiving diplomas, unless excused by the President of the University.

## graduation with honors

The Degree with Distinction. All senior students having scholarship indexes which rank them in the upper 5 per cent of the graduating class of the University will be graduated "With Distinction." Ranking will be based upon all work taken at the University of New Mexico. Transferred students must present a minimum of 45 credit hours earned at this institution to obtain these honors.

The Degree with Honors (Honors Work). The University faculty has created a Division of Honors Work under which the baccalaureate degree with honors may be earned. For details of the plan see "Division of Honors Work."

## DIVISION OF HONORS WORK

The purpose of the Division of Honors is to afford abler and more ambitious students opportunity to pursue with a certain degree of independence a program of studies which will extend and intensify their knowledge of the field of their major or minor studies, develop their initiative and self-guidance, and their critical and creative ability. This program may lead to the baccalaureate degree with honors.

Eligibility. Students in all undergraduate colleges will be permitted to undertake and to continue Honors work, when, upon the basis of their previous records, entrance tests, and university records, they show, in the judgment of the Committee on Honors Work, promise of fine scholarly achievement. There must be other promise than that indicated by an average of $\mathbf{B}$ or better.

Types of Honors Projects. (A) Projects which will extend Honors students' knowledge of their major or minor field, especially by filling up the interstices between their regular courses. Each semester's work should be terminated with an examination covering such work.
(B) Projects of the nature of intensive study designed to develop critical and creative ability, or in other words, an undergraduate grade of research, extending through one semester or a whole academic year, and terminating in a thesis.

Procedure. Sophomores and juniors should preferably undertake honors work projects of type A, and seniors should preferably undertake honors projects of type $B$. Projects should be organized to earn, normally, 1 to 3 credit hours per semester.

Privileges. (1) Honor students will receive consideration if they find it necessary to make application to University agencies for financial aid.
(2) All students carrying Honors work are eligible for auditing privileges and may obtain Honors Audit Cards from the dean's office.
(3) Juniors and seniors carrying Honors work are eligible for stack privileges at the Library.
(4) The best senior theses each year will be recommended to the Committee on Publications as a University bulletin or for deposit in the library.

For further information on regulations and requirements for Degrees with Honors, consult the chairman of the Committee on Honors Work.

## COLLEGE OF ARTS AND SCIENCES

The College of Arts and Sciences attempts to supply the cultural training which should underlie the more specialized work of the graduate, professional, or vocational school. The materials for this training are provided by the interests and achievements of man as they appear in his cultural records, his social institutions, and his investigation of natural laws.

## DEGREES

Upon the recommendation of the faculty and the President of the University, the degree of Bachelor of Arts is conferred by the Regents upon those candidates who have completed all specified requirements. Candidates who complete the requirements with majors in dietetics, mathematics, or the sciences will receive the degree of Bachelor of Science, unless special request is made for the Bachelor of Arts degree. Similarly, those who complete the specified requirements will receive the degree of Bachelor of Business Administration. For requirements leading to the degree of Bachelor of Business Administration, see "Department of Economics and Business Administration." : For information on the degree of Bachelor of Science in Naval Science, consult the dean of the college.

## RELATION TO PROFESSIONAL AND VOCATIONAL COURSES

The Bachelor of Arts and the Bachelor of Science degrees of the College of Arts and Sciences are based upon cultural, rather than professional or vocational courses. The courses preparatory to law, medicine, and the other professions are planned and taught as cultural subjects, and do not infringe upon the work of the professional school. No vocational courses offered in the General College are accepted. Concerning the limited acceptance of work in education, engineering, law, medicine, and fine arts, see Electives and Special Curricula.

## GRADUATION REQUIREMENTS

Candidates for the degree of Bachelor of Arts or Bachelor of Science are required to complete a total of 124 semester hours in academic subjects, and 4 semester hours in physical education (or equivalent N.R.O.T.C. credits). In the first two years, or Lower Division, the student is expected to acquire certain basic essentials and to explore several different fields to determine where his interests lie. In the last two years, or Upper Division, the student devotes himself to his major and minor, and to such other subjects as he may wish to take.

## LOWER DIVISION REQUIREMENTS

1. At least 60 semester hours in courses acceptable toward graduation, in addition to 4 semester hours in physical education (or equivalent N.R.O.T.C. credits).
2. A one-point index for the total number of hours which the student has attempted.*
3. The completion of Orientation 9, physical education, and group requirements as described below.
4. Successful conclusion of a proficiency examination in English.
5. In all subjects except foreign language, students in the Lower Division are restricted to courses numbered below 101 with the provision that a student may be admitted to Upper Division courses at the discretion of the dean of the college: (1) if he has completed within 7 hours of the group requirements, of which not more than one hour shall be in physical education, nor more than 6 hours in foreign language; (2) if he has completed not less than 45 credit hours, exclusive of physical education, earning at least a one-point index for all hours which he has attempted; and (3) if the remaining requirements appear upon his program.
6. Students in the Lower Division may not carry more than 8 hours in one department during one semester. (Exceptions may be made in the case of pre-medical students.)
7. Not more than 50 hours in courses open to freshmen may be taken without a penalty of 1 hour for every 3 excessive hours.
8. Exceptions to any of these rules may be made only upon recommendation of the dean.

## UPPER DIVISION REQUIREMENTS

1. Completion of at least 40 hours in courses numbered above 100 with at least a one-point average in all such hours carried.
2. Completion of at least one major and one' minor, or two majors.
3. Grade-points equal to the total number of hours which the student has attempted.*

## GROUP REQUIREMENTS

In keeping with the exploratory aim of the Lower Division, the student distributes part of the work of his first two years among the four following groups of subjects. The acceptability of transferred work toward fulfilling the group requirements lies

[^5]
## ARTS AND SCIENCES

in the judgment of the admissions officer and the dean of the College.
I. English. Six semester hours must be earned in English 1 ab , and 3 additional credit hours must be earned in a course in literature numbered above 50. Failure to pass the sophomore English proficiency test at first trial will result in an additional requirement of three hours of sophomore composition.
iI. Foreign Language. A student who has been admitted with no credit in a foreign language, or who begins a language in which he has done no work in high school is required to complete four semesters or twelve credit hours in one foreign language.

Other students continuing a language begun in high school will be tested and assigned to courses according to ability shown. Such students will then complete the remainder of the twelve hours required.
III. Social Sciences. Nine semester hours (not more than 6 from one department) must be completed in approved $\dagger$ courses in the departments of Anthropology, Economics and Business Administration, History, Government and Citizenship, Philosophy, or Sociology. A student admitted with less than 1 unit in social science is required to complete 12 hours in this group.
IV. Mathematics and Sciences. Eleven semester hours (not more than 8 from one department, and including 2 semesters in courses that require laboratory work) must be completed in approved $\dagger$ courses in the departments of Biology, Chemistry, Geology, Home Economics, Mathematics, Physics, or Psychology. A student admitted with high school deficiencies in both mathematics and science is required to complete a total of 17 hours in this group.

## MAJOR AND MINOR STUDIES

A student admitted to the Upper Division shall declare his major subject, and his program of studies thereafter shall meet with the approval of the head of the major department. A major regularly consists of not less than 24 hours in approved courses. The student must also complete, in another department, a minor of not less than 12 semester hours. The selection of the minor is subject to the approval of the head of the student's major department.

Only work of at least C quality is accepted toward the major and the minor; courses in which grades of D are earned may be accepted as electives toward graduation.
$\dagger$ For approved courses, see Departments of Instruction.

## ELECTIVES

A student who has fulfilled all other requirements for graduation may use electives to complete his total of 124 hours for graduation, subject to the following restrictions:

A maximum of 24 hours in any combination, earned in courses offered in the Colleges of Engineering, Education, and Fine Arts, or in Naval Science, is acceptable as electives in the College of Arts and Sciences, with the following exceptions:
(1) All theory and method courses in physical education.
(2) All courses in education in methods, supervision, and practice teaching.
(3) In excess of 4 hours in ensemble music.
(4) In excess of 3 hours of shop work.

A major in dietetics leading to the degree of Bachelor of Science may be given in special cases upon approval of the College.

The normal program for a student intending to graduate in four years is 16 hours a semester. Seventeen hours, plus one semester hour of physical education (or military drill in the case of N.R.O.T.C. students), is the maximum, except by petition to the Committee on Scholarship, which may, at its discretion, grant up to 19 hours (including non-credit courses). Ordinarily, a petition for excessive hours will not be considered unless the student has in the preceding semester made a grade of $\mathbf{B}$ in more than half of his hours, and no grade below $C$.

## NORMAL FRESHMAN PROGRAM

Following is the standard freshman program; necessary deviations from it should be made only after consultation with the faculty adviser.

| First Semester |  | Second Semester |  |
| :---: | :---: | :---: | :---: |
| * English 1 a | 3 | * English 1 b | 3 |
| Foreign Language | 3-4 | Foreign Language | 3-4 |
| Social Science | 2-3 | Social Sciençe | 2-3 |
| Natural Science or Mathematics | 4-3 | Natural Science or Mathematics | 4-3 |
| Orientation 9 | , | Physical Education | 1 |
| Physical Education | 1 | Additional group requirements | 3 |
| Additional group requirements | 3 | ${ }^{\text {n }}$ Naval Science | 4 |

[^6]
## ARTS AND SCIENCES

## PRE-PROFESSIONAL AND OTHER CURRICULA

Students are cautioned against assuming that four-year college courses always prepare for professional work. At least one year of specialized graduate work is advisable, even if not actually required.

Combined Curriculum in Engineering and Arts and Sciences. Degrees in both the College of Arts and Sciences and the College of Engineering may be obtained by following a fiveyear curriculum, to be outlined in each case, jointly, by the deans of the two colleges. Any student interested in this curriculum should confer with the deans before the end of the sophomore year. For students interested in careers in countries to the south of the United States, attention is called to a major in InterAmerican Affairs along with engineering.

Senior Year in Medicine or Law. A candidate for the bachelor's degree may offer, in lieu of the last thirty hours at the University of New Mexico, the full first year's work (satisfactorily passed and properly certified) in an approved school of law or medicine requiring three years for entrance, provided: (l) that written notice of this intention be submitted to the dean before the end of the junior year; (2) that the first three years of work ( 94 semester hours and 4 P. E.) shall have been taken in residence at the University of New Mexico; (3) that, before entrance into the professional school, the candidate shall have completed all specific and group requirements, and major and minor requirements, in accordance with University regulations; (4) that at least 75 per cent of the hours completed before entrance into the professional school shall have been of C grade or better, and that the total of grade-points shall at least equal the total number of hours which the student has attempted.

Curriculum Preparatory to Forestry. Openings in the field of forestry have been greatly diminished in recent years. Only students with special talents and high scholastic average should undertake such preparation. Information regarding it may be obtained from the Department of Biology.

For Curricula Rélating to Inter-American Affairs see page 65.

Curriculum Preparatory to Journalism. The journalist needs great breadth of preparation. In addition to courses giving actual instruction and practice in writing, he should include in his curriculum, preferably, more than one foreign language and studies dealing with both history and the current aspects of all
major social movements. It should be kept in mind, however, that the sciences, all the other professions, and business offer abundant opportunity for writing as an avocation (not a vocation), and it is only the person of rare talent who can make a profession solely of writing. The pre-journalism student should consult members of the Department of English for advice on his courses.

Curriculum Preparatory to Law. The law touches life at so many points that the student preparing for it should seek broad preparation in English composition and speech, history, economics, politics, philosophy, language and literature, logic, and mathematics. If he wishes to become a specialist in the history of law, he must possess a sound knowledge of Latin.

Curriculum Preparatory to Medical Technology. Besides regular requirements and prerequisites, a three-year curriculum has been arranged which includes: Biology $93 \mathrm{~L}, 132 \mathrm{~L}, 143 \mathrm{~L}$, 144 L; Chemistry 55 abL, 101 abL ; Physics 1 abL . Candidates are urged to complete a major in either biology or chemistry, and adjustments in courses named above may be made by the department head. A year's work in more technical subjects and a year of practical hospital experience are also required for the professional degree.

Curriculum Preparatory to Medicine. The minimum of college hours required for admission to medical schools approved by the Association of American Medical Colleges and by the Council on Education of the American Medical Association, is 60 semester hours in a college of arts and sciences. Since the admission requirements vary, the pre-medical student should familiarize himself with the requirements of the particular school he wishes to attend.

At the University of New Mexico the curriculum for the first two years for these students is as follows:

| First Year |  | Second Year |  |
| :--- | :--- | :--- | :--- |
| English 1 ab | $3-3$ | English and Psychology 51 | $3-3$ |
| French or German | $3-3$ | French or German | $3-3$ |
| Chemistry 1 L, 2 L | $4-4$ | Chemistry 55 abL | $3-3$ |
| Biology 1 L, 2 L | $4-4$ | Biology 71 L and 121 L | $4-5$ |
| Social Science and Math. 15 | $3-3$ | Physics 1 abL. | $4-4$ |
| Physical Education |  | $1-1$ | Physical Education |

Curriculum Preparatory to Nurses' Training. A special freshman curriculum has been arranged for students entering nurses' training. Following successful completion of this course of study, students may enter the Regina School of Nursing at the

## ARTS AND SCIENCES

St. Joseph Hospital, Albuquerque, where they may obtain the clinical experience and other training necessary to graduation as registered nurses. The course thus outlined will require approximately four years.

During the freshman_year at the University, students will pursue the following curriculum:

| English. | $3-3$ | Psychology | $3-3$ |
| :--- | :---: | :--- | ---: |
| Microbiology | 3. | Orientation | 1 |
| Human Anatomy and Physiology | 5 | Social Science | $\mathbf{3}$ |
| Chemistry | $5-5$ |  | $17-17$ |

Curriculum Preparatory to Public Administration. In addition to other Lower Division requirements and prerequisites, the following courses are required: Economics $51 \mathrm{ab}, 140,152$, 165; Business Administration 53 abL ; Government $1 \mathrm{ab}, 51 \mathrm{ab}$, 121, 131, 141, 167; History 11 ab, 178. Consult the Department of Government for further details.

Gurriculum Preparatory to Public Financial Administration. Besides regular requirements and prerequisites, the following courses are required: Business Administration $53 \mathrm{ab}, 102$, 103 ab, $107 \mathrm{ab}, 109, .110,112$; Economics $51 \mathrm{ab}, 111,152,165$; Government $51 \mathrm{ab}, 167$, 175; Mathematics 14. Consult the Department of Economics and Business Administration for further details.

## SOCIAL WORK TRAINING PROGRAM

The undergraduate program in social work at the University of New Mexico is planned to meet two needs: (1) to recruit personnel which could be immediately useful to a social work agency after a planned undergraduatẹ curriculum; (2) to provide a reservoir of potentially able students who will enroll in graduate schools of social work as a progression from their undergraduate curriculum or as students returning later from practice to complete their professional training.

## REQUIREMENTS FOR DEGREE

The undergraduate program is composed of a sequence of courses in government, economics, psychology, and sociology, plus four courses in the field of social work. A combined major and minor leading to the degree of Bachelor of Arts includes the following studies:


INTER-AMERICAN AFFAIRS BUILDING

## ARTS AND SCIENCES

I. Social Sciences and Psychology:

1 ab
Government $5^{1 \mathrm{ab}}$
Government 121
Economics 105
Economics 140
Economics $14^{1}$
Psychology 51
Psychology 101
Psychology 185
Psychology 187
or Psychology 190 L
or Psychology 103
Sociology $5^{1}$
Sociology 72
Sociology 105
Sociology 110
Sociology 154
Sociology 195
II. Social Work:

Government 170
Sociology ${ }^{151} 1 \mathrm{ab}$
Sociology 197

Introduction to Social Science
American Goverıment and Politics
Public Administration
Principles of Economics (3)
Economic Security (9)
Labor Problems (3)
General Psychology (3)
Social Psychology . (3)
Mental Measurements (3)
Child Psychology
Clinical Psychology (3)
Abnormal Psychology (3)
The Family (3)
Social Pathology (3)
Rural Sociology (3)
Juvenile Delinquency (2)
Race and Culture Relations (3)
Population Problems (3)
Social Welfare: Org. and Adm. (3)
Introduction to Social Service (3-3)
Field Observation and Participation (3)
III. Group Requirlments: The same as for the College of Arts and Sciences with these modifications: (II) in the foreign language group, Spanish is required; (III) since the curriculum is built around the social sciences, this requirement is eliminated; (IV) in the mathematics and science group, the following subjects are required: Biology 36 and 39 L , Human Anatomy and Physiology (5) ; Biology 48, Heredity (2).
IV. Elegtives: Electives may be chosen to round out a student's interest. English, history, anthropology, home economics, or statistics, are recommended.

## COLLEGE OF ARTS AND SCIENCES <br> SCHOOL OF INTER-AMERICAN AFFAIRS

An ever-growing number of people are realizing that a better understanding of, and closer and more satisfactory relationships with, the other nations of the Hemisphere are among the most vital needs of the United States today.

All over the country interest in the study of Spanish and Portuguese and of the history, literature, arts, and present social, economic, and political problems of our Latin-American neighbors is increasing. In many cases, however, high schools and colleges find it difficult to secure sufficiently trained teachers for presenting these subjects. There is also a growing demand on the part of business firms and official and private agencies engaged in inter-American work for persons with a sound knowledge of the "other Americas."*

[^7]
## ARTS AND SCIENCES

The University of New Mexico enjoys an exceptionally favorable position for the study of inter-American and regional economic and cultural problems. Nowhere else does one find the three chief ethnic elements of the Americas-Indian, Hispanic, and Anglo-Saxon-living together in large numbers with a common national allegiance, and maintaining their traditional cultures. About half the population of the state speak Spanish as a native language, and a good many of the problems presented by our Southwestern region are closely integrated with those of inter-American relations. Because of geographic proximity and common human and scientific interests, New Mexico has maintained close bonds with our good neighbor, Mexico, who has provided us with a solid introduction to Latin America.

For these reasons, the University of New Mexico has, for a number of years, devoted particular attention to Latin-American and Southwestern studies. A special appropriation of the State Legislature made possible the expansion of this work and the establishment of the School of Inter-American Affairs in the fall of 1941 .

The School is a coördinating administrative unit operating under the College of Arts and Sciences and the Graduate School, through an interdepartmental committee.

The offerings in the field of Inter-American Affairs have been coördinated and developed into several interdepartmental curricula:
I. B.A. in Inter-American Affairs, with specialization in four directions: Historical and Cultural; Business Administration; Social, Economic, and Political Affairs; and Regional (The Hispanic Southwest.)
II. A two-year course for Secretary-Interpreters Specializing in Inter-American Relations.
III. A one-year post-graduate course in Inter-American Relations for majors in science departments and graduates of technical schools.

Though Portuguese is not made a required study in the various curricula in Inter-American Affairs, the School urges its students to elect it and to equip themselves with at least a reading knowledge of the language. The School also strongly recommends that students aiming at a preparation for a business career intensify their studies in Economics and Business Administration.

To help in the placement of students, the School maintains
contact with business concerns, state and federal agencies, and other organizations interested in the field. A directory is being organized with as much data as possible on the opportunities open to the graduates of the Schorol.

## SCHOLARSHIPS

All-University Latin-American Scholarships. In the academic year 1946-1947, the University of New Mexico is offering two scholarships covering tuition and room and board and four covering tuition only to qualified graduate and undergraduate students from any Latin-American countries who are planning to pursue studies in any of the departments of the University. These scholarships have been established by the Regents and are administered jointly by the University and the Institute of International Education. Information may be obtained from the director of the School of Inter-American Affairs.

Scholarships in Inter-American Affairs. The School of Inter-American Affairs is offering in the academic year 1946-1947 two tuition-plus- $\$ 250$ scholarships and four tuition scholarships in the general course leading to a B.A. in Inter-American Affairs and in the Secretary-Interpreters Course. These scholarships are open to well-qualified graduates of high schools of the State of New Mexico who deserve financial assistance and who are planning to enter the University as freshmen. It also offers one tuition-plus- $\$ 250$ scholarship and two tuition scholarships to undergraduates other than freshmen or graduate students from New Mexico or outside the state. For application forms and further information address the director of the School.

## GENERAL CURRICULUM IN INTER-AMERICAN AFFAIRS

The curriculum leading to a B.A. with a major field of concentration in Inter-American Affairs has been designed to provide a general basic training in fundamental subjects and at the same time a wide choice of supplementary courses to meet individual needs and preferences.

The emphasis of this major field of concentration is on language study and on the social sciences with particular attention to the Hispanic countries. Proficiency in Spanish will be a basic requirement since students are expected to use the language as a tool in the various courses of Hispanic content given in other departments.

Attention is also called to the fact that this is not a departmental major, but a major regional field of concentration, integrating the studies of Hispanic content and allied subjects offered

## ARTS AND SCIENCES

by the various departments. Even granting the regional character of the major, the program of studies devised is sound academically, presenting as it does a wide and representative training in the liberal arts.

Because of its comprehensive and integrated concentration in the field of Inter-American Affairs, this major permits no minors in the departmental sense, nor can a minor be taken in InterAmerican Affairs. However, credits equivalent to minors and even majors can be earned through electives in instructional departments. For this purpose students may choose in their sophomore year fields of interest. Thus, besides the general preparation in Inter-American Affairs, they may obtain added proficiency in other lines of study.

A close examination of the subjects required as Gateway and Basic Courses and of the wide range of electives allowed will show the variety of content and flexibility of the major. As a matter of fact, this curriculum would admirably serve for those students not necessarily interested in utilitarian pursuits in the field, but wanting to get, within the scheme of a well-rounded college education, a solid acquaintance with Latin-American problems for the general purpose of developing an enlightened inter-American consciousness in whatever occupation they may enter.

Gateway Courses* (Prerequisites to the Basic Upper Division Courses, and to be taken in the freshman and sophomore years.)
Anthropology $1 a b$ General Anthropology ................ 6
History 1 ab. Western Civilization ....................... 6
History $11 a b$. History of the Americas .................. 6
Introduction to Social Science (Economics, Government or Sociology 1 ab )

6
$\dagger$ Introduction to Latin America (Anthropology, Economics, Government or Sociology 73 ab ) 6
Total credits . ......................................... 30
*For fuller description of the courses see departments of instruction. $\dagger$ I. The Land and the People: Geographic background-geologic structure, landforms, soils, climate, vegetation, animal life, natural resources. Cultural landscape-races, languages, societies, economies, arts, prehistory, history of settlement, distribution of population, transportation and market systems, social problems. Bibliography and sources of information. Brand. II. Social, Economic, and Political Life: An understanding of the differences between Latin and Anglo-Saxon America and a basis for a satisfactory relationship are sought through a survey of the principal factors which contribute to the development of Latin America's social, economic, and political life and on the basic issues of today, such as land distribution, public health, popular education, formation of the middle class, economic nationalism, standard of

## ARTS AND SCIENCES

Basic Upper Division Courses (To be taken by juniors andseniors.)
ANTHROPOLOGY
105 b The American Indian: South America ..... 3
119 Cultures and Races of Europe ..... 3
146 Geography of the Pacific Area ..... 2
184 Archaeology of Mexico, Central America, and the West Indies ..... 3
188 b Cultural Geography: Latin America ..... 3
ART
153 History of Art-Contemporary Mexican Painters ..... 2
BIOLOGY
*105 Ethnobiology of the New World ..... 3
ECONOMICS
119 Current Problems of Foreign Trade ..... 3
121 ab Economics and Trade of Latin America ..... 4
GOVERNMENT
141 International Relations or ..... 3
142 Contemporary World Politics ..... 3
155 The Governments of Latin America ..... 3
HISTORY
161 ab History of Latin America ..... 6
163 ' The A. B. C. Powers in Recent Times ..... 3
165 History of Spain ..... 3
168 Mexico and the Caribbean ..... 3
PHILOSOPHY
123 Hispanic Thought ..... 2
SOCIOLOGY
107 ab Man and Society in Latin America or ..... 4
111 ab Social Problems of Latin America ..... 4
154 Race and Culture Relations ..... 3
Required of all students in this major: Economics 121 ab and Biology 105 ..... 7
To be chosen from among the courses listed in Anthropology,Art, Economics, Government, History, Philosophy, andSociology with a maximum of departments to be repre-sented (Courses listed above when not included in thiscount are acceptable as electives)17-18
Total credits ..... 24-25

* The prerequisite of 4 hours of Biology is waived for majors in InterAmerican Affairs. This course can be applied toward the Group IV require. ment in Mathematics and Science. (See p. 6o.)


## ARTS AND SCIENCES

Computation of Credits. Required for the B.A. degree: 124 credits (plus four semester hours in Physical Education) to be met as follows:
Group I. English Requirement: English 1 ab and 3 credits in a course in literature numbered above 50 ..... 9
*Group IV. Mathematics and Science Requirements: The requirement for all students in Mathematics and Science is 11 credits. Biology 105 (a basic required course in this major) counts three credits. Remainder ..... 8
Gateway Courses: (Will meet Group III, Social Science Requirement) ..... 30
Basic Upper Division Courses ..... 24-25
Elective and Spanish Courses. The number of electivesavailable to the student will depend on the amount ofwork in Spanish he has done in high school. Besidesthe elections from courses listed under "Basic UpperDivision" a minimum of 20 free elective credits will beavailable for those students who begin the study ofSpanish in their freshman year. No student will be per-mitted to take more than 12 elective credits in the samesubject. The required third and fourth year Spanishcourses are 91 ab ( 6 cr .); 93 ab or 95-96 ( 4 cr .); 131 abor 145 ab ( 4 cr .); and 157 ab or 163 ab ( 4 cr .) (Will meetGroup II, Foreign Language Requirement). Note:Students may be absolved from the Spanish requirementby passing reading knowledge or proficiency examina-tions, corresponding to the attainment of two and fouryears college Spanish, respectively . . . . . . . . . . . . . . . . 53-54
Total credits ..... 124-126

Degree and Spectalization Groups. The degree granted will be a B.A. in Inter-American Affairs. Students, however, should consult the director of the School and apply their electives for further specialization in any of these aspects of the major field.
I. Historical and Cultural.
II. Business Administration.
III. Social, Economic, and Political Affairs.
IV. Regional (The Hispanic Southwest).

Supplementary Courses (Elective). Listed below by numbers are the courses recommended as electives. For full descrip-

[^8]
## ARTS AND SCIENCES

tion see the sections of the various departments. For their application to the specialization groups, consult the director of the School.

Many of these courses have certain departmental admission requirements which the student must meet. In order to facilitate the enrollment of majors in Inter-American Affairs, however, certain departments have found it possible, without detriment to their standards of work, to waive all or part of their prerequisites for admission to some of the courses listed as electives.

Note that by faculty regulation, a maximum of 24 credits in colleges other than Arts and Sciences (i. e., Education, Fine Arts, Engineering), with certain exceptions, may be applied toward a B.A. degree in that College.

Anthropology 7, $53 \mathrm{ab}, 55,70,75 \mathrm{~F}, 95,99,101,102,105 \mathrm{a}, 110$, 113, 198, $141 \mathrm{ab}, 148,150,175 \mathrm{~F}, 180 \mathrm{ab}, 181 \mathrm{ab}, 182 \mathrm{ab}, 188 \mathrm{a}$, 193, 198, 199 F
Art (Painting and Design) $1 \mathrm{ab}, 25,52 \mathrm{ab}, 75 \mathrm{ab}, 125,133 \mathrm{ab}$. $152 \mathrm{ab}, 175$
*Biology 41, 48, $163 \mathrm{~L}, 171 \mathrm{~L}$
Dramatic Art $1 \mathrm{ab}, 3 \mathrm{ab}, 10 \mathrm{ab}, 92 \mathrm{ab}$
Economics and Business Administration. Economics: $51 \mathrm{ab}, 63$, 105, 111, 140, 141, 143, 154, 160; Business Administration: $53 \mathrm{ab}, 65,101,102,103 \mathrm{ab}, 104,107 \mathrm{ab}, 108,109,110,112,157$
Education 101, 102, $105 \mathrm{ab}, 107,109,112$
Engineering 111, 156
English $51 \mathrm{ab}, 52 \mathrm{ab}, 54,55,58,59,63,64 \mathrm{ab}, 68,75 \mathrm{ab}, 77,80$, $82,84,85,132,147,149,161,164,165,166$
*Geology 51, 54, 61, 105
Government and Citizenship $51 \mathrm{ab}, 103,121,143,167,169,175$
History 31, $51 \mathrm{ab}, 71 \mathrm{ab}, 102,107,122,123,135,141 \mathrm{ab}, 146,151$, 171, 178, $181 \mathrm{ab}, 191 \mathrm{ab}$
Library Science, 21
*Mathematics 14, 15, 42, 87, 131 ab
Modern Languages and Literatures: French, German, and Italian
Portuguese, 1 ab, $51 \mathrm{ab}, 151,157$
Music 36 ab, 171, 172, 180, 193
Philosophy 40, 53, 55, 56, 64, 72, 102, $141 \mathrm{ab}, 176,191$

* Can be applied toward the Group IV requirement in Mathematics and Science. (See p. 6o.)


## ARTS AND SCIENCES

${ }^{*}$ Physics $53 \mathrm{ab}, 117 \mathrm{abL}$
*Psychology 54, 56, 101, 183, 198
Sociology 65, 66, 71, 105, 106, 115, 164, 195
Spanish 95, 96, $101 \mathrm{ab}, 105 \mathrm{ab} 107 \mathrm{ab} 115$, 12 l ab , 191 ab , $145 \mathrm{ab}, 15 \mathrm{ab}, 153,157 \mathrm{ab}, 161,162,163 \mathrm{ab}, 165 \mathrm{ab}, 171$, 180 ab

Other Advanced Courses. Attention is called to honors work, senior seminars, problems, or advanced reading courses in the Departments of Anthropology, Art, Biology, Dramatic Art, Economics and Business Administration, English, Government and Citizenship, History, Philosophy, Sociology, and Spanish, where well-qualified students may pursue studies in the Southwestern or Latin-American field under supervision of some member of the departmental staff.

Summer Session. For other courses which may be credited to the Gateway, Basic, or Supplementary Groups in this major, and which are offered occasionally in the summer, please consult the Summer Session Bulletin under the section "School of InterAmerican Affairs."

For advanced standing admission to this major, sample program of electives, Spanish in relation to electives, and other information, consult the director of the School.

## MASTER'S DEGREE IN INTER-AMERICAN AFFAIRS

Facilities for graduate work in the field of Inter-American Affairs leading to the degree of Master of Arts have been provided through inter-departmental committees within the Graduate School which will approve and supervise programs of study correlating the various subjects offered by the departments. The individual needs of students and preferences for certain lines of specialization will be taken into consideration.

Students will be admitted to graduate study in Inter-American Affairs with (a) the degree of Bachelor of Arts with a major in Inter-American Affairs from the University of New Mexico, or its equivalent from another institution; or (b) the degree of Bachelor of Arts with a minimum of fifteen hours in LatinAmerican studies and a reading knowledge of Spanish.

For further information see the Graduate School Bulletin.

[^9]
## ARTS AND SCIENCES

A TWO-YEAR COURSE FOR SECRETARY-INTERPRETERS WITH SPECIALIZATON IN INTER-AMERICAN RELATIONS

New Mexico occupies a very advantageous position for training of this type. Over half the population of the state is of Spanish speech and descent, and a large proportion of the graduates of high schools have received an intensive training in the Spanish language. It should be possible therefore to develop adequately in the space of two years the student's proficiency in this five-angled field:
(a) English practice and expression and their relation to Spanish.
(b) Spanish practice and expression and their relation to English.
(c) A reading knowledge of Portuguese.
(d) A general knowledge of Latin-American countries and of sources of information.
(e) Secretarial technique, including typing and shorthand, both in English and Spanish.

Inasmuch as Spanish is a living tongue in New Mexico, graduates of this vocational course, whether of Spanish or AngloSaxon descent, after they have perfected their knowledge of spoken and written English and Spanish, should be expected to be able to act not only as secretaries but as interpreters as well. The demand for bilingual young men and women thus equipped is very great at present not only in the governmental, business, and cultural circles of this country, but also in those of the Latin: American countries.

The curriculum for this course aims to balance the training in secretarial technique and practice with academic studies which will increase the intellectual outlook and competence of the student and qualify him for positions of responsibility.

This course is articulated with the General Business Course given in the General College and the B.A. in Business Administration and will be under the direction of a Committee on Secretarial Training composed of the head of the Department of Economics and Business Administration (Chairman) and representatives from the College of Education and the School of Inter-American Affairs. The College of Education offers a teachers' course in commercial subjects.

Admission. Students will be admitted from accredited high schools. They must present at least 4 units of high school Span-

## ARTS AND SCIENCES

ish, or two years of college Spanish or its equivalent, or pass a reading knowledge test in the language.

Curriculum.


The above program is devised for students not having had any previous business training. It will be adjusted according to the preparation of the student. For instance, in the cases of students with a knowledge of general typing and shorthand or advanced proficiency in Spanish, the corresponding credits will be earned in other courses recommended by the director of the School in consultation with the Committee on Secretarial Training of the School. It should also be possible to speed up the training in typing and shorthand through competence tests, thus releasing some of the credits for electives.

This Course will in all likelihood be pursued by college graduates who now enter business schools to gain secretarial training. Such students will already have credits for English Composition, and may, therefore, use the equivalent hours for electives. In general, students will be permitted to take examina-

[^10]
## ARTS AND SCIENCES

## tions in any of the courses listed, and if they pass them, the

 credits involved will be released for electives.The following courses are generally recommended:
Business 3 abL. Bookkeeping ..... 6
Business 4. Introduction to Business ..... 3
Business 6. Salesmanship ..... 2
Business $8 a b$. Business Legal Practice ..... 6
Bus. Administration $53 a b$. Principles of Accounting ..... 6
Business Administration 157. Office Procedure ..... 3

Whenever possible, classes will be scheduled in late afternoon and evening in order to facilitate the attendance of persons holding daytime jobs.

Registration fees will be apportioned on a credit basis that will permit the enrollment of part-time students.

Certificate. The School of Inter-American Affairs will grant a Certificate of Secretary-Interpreter with Specialization in Inter-American Relations upon the fulfillment of the following requirements:
I. The successful completion of the program of studies, with a grade-point average of at least one in the total number of hours in which the student has registered.
II. The passing of a final comprehensive examination patterned after the standard forms of civil service examinations for secretarial positions, and including test questions on Latin America, Spanish language proficiency, and a reading knowledge of Portuguese. A numerical rating will be given closely corresponding to that given in civil service examinations. This examination will be administered by a committee of three, representing a federal agency, a state agency, and the School of Inter-American Affairs.

A ONE-YEAR POST-GRADUATE COURSE IN INTER-AMERICAN RELATIONS FOR MAJORS IN SCIENCE DEPARTMENTS AND GRADUATES OF TECHNICAL SCHOOLS.

The School of Inter-American Affairs is attempting to equip technicians with a reasonable background knowledge of Latin America. To this end it has organized an intensive one-year post-graduate course in inter-American relations for graduates of schools of engineering, agriculture, medicine, library science, business, commerce, and social work, as well as for graduates of colleges of arts and sciences who have majored in exact or natural sciences, economics, or business adminstration, and in general for

## ARTS AND SCIENCES

students in the various techniques who because of intensive specialization have not had an opportunity to acquire an adequate training in Latin-American affairs during the regular period of study.

This post-graduate course aims at furnishing the information and guidance deemed indispensable for truly effective work in Latin America or with Latin Americans. Students completing this course should be able to utilize more fully their professional training, here in our country as well as in Latin America, for the promotion of social and economic relations between the United States and its hemisphere neighbors. The vital importance of such efforts for the duration of the war was obvious; and they are equally important in the post-war period if we are to consolidate and preserve the gains which we have made and contribute to the shaping of a permanent system of international peace and security.

The course is planned to provide:
I. Intensive laboratory-type training in written and spoken Spanish.
II. An introduction to the land and people of Latin America and to their social, economic, and political life.
III. A foundation knowledge of Portuguese or training in certain business skills.
IV. Continuation of science studies.

This course is administered by a committee composed of the dean of the College of Engineering (Chairman), the dean of the Graduate School, and representatives of the science departments in the College of Arts and Sciences and of the School of InterAmerican Affairs.

Contacts are being established and will be maintained with companies and organizations doing business or field work in Latin America for the placement of our students and also to ascertain their particular needs in the training we are offering.

Admission. Students must offer for admission two years of college Spanish or its equivalent, or pass a reading knowledge examination in the language.

Curriculum.

First Half
Spanish 93 a. Interm. Comp. \& Conv.
Spanish 95. Span. Business-Letter Writing
Sociology 73 a. Intro, to Latin America.
Portuguese or Electives (Accounting, Marketing, Spanish Shorthand, etc.)
Continuation of science studies or other electives deemed advisable in Spanish, Business, and LatinAmerican subjects (cases will be considered individually) 6-7 Total credits 16-17

Second Half
Spanish 93 b. Interm. Comp. \& Conv. 2
Spanish 96. Com'l. \& Indus. Lang
Practice in Hispanic Countries 2
Sociology 73 b . Intro. to Latin America 3
Portuguese or Electives (Account- ; ing, Marketing, Spanish Shorthand, etc.)

3
Continuation of science studies or other electives deemed advisable in Spanish, Business, and Latin-American subjects (cases will be considered individually) . 6--7
Total credits $\quad 16$-17

Inasmuch as undergraduate students in the College of Engineering can elect 24 credits in other colleges, it is strongly recommended that those intending to follow this post-graduate course take while they are undergraduates as many of the courses listed here as possible. If the student does this and has a good preparation in Spanish both in high school and in college, it may be possible for him to take practically all subjects in courses numbered 100 or above and thus obtain more credits toward the Master's degree.

A certificate attesting the successful completion of the course will be given to regularly enrolled students after they have passed all the examinations with a grade of C or above in each of the courses taken. Credits earned in courses numbered 100 or above may be later applied toward the Master's degree.

## COMBINED CURRICULUM IN ENGINEERING AND ARTS AND SCIENCES

Degrees in both the College of Arts and Sciences and the College of Engineering may be obtained by following a five-year curriculum, to be outlined in each case, jointly, by the deans of the two colleges.

Attention is called to a combined curriculum in Engineering and Inter-American Affairs. Students interested should confer with the deans, preferably upon entering the University or during their freshman year, and not later than the beginning of their sophomore year.

## ARTS AND SCIENCES

COLLEGE OF ARTS AND SCIENCES
DEPARTMENTS OF INSTRUCTION
Courses numbering: from 1-50, lower division, normally open to freshmen; from 51-100, lower division, normally open to sophomores; from 101-200, upper division, normally open to juniors, seniors, and graduates; 201-300, open to graduates only. Graduate credit for courses listed is allowed at the discretion of the Graduate Committee.

Symbols used in course descriptions: ab or cd-course offered throughout two semesters; L-part of the course is laboratory work; F -course is given during field session; SS -course offered in eight weeks' summer session only; Yr -courses offered throughout two semesters and credit for a single semester's work is suspended until the entire course is completed; I-course offered in first semester only; II-course offered in second semester only; "course open to General College students; $\dagger$-course offered for General College credit only; ()-credit value for each course for each semester; []-former course number or title.

A schedule of course offerings, including hours of meeting, is issued at the opening of each session. The University reserves the right to cancel any listed course or to make a substitution in instructors when necessary.

## ORIENTATION

All freshmen, with less than 20 hours of college credit, enrolled in the College of Arts and Sciences are required to complete Orientation 9.

## *2. Orientation. (1-2) Reading and study laboratory. Exercises designed to correct deficiencies among beginning students. <br> Staff

*9. Health. (1)
Dr. Harris

## ANTHROPOLOGY

Professors Brand (Head), Hill, Spier; Assistant Professors Hawley, Hibben; Instructor Reiter.
GROUP REQUIREMENTS
Courses in this department count toward Social Sciences (Group III).

## MAJOR STUDY

Anthropology 1 ab and 30 more hours within the department. Other prerequisites: Biology 1 L and 2 L , Geography 53 ab , History 1 ab , Geology 1 and 2, Psychology 1 abL , or
equivalents. The four majór divisions of anthropology courses are archaeology, anthropogeography, ethnology, and topical. A student specializing in one of the first three must take a minimum of 12 hours in that division and a minimum of 6 hours in each of the other three major divisions. Upper division courses from other departments, chosen with the advice of the head of the department, are acceptable as electives toward a major in anthropology.
MINOR STUDY
.14 hours in addition to Anthropology 1 ab.
*1 ab. General Anthropology. (3-3) Hibben, Hill
*7. Survey of Southwestern Anthropology. (3) A nontechnical course not credited toward the major or minor in anthropology.

Hawley
*53 ab. Anthropogeography. (3-3) The interrelationships
of man and the earth.
*55. Human Geography of New Mexico. (3) Brand
59 L. Museums and Their Work. (2) Museum administration, exhibition, and curatorial work. 1 lecture, 3 hrs . lab. Hibben
60 L. Museum Methods. (2) The study and treatment of museum and field material.

Reiter
66 L. Archaeologic Field Technique. (2) Methods and materials involved in excavations; field surveying and recording; care of archaeologic material in the field. Reiter

> *70. Survey of Anthropology. (2) The sub-divisions of anthropology. A non-technical course not credited toward the major or minor. Reiter 73 ab. Introduction to Latin America. (3-3) (Same as Economics $73 \mathrm{ab},-$ Government 73 ab , and Sociology 73 ab$).$ Brand, Jorrín

75 F. General Field Session. (2-6) Introductory summer field course in archaeology, ethnology, or anthropogeography.
95. Maps and Charts. (2) Brand.
97. Introduction to Classical Archaeology.
(3) Hibben
99. Comparative Social Structure. (3)

Hill

## ARTS AND SCIENCES

General prerequisite (except for 102): Anthropology 1 ab or equivalent.

## I-ARCHAEOLOGY

110. Southwestern Pottery. (2) Historical development of ceramic art.

Hawley
111. European Prehistory. (3) Early European cultures. Human development as shown in physical and cultural remains.

Hibben
160. Archaeology of the Old World. (3) Prehistory of Africa, Asia, Oceania.

Hibben
180 ab . [180, 103] Archaeology of the Southwest. [Archaeology of the Southwest, Chronology in Archaeology.] (3-3) 2 lectures, 2 hrs. lab. Hawley
182 ab. [182, 183] American Archaeology. (3-3) a: North America; b: South America. Reiter

> 184. Archaeology of Mexico, Central America, and the West Indies. (3) Brand

## II-ETHNOLOGY

105 ab. The American Indian. (3-3) a: North America; b: South America.

Hill
138. Northwest America and Northeast Asia. (3) Hill
139. Ethnography of Africa. (3) Spier
$141 \mathrm{ab} .[140,142]$ Analysis of Culture Areas. [Culture Provinces of Western North America, Plains Indian Cultures] (3-3)! In alternate years: a: California-Basin-Plateau; b: Plains Area.
148. Oceania. (3) Hill

181 ab. [181, 171] Ethnography of the Southwest. [Ethnology of the Southwest, Pueblo Ethnology] (3-3) Hawley
III-ANTHROPOGEOGRAPHY
113. Cumatology. (3) Recommended: a reading knowledge of German; Physics 15 or Anthropology 53 ab . Brand
119. Cultures and Races of Europe. (3) Brand
146. Geography of the Pacific Area. (2) Brand

188 ab . Cultural Geography. (3-3) Natural divisions and their utilization under different cultural systems. a: Old World excluding Europe; b: Latin America. Recommended: 53 ab and 119.

Brand

## IV́-TOPICAL

101. The Individual in His Society. [Anthropology in the War.] (3) The individual in his pattern of culture;

## ARTS AND SCIENCES

reasons for social change or stability; the individual in this changing world.

Hawley


#### Abstract

102. Perspectives, of Anthropology. (3) Essential concepts of the nature of culture and of racial relationship, with special reference to contemporary situations and problems. No prerequisites.

Spier


104 L. Dendrochronology. (3) The science of tree ring studies applied to archaeologic problems. Prerequisite: permission of instructor. 1 lecture, 4 hrs. lab.

Hawley
108 abL . [ 108 L ] Physical Anthropology. (3-3) Reiter
144. Material Culture Analysis. (3) Methods of analyzing archaeologic, non-ceramic material traits and the systematic presentation of excavated materials: 1 lecture, 4 hrs. lab.

Reiter
150. Methods in Cultural Anthropology. (3) Hawley
174 L. Advanced Dendrochronology. (2) Prerequisite:
104 L .

175 F. Advanced Summer Field Session. (2-6) Advancec work for upper division and graduate students. Prerequi site: 75 F or equivalent.
193. History of Anthropology [Senior Seminar]. ${ }_{\text {Hill, }}^{\text {(2) Reiter }}$

194 ab. Anthropological Methods. (2-2) A consultation course. Prerequisite: permission of instructor. Spier
198. Primitive Religion. (3) Hill

199 F. Field Research. (2-6) Summer field course. Prerequisites: 75 F and 175 F or equivalents.
205. Pro-Seminar. (2) Introduction to research. Required of graduate students. Recommended: a reading knowledge of Spanish, French, or German.

Graduate Staff
206. Survey of Current Anthropology. (2) Spier
212. Ethnology. (2)

Hill
225. Seminar: Anthropogeography. (2) Subjects in successive semesters will be: Mapping Culture Element Distributions; Primitive Agriculture; Land Settlement Forms in Latin America; Origins of New World Cultivated Plants.

Brand
251 ab . Problems. (2-2) Graduate Staff
294. Seminar: Southwestern Archaeology. (2) Hawley
300. Thesis. (2-6) Graduate Staff

## BIOLOGY

Professor Castetter (Head); Associate Professor Koster; Assistant Professors Dittmer, Fleck, Lindsey; Graduate Fellows Hawrylko, Spensley.

## GROUP REQUIREMENTS

Courses in this department count toward Science and Mathematics (Group IV).

## MAJOR STUDY

Biology 1 L, $2 \mathrm{~L}, 71 \mathrm{~L}, 72 \mathrm{~L}, 109$, 143 L or 144 L , and 9 additional hours, 5 of which must be in courses numbered above 100. Courses $33 \mathrm{~L}, 36,39 \mathrm{~L}, 41$, and 48 are not accepted toward a major. One year of chemistry is required of biology majors.

## MINOR STUDY

Biology 1 L and 2 L , and 12 additional hours to be selected from the following: 39 L , or 143 L or $144 \mathrm{~L}, 163 \mathrm{~L}, 48$ or 109 , $71 \mathrm{~L}, 72 \mathrm{~L}, 93 \mathrm{~L}, 96 \mathrm{~L}, 105,114 \mathrm{~L}, 171 \mathrm{~L}$, and 185 L .

## CURRICULA PREPARATORY TO FORESTRY, MEDICAL

TECHNOLOGY, MEDICINE, DENTISTRY, OR VETERINARY SCIENCE See "College of Arts and Sciences."
1 L . [1 aL] General Biology. (4) In introduction to the fundamental structures, functions, and principles of higher plants and animals with emphasis on the unity, rather than the diversity, of phenomena. 3 lectures, 3 hrs l lab.

Castetter, Koster, Dittmer
2 L . [1 bL] General Biology. (4) A continuation of 1 L . Survey of the plant and animal kingdoms; heredity, environmental relations, and evolution. Prerequisite: 1 L .3 lectures, 3 hrs. lab.

Castetter, Koster, Dittmer
33 L . Microbiology. (3) An elementary survey of those forms of microscopic life of importance in nursing. Practical exercises on the procedures involved in aseptic technique. 2 lectures, 2 hrs. lab. (For nurses only.) . Lindsey
*36. Human Physiology. (3) I Functions of the human body. May be taken with, or independently of, 39 L . Dittmer
*39 L. Human Anatomy and Physiology Laboratory. (2) I Laboratory work in elementary anatomy and physiology. Cannot be taken independently of Biology 36. Dittmer
*41. Survey of New Mexico Plant Life. and demonstrations.
(2) SS Lectures Dittmer

*48. | Heredity. (2) II A cultural survey of the field of in- |
| :---: |
| heritance |

## ARTS AND SCIENCES

71 L . Invertebrate Zoology. (4) I A comparative study of the structure, habits, and classification of the invertebrates exclusive of insects. Prerequisites: 1 L and 2 L .2 lectures, 4 hrs. lab.

Koster
72 L. Comparative Plant Morphology. (4) II A comparative study of the four great groups of the plant kingdom. Prerequisites: 1 L and 2 L . 2 lectures, 4 hrs . lab. Dittmer
99 L . General Bacteriology. (4) Bacteria and related forms. Morphology, physiology, classification, cultivation, and economic importance. Prerequisites: 1 L and 2 L , Chemistry 1 L and 2 L .2 lectures, 4 hrs. lab. Lindsey
96 L . Ornithology. (4) Identification and habits of birds. Early morning field trips required. 2 lectures, 4 hrs. lab. (Offered 1947-48 and in alternate years with Biology 185 L ). Koster
105. Ethnobiology of the New World. (3) II The aboriginal picture of the utilization of plants and animals of the New World. Emphasis on the Southwest. Prerequisite: 4 hrs. of Biology.
109. Genetics. (3) I The scientific, cultural, and philosophical aspects of inheritance. Prerequisites: 1 L and 2 L .

Castetter
110. Evolution. (3) II History of the principle and theories of evolution. Prerequisite: $109 . \quad$ Castetter
112 L. Comparative Embryology of the Vertebrates. I Prerequisites: $1 \mathrm{~L}, 2 \mathrm{~L}$, and 71 L .2 lectures, 4 hrs . lab. Koster
114 L. General Entomology. (4) SS Structures, habits, and classification of the insects. Prerequisites: 1 L and 2 L . 2 lectures, 4 hrs. lab.

Koster
121 L. Comparative Vertebrate Anatomy. (5) II Prerequisites: $1 \mathrm{~L}, 2 \mathrm{~L}$, and 71 L .2 lectures, 6 hrs . lab.

Koster, Fleck
182 L Advanced Bacteriology. (4) II Principles of the life activities, growth, and morphology of bacteria; emphasis on pathogenic forms. Prerequisites: 93 L , and 143 L or 144 L . Organic chemistry is strongly recommended. 2 lectures, 4 hrs. lab.

Fleck
143 L. General Physiology. (4) I Cell physiology, absorption, photosynthesis, digestion, translocation, circulation, and respiration. Prerequisites: 12 hrs. of Biology, and Chemistry 1 L and 2 L .2 lectures, 4 hrs. lab. Fleck and assistant
144 L. General Physiology. (4) II Metabolism, excretion, transpiration, muscle action, nerve and sense organs, growth
and correlation, and reproduction. Prerequisites: 12 hrs . of Biology, and Chemistry 1 L and 2 L . Organic chemistry is strongly recommended. 2 lectures, 4 hrs. lab.

Fleck and assistant
163 L. Flora of New Mexico.
(4) I Prerequisites: 1 L and 2 L. 2 lectures, 4 hrs. lab.
Dittmer

171 L. General Ecology. (4) 1 Animals and plants in relation to their various natural environments. Applications to soil conservation, forestry, and wildlife management. Frequent field trips. Prerequisites: 1 L and 2 L . 2 lectures, 4 hrs. lab.

Lindsey
174 L. Plant Anatomy. (4) II Structure of vascular plants. Prerequisites: $1 \mathrm{~L}, 2 \mathrm{~L}$, and 72 L .2 lectures, 4 hrs. lab. (Offered in alternate years with Biology 184 L.$)$ Lindsey
184 L. Mycology and Plant Pathology. [Plant Pathology] (4) A comparative study of the fungi with some consideration of bacteria and causative factors in plant diseases. Prerequisites: $1 \mathrm{~L}, 2 \mathrm{~L}$, and 72 L .2 lectures, 4 hrs. lab. (Offered in 1947-48 and in alternate years with Biology 174 L .)

Dittmer
185 L. General Vertebrate Zoology. (4) II Natural history, classification, behavior, ecology, and speciation of the vertebrates exclusive of the birds. Prerequisites: 1 L and 2 L. 2 lectures, 4 hrs . lab. (Offered in alternate years with Biology 96 L.)

Koster
201. Seminar. (2) II Topic for study will be selected at beginning of each semester.

Lindsey
225. [198] Fundamental Concepts of Biology. (3) I 'Trend of scientific thought and method from earliest times to the present. Origin and history of important biological principles.

Castetter

## 251. Problems. (2-3)

252. Phylogeny of the Plant Kingdom. (2) II Evolutionary trends with emphasis on the vascular plants. Dittmer
253. Principles of Economic Vertebrate Zoology. (2) II The biotic effect of human settlement upon the vertebrates. Principles underlying management and control. Koster
254. Thesis. (4-6)

Graduate Staff

## BUSINESS ADMINISTRATION

See Economics and Business Administration.

## CHEMISTRY

Professors Smith (Acting Head), Riebsomer; Assistant Professor Martin; Instructors Gibson, Searcy.

## GROUP REQUIREMENTS

Courses in this department count toward Science and Mathematics (Group IV).

MAJOR STUDY
For the Cultural Major: Chemistry $1 \mathrm{~L}, 2 \mathrm{~L}, 55 \mathrm{abL}, 101 \mathrm{abL}$, 111 aL , and at least 4 additional hours selected from courses numbered above 100 .

For the Professional Major: Chemistry IL, $4 \mathrm{~L}, 57 \mathrm{abL}$, $103 \mathrm{abL}, 111 \mathrm{abL}, 181 \mathrm{ab}$, and at least 6 additional hours selected from courses numbered above 100 . The program must also include 12 hours of German.

## MINOR STUDY

Twenty-two hours, including $1 \mathrm{~L}, 2 \mathrm{~L}, 55 \mathrm{abL}$, and 101 abL . 40 abL does not count toward the minor.
$1 \mathbf{L}$ :[1 a \& 1 aL] General Chemistry [Inorganic Chemistry and Lab.] (4) Yr Introduction to the chemical and physical behavior of matter. Atomic and molecular structure. Descriptive chemistry of the common elements. Credit suspended until 2 L or 4 L is completed. 3 lectures, 3 hrs . lab.

Staff
2 L. [1 b \& 1 bL$]$ General Chemistry. [Inorganic Chemistry and Lab.] (4) Continuation of 1 L and including some qualitative analysis. 3 lectures, 3 hrs. lab. Staff
4 L. General Chemistry and Qualitative Analysis. (5) Continuation of 1 L , with special emphasis on qualitative analysis. For professional majors in chemistry and chemical engineering. 3 lectures, 6 hrs . lab.

Staff
40 abL . Fundamentals of Chemistry-General Inorganic and Organic. (5-5) A one-year course designed for students in home economics, nursing, and physical education. Not acceptable as prerequisite to subsequent courses in chemistry. The lectures of this course may be elected separately by those wishing a restricted course in chemistry. 3 lectures, 6 hrs . lab.
$55 \mathrm{abL} .[51$ \& 52 abL$]$ Quantitative Analysis. [Second Year College Chemistry, Quantitative Analysis] (3-3) The-ory and techniques of volumetric and gravimetric analysis. For cultural majors, minors, and students of pharmacy. Prerequisites: 1 L and either 2 L or 4 L . 1 lecture, 6 hrs . lab. Martin

## ARTS AND SCIENCES

57 abl. Quantitative Analysis. (4-4) A more extensive course than 55 abL, for professional majors in chemistry and chemical engineering. Prerequisites: 1 L and either 2 L or 4 L . 1 lecture, 8 hrs . lab.

Martin
$101 \mathrm{abL} .[102 \mathrm{abL}]$ Organic Chemistry. (4-4) The chemistry of the compounds of carbon. For cultural majors, minors, and students of pharmacy. Prerequisite: 55 aL or 57 aL .3 lectures, 3 hrs lab.

Riebsomer
103 abL. Organic Chemistry. (5-5) A more extensive course than 101 abL , for professional majors in chemistry and chemical engineering. Prerequisite: 57 aL .9 lectures, 6 hrs. lab.

Riebsomer
105 L. Qualitative Organic Analysis. [Quantitative Biochemical Methods] (3) I Identification of carbon compounds through the characteristic reactions of functional groups. Prerequisite: 101 bL or 103 bL . 1 lecture, 6 hrs . lab.

Riebsomer
108. Advanced Topics in Organic Chemistry. (3) II Selected topics in organic chemistry. Prerequisite: 101 bL or 103 bL .

Riebsomer
111 abL. [109, 110, 111 L] Physical Chemistry.
Physical Chemistry, Physical Chemistry, \& Lab.] (4-4) Chemical theory. The gaseous, liquid, and solid states. Theory of solutions. Chemical and physical equilibria. Chemical thermodynamics. Electromotive force. Prerequisites: Physics 1 abL and Mathematics 53 ab .3 lectures, 3 hrs. lab.
115. Structure of Matter. (3) I Atomic and molecular structure. The nature of chemical bonding. Chemical consequences of structure. Prerequisite: 101 bL or 103 bL .

Smith
130. Advanced Inorganic Chemistry. (3) II Selected topics
in inorganic chemistry. Prerequisite:
101 bL or 103 bL .
Martin

142 L. Instrumental Analysis. (3) II Application of instrumental methods to chemical analysis. Prerequisites: 57 abL and 111 aL .1 lecture, 6 hrs. lab. Martin
181 ab . Seminar. (1-1) Exposition and discussion of current topics in chemistry. Required of senior professional majors and graduate students.
199 ab . Undergraduate Problems. ( $2-5$ each semester) Staff
251 ab. Problems. (2-5 each semester) Graduate Staff
300. Thesis. (4-6)

Graduate Staff

## CLASSICS

Not a department.

## MAJOR STUDY

Not offered.

## MINOR STUDY

A minor may be worked out if sufficient demand arises.
1 ab. Elementary Greek. (3-3) Yr. Credit suspended for I a until $1 \mathbf{b}$ is completed. (Offered only upon sufficient demand.) Staff
53 ab . Intermediate Latin. (3-3) Yr. Credit suspended for 53 a until 53 b is completed. Accepted in fulfillment of lower division foreign language requirement. (Offered only upon sufficient demand.)

Staff

## ECONOMICS AND BUSINESS ADMINISTRATION

Professor Sorrell (Head); Associate Professors Popejoy, Strahlem; Assistant Professors Dixon, Edgel, Parish; Instructors Christoffers, Israel.

## GROUP REQUIREMENTS

Courses in this department count toward Social Science (Group III) with the exception of Business Administration 53 abL and 65. Students majoring in Business Administration, or seeking the Bachelor of Business Administration degree, are required to take Mathematics 42 , which will also count toward Mathematics and Science (Group IV).

Students may elect courses offered by this department leading (1) toward the Bachelor of Arts degree with a major in Economics, (2) toward the Bachelor of Arts degree with a major in Business Administration, or (3) courses leading to the professional degree, Bachelor of Business Administration.

Economics.
MAJOR STUDY
(Leading to Bachelor of Arts degree.) 30 hours including $51 \mathrm{ab}, 111$, Business Administration 53 a , and 12 hours in Economics including 154 and 160. The remainder may be in Business Administration.

## MINOR STUDY

Eighteen hours, including 51 ab , of which 12 must be in Economics. The remainder may be in Business Administration.
1 ab . Introduction to Social Science. (3-3) Yr. (Same as Government 1 ab and Sociology 1 ab.$)$ A study of current
social, economic, and political problems, with particular reference to the United States. Credit suspended until both semesters are completed.

Staff
51 ab . Introduction to Economics. (3-3) Yr. A prerequisite to all advanced courses in the department unless otherwise indicated. Prerequisite: sophomore standing. Credit for 51 a suspended until 51 b is completed. Sorrell, Dixon
*63. Economic Resources. (3) II A general survey of the basic economic resources of the world.

Sorrell
73 ab . Introduction to Latin America. (3-3) (Same as Anthropology 73 ab , Government 73 ab , and Sociology 73 ab.$)$. Brand, Jorrín
General prerequisite: Economics 51 ab or 105, unless otherwise stated.
-105. Principles of Economics. (3) I Primarily for students who are not majors in the department. Prerequisite: upper division standing, except for sophomore engineers. Sorrell
111. Money and Banking.
(3) II

Parish
119. Current Problems of Foreign Trade. (3) II (Same as Government 119).

Kleven
121 ab . Economics and Trade of Latin America. (2-2) a: Survey of economic life; b: trade relations, investments, economic planning. Prerequisite: Economics 73 ab. Jorrín
140. Economic Security. (3) II The meaning and extent of poverty and insecurity, and methods of dealing with these problems.

Walter
141. Labor Problems. (3) I The position of the laborer in
modern society.
143. Transportation. (3) II Inland transportation with special attention to railroads. Parish
152. Public Finance. (3) II The theory and practice of taxation, governmental borrowing, financial administration, and public expenditures.

Dixon
154. Comparative Economic Systems. [Modern Economic
Reform.] (3) II A critical analysis of the proposed major
reforms of the existing economic system.
160. Economic Theory. (3) I Sorrell
165. Public Utilities. (3) I A study of the principles and
problems in the utilities field.
Parish
178. Recent History of the United States. (3) (Same as History 178.) Accepted toward the major only.

| $198 \mathrm{ab} . \quad$ Seminar. | (2-3 each semester) | Staff |
| :--- | :--- | :--- |
| $251 \mathrm{ab} . \quad$ Problems. | (2-4 each semester) | Graduate Staff |
| 300. | Thesis. | $(4-6)$ |

## BUSINESS ADMINISTRATION

THE DEGREE OF BACHELOR OF BUSINESS ADMINISTRATION
The degree of Bachelor of Business Administration (B.B.A.) is awarded upon the completion of ( 1 ) regular minimum requirements for the bachelor's degree in the College of Arts and Sciences, (2) 48 hours in Economics and Business Administration courses numbered above 50, including Economics 51 ab , Business Administration $53 \mathrm{ab}, 65,107 \mathrm{ab}, 108,109,110$, Economics 111, (3) at least 40 per cent of the hours presented for graduation must be in fields other than Economics and Business Administration. A minor is not required.

MAJOR STUDY
(Leading to the Bachelor of Arts Degree.) Economics 51 ab , Business Administration $53 \mathrm{ab}, 107 \mathrm{ab}, 109$, Economics 111, and 6 additional hours in Business Administration or Economics.

## MINOR STUDY

Economics 51 ab , Business Administration 53 abL and 6 additional hours in Business Administration.

Curriculum for the Degree of Bachelor of Business Administration. This is a normal program for the B.B.A. degree. There may be numerous variations from it in any particular student's program.

FRESHMAN YEAR


## SOPHOMORE YEAR

| Foreign Language | 3 | Foreign Language | 3 |
| :--- | :---: | :--- | :---: |
| Literature | 3 | Econ. 51 b | 3 |
| Econ. $5^{1}$ a | $\mathbf{3}$ | B. A. 53 b | 3 |
| B. A. $53^{\text {a }}$ | $\mathbf{3}$ | Econ. 63 | 3 |
| B. A. 65 | 3 | Elective | 3 |
| P. E. | $\mathbf{1}$ | P. E. | 1 |
|  | - |  | - |
|  | $\mathbf{1 6}$ |  | 16 |

## ARTS AND SCIENCES

JUNIOR YEAR

| B. A. 107 a | 3 B. A. 107 b | 3 |
| :---: | :---: | :---: |
| B. A. 109 a | 3 B. A. 103 b | 3 |
| B. A. 108 | 3 B. A. 109 | 3 |
| Electives | 6-7 B. A. 110 | 3 |
|  | - Electives | 35 |
|  | 15-16 | -- |
|  |  | 15:17 |
|  | SENIOR YEAR |  |
| Econ. 111 | 3 B. A. 115 | 3 |
| Econ. 141 | 3 Econ. 143 | 3 |
| Electives | 9-10 Econ. ${ }^{\text {1 }}{ }^{\text {a }}$ | 3 |
|  | - Electives | 6-7 |
|  | 15-16 |  |
|  | 5 | 15-16 |

CURRICULUM IN PUBLIC FINANCIAL ADMINISTRATION See p. 64.
*11 ab. Beginning Typewriting. ${ }^{2}$ (2-2) Not counted toward major or minor. 3 one-hour periods per weèk. Israel
*12 ab. Shorthand Theory and Beginning Dictation. ${ }^{1}$ (3-3) a: Theory; b: dictation. Not counted toward major or minor. 4 one-hour periods per week.

Israel
*51 ab. Advanced Typewriting. ${ }^{2}$ (2-2) Not counted toward major or minor. 3 one-hour periods per week. Israel
*52 ab. Dictation and Transcription. ${ }^{2}$ (3-3) Not counted toward major or minor. 4 one-hour periods per week. Israel

53 ab . [53 abL] Principles of Accounting. (3-3) Introductory accounting. Both semesters are required for a major in Business Administration. Credit for 53 a is required of Economics majors; and the course is elective for engineering, pharmacy, home economics, and other students. Credit can be obtained in 53 a without continuing in 53 b . Strahlem
55. Advanced Typewriting in Spanish. (2) I Prerequisite: B.A. 11 ab or equivalent.

Christoffers
56 ab . Spanish Shorthand Theory; Spanish Shorthand Dictation. (3-3) a: Theory; b. dictation. Prerequisite: B.A. 12 ab , adequate knowledge of Spanish; consult instructor. 4 one-hour periods per week. Christoffers
57. Advanced Spanish Shorthand, Dictation, and TranSCRIPTION. (3) I Christoffers
65. Business-Letter Writing. (3) I A Study of the art of business correspondence, including form material, letterheads, structure, content, etc.

[^11]87. Mathematics of Finance. (3) I (Same as Mathematics
87.) Accepted toward the major only.
General prerequisite: Economics 51 ab or 105 , unless other-
wise stated.
101. Analysis of Financial Statements. (3) (Not offered
in 1946-47.)
102. Governmental Accounting. (2) Accounting problems and procedures for governmental agencies and political subdivisions; accounts, budgets, statements. Prerequisite: B.A. 53 ab . (Not offered in 1946-47.)
103 ab . Intermediate Accounting. (3-3) Prerequisite: B.A. 53 ab .

Strahlem
104. Cost Accounting. (3) I Special emphasis on job order and process cost systems. Prerequisite: B.A. 53 ab . Strahlem 107 ab. Business Law. (3-3) Prerequisite: upper division standing. Sorrell
108. Marketing. (3) II Methods and institutions. Edgel
109. Business Statistics. (3) I Collection, arrangement, and interpretation of statistical material relating to business operations. Prerequisite: Mathematics 42. Edgel 110. Corporation Finance. (3) I Financial organization
and policies of the modern corporation. 112. Auditing. (3) II Prerequisites: B.A. 53 ab and 103 a . Strahlem
113. Credits and Collections. (2) II Principles and practices of credit management. Taught primarily from the point of view of the credit man.

Dixon
115. Investments. (3) II An analysis of corporation, municipal, and other securities.

Parish
123. Insurance Principles and Practices. (3) (Not offered
in $1946-47$.)
157. Office Procedure. (3) II Office equipment and procedure; taking and transcribing dictation; filing; financial statements; behavior on the job; work experience. Prerequisites: B.A. 51 ab and 52 ab .

Israel
251 ab . Problems. ( $2-4$ each semester.) Graduate Staff
300. Thesis. (4-6) Graduate Staff

## business courses for general college only

$\dagger 3$ abL. Bookreeping. (3-3) An introduction to the principles and practices of bookkeeping, including debit and credit procedure, the use of controlling accounts, special journals,
and the preparation of profit and loss and balance sheet tatements.
$\dagger 4$. Introduction to Business. (3) Up-to-date procedure, methods, and problems of modern business enterprise.
$\dagger 5$. Business Correspondence for Secretaries. (3) A study of correct sentence structure, the writing of sales, collection, and application letters, reports, etc.

Staff
$\dagger$ 6. Salesmanship. (2) The approach and appeal necessary to the consummation of a sale; selling methods which have proved successful. Students are required to engage in actual selling work.

Staff
$\dagger 8 \mathrm{ab}$. Business Legal Practice. (3-3) The theory and practical problems involved in business contracts. Staff

## ENGLISH

Professors Pearce (Head), Arms, Mitchell, Wynn; Associate Professors Smith, Wicker; Assistant Professors Crowe, Keleher,

- Simons; Instructors Blessing, Jacobs, Kuntz, Law, Rafferty, Simmons, Tedlock, Winecoff; Teaching Assistant Roberts.


## group requirements

English 1 ab is a required course for all students and counts toward English (Group I). All entering students will take an English placement examination. Those who do not show adequate preparation in the mechanics of writing will take English A (non-credit) in addition to English la. Students who pass the placement test with honors may register for special sections in lab. Additional requirements are:

College of Arts and Sciences: 3 credit hours in a course in literature numbered above 50 .

College of Engineering: English 64 a.
College of Education: 6 credit hours in courses numbered above 50. (In the elementary curriculum, these additional hours must be in literature.)

## ELECTIVES WITHOUT PREREQUISITES

The following courses in the lower division are recommended for students selecting hours for the group requirements or for general reading: $52 \mathrm{ab}, 56,75 \mathrm{ab}, 77,80,82,84,95$; not accepted as literature are $54,55,58,91$. In the upper division, courses without prerequisites are $141,147,149,164,165,185$, and 186.

## MAJOR STUDY

English $1 \mathrm{ab}, 53 \mathrm{ab}$, and 24 additional hours in courses numbered above 50. The courses taken must include 3 hours in

American literature; $91 ; 141 ; 151$ or 154 ; two courses chosen from 132, 143, 146, 148, 157, 177, 178, 181; and 198. Twelve hours must be taken in courses numbered above 100 . It, is strongly recommended that English majors take History 71 ab-if possible concurrently with English 53 ab . Students with special interest in the theater may elect Dramatic Art 90 ab toward a major study in English. Education 120, Children's Literature, will be accepted toward a major in English for those who are taking the Elementary Curriculum in the College of Education. Majors and minors who are planning to teach English should enroll in Education 155 c, The Teaching of English in High School. A comprehensive examination in English literature and language (see English 198) is required of majors.

## MINOR STUDY

College of Arts and Sciences: English 1 ab and 15 hours in courses numbered above .50. College of Education and College of Fine :Arts: English 1 ab and 18 hours in courses numbered above 50 .

## *A. Review English. (0) Fundamentals of English grammar and rhetoric.

*lab. English Composition. (3-3) a: Exposition, paragraph structure, informal essay, reading reports; $b$ : investigative paper, etymology, diction, connotation, descriptive and narrative sketches, reading reports.
20. Corrective Speech. (2) Speech composition and delivery. Meets state certification requirements. Crowe

51 ab . News Writing and Reporting. (3-3) a: Spot news b: feature writing. Writing of stories, in class and on assignment, and opportunities for free-lance reporting and writing. Credit for elective but not acceptable for group requirements.

Rafferty
*52 ab. Introduction to Modern Literature. (3-3) a: Novel, short story, drama; b: poetry, non-fictional prose.

Tedlock, Simons
53 ab. Survey of English Literature. (3-3) Required of students who expect to make English their major study.

Keleher, Kuntz
*54. Vocabulary Building. (3) Study of basic word roots and drill designed to increase vocabulary. Staff
55. Public Speaking. (3) I Principles and types of speech with emphasis on speech situation. Keleher
*56. Utopias in English Literature. (1) Literature emphasiz-ing social progress, including the works of Plato, More,Bacon, Butler, and Bellamy Staff
58. Argumentation and Debate. (3) II Wicker
59. Interpretative Reading. (2.5) SS Interpreting liter- ary material for public reading. Crowe
60. Play Production. (2) SS A course in the directing andstaging of plays; performances given by students. De Roo
63. Creative Writing. ..... (3)
Keleher64 ab . Informative Writing. (3-3) Professional expositorycomposition and the preparation of elementary reports.
Simons
68. Advanced Composition. (3) Reading and writing ofnon-fictional prose.Wicker
75 ab . World Literature.and Asiatic literature.
(3-3) Masterpieces of European
(3-3) Masterpieces of European Smith, Jacobs
*77. Southwestern Literature. (2) Myth, legend, and song of the Indians; literary values in the Spanish colonial narratives; literature of the Santa Fe trail and the cattle country; contemporary writing.

Pearce
80. The Democratic Traditions in American Literature. (3) Political, economic, and social concepts of democracy as revealed in American literature, from the earliest to contemporary times.

Staff
82. American Literature. (3) A general survey to 1900 , with more extensive study of the great writers of the nineteenth century.

Smith
84. Major Poets in American Literature. (3) An intensive study of the major poets from Freneau to Robinson

Arms
85. Newspaper Desk Work. (3) Copy reading, headlining, newspaper makeup. Prerequisite: 51 ab , or semester experience on the Lobo editorial staff.

Rafferty
88. Myths and Epics. (2) Great myths of Greece and Rome and their application in English literature together with examination of the major folk epics.

Jacobs
91. History of the English Language. (2) I The etymology, morphology, phonetics, and semantics of English; the relation between linguistic and cultural change.

Pearce or Smith
95. Classical Drama in Translation. (2) Lectures in development of Greek and Roman drama and extensive reading of classical plays.

Mitchell

## ARTS AND SCIENCES

121. [161] Advanced Composition. (3) Expository and narrative prose and the writing of verse. Staff
122. General Magazine Writing. (2) SS A course in the
writing of fiction, articles, and verse for American periodicals.
Rafferty
123. Contemporary Poetry. (3) Prerequisite: English 53 a or 53 b . (Offered alternately with English 181.) Staff
124. Shakespeare. (3) A detailed study of selected plays.
125. Drama of the Restoration and Eighteenth Century. (3) I The best plays from D'Avenant to Sheridan. Prerequisite: 53 a .

Smith
146. Age of Milton. (3) II Non-dramatic poetry and prose from 1600 to 1674 , with special emphasis on the masterpieces of Milton. Prerequisite: 53 a .

Smith
147. Studies in World Drama. (2) (Not offered in 194647).
Smith

## 148. Elizabethan Drama Exclusive of Shakespeare. (3) II Special attention to the plays of Marlowe and Jonson. Prerequisite: 153 a . <br> Pearce or Simons <br> 149. Contemporary Drama. (2) (Not offered in 1946-47.) Staff

151. Chaucer. (3) I A reading of Chaucer's chief literary works with an examination of his philosophy. Prerequisite: 53 a.

Pearce
154. Midole English. (3) A general survey of the types
of thirteenth and fourteenth century literature. Prerequisite: 53 a.

Pearce
157. Elizabethan Non-Dramatic Literature. (3) I Development of humanism, new poetry, literature of courtesy. Prerequisite: 53 a.

Pearce
164. Classic American Writers. (3) Prose masterpieces by Franklin, Emerson, Hawthorne, Thoreau, Whitman, and Clemens.

Smith
165. American Novel. (3) Significant novels and novelists
from 1789 to 1920 . (3rms
166. American Literary Criticism. (3) Major critical attitudes in the nineteenth and twentieth centuries. Prerequisite: 6 hours of courses in literature. (Not offered in 1946-47.)

Arms
177. The Classical Périod in English Literature. (3) I The chief writers in England from the Restoration to the decline of neo-classicism. Prerequisite: 53 a . Smith

## ARTS AND SCIENCES

178. The Romantic Period. (3) The major poets, and the prose of the nineteenth century. Prerequisite: 53 b .

Wynn, Wicker
181. Victorian Poets. (3) The representative poets from 1830 to 1890. Prerequisite: 53 b . Wynn, Jacobs
185. Early English Novel. (3) From the beginnings through Dickens. (Offered alternately with English 186.)

Wicker or Arms
186. Later English Novel. (3) From Thackeray to the present. English 185 is recommended as a prerequisite. (Offered alternately with English 185.) Wicker or Arms
197. Undergraduate Problems. (1-3) Students with approved qualifications may register for special studies in literature.

Staff
198. Review Seminar. (1) Senior English majors are advised to take this course in preparation for the comprehensive examination.

Staff
205. Problems Seminar in the History of Literary Criticism. (1-3) The classical and Renaissance tradition in literary criticism with special consideration of the works of English and American critics. Smith
219. Carlyle and His Circle. (2) (Not offered in 1946-47.) Jacobs
247. Studies in Shakespeare. (2)

Staff
248. Marlowe and Jonson. (2) Seminar in romantic and realistic plot, characterization, and stagings. (Not offered in 1946-47.)

Pearce
249. Old English. (3) Readings in Old English prose and poetry, exclusive of Beowulf. (Offered alternately with English 250.)

Pearce
250. Beowulf. (3) Readings of the OId English epic, Beowulf. (Offered alternately with English 249.) Pearce

251 ab . Problems. (1-3) Studies in literature and philologiy. Graduate Staff

299 ab . Studies in American Literary Culture. (3-3) a: Beginnings to 1840; Amerind lore, early New England, the South, New Spain; b: 1840 to 1915; western local color and mid-western realism; the Eastern tradition of gentility; naturalists, folklore, American expression.

Arms, Pearce, Smith
300. Thesis. (3-6)

Graduate Staff

## GEOGRAPHY

Not a department.
Professors Brand (in charge of minor), Bostwick, Holzer, Northrop, Sorrell.
MAJOR STUDY
Not offered.
MINOR STUDY
Anthropology 53 ab (3-3) or Geology 61 (2) and Economics 63 (3); and 14 or 15 more hours (totaling 20 hours for the minor) from among the following, including at least 2 courses to be selected from Anthropology 119 (3), Anthropology 188 ab (3-3), and Geology 54 (2). Observe prerequisites.
*Anthropology 53 a . Anthropogeography. (3) History of geography, cartography, land forms, meteorology, climatology, soils, plant and animal geography, demography. Brand
*Anthropology 53 b . Anthropogeograṕry. (3) The natural resources of the earth, and their utilization by man. Brand
*Anthropology 55. Human Geography of New Mexico. (3) Brand
Anthropology 95. Maps and Charts. (2) Brand
Anthropology 113. Climatology. (3) Brand
Anthropology 119: Cultures and Races of Europe. (3)
Brand
Anthropology 146. Geography of the Pácific Area. (2)
Brand
Anthropology 188 a. Cultural Geography. (3) Old World excluding Europe.
Anthropology 188 b . Cultural Geography. (3) Latin America. Brand
Biology 171 L . General Ecology. (4) I Prerequisite: 8 hrs . of Biology. 2 lectures, 4 hrs. lab. Lindsey
*Economics 63. Economic Resources. (3) Sorrell
Economics 121 ab . Economics and Trade of Latin America. (2-2)

Jorrin
Geology 51. Introductory Oceanography. (2) Reiche
*Geology 54. Geography of North America. (2)
, $\quad$, Northrop
*Geology 61. Principles of Geography. (2) SS Staff Geology 181 L . Geomorphology. (3) Prerequisites: Geology 2, $6 \mathrm{~L}, 108 \mathrm{~L} .2$ lectures, 3 hrs. lab. Reiche Physics 53 ab . General Meteorology. (3-3) Breiland Physics 116 ab. Dynamic Meteorology. (3-3) Prerequisites Physics 1 b, Mathematics 53 b. Breiland Physics 117 abl. Synoptic Meteorology. (3-3) Weather forecasting and analysis. Prerequisite: approval of staff. 1 lecture, 6 hrs. lab.

Breiland

## ARTS AND SCIENCES

## GEOLOGY

Professors Northrop (Head), Kelley; Associate Professor Reiche. GROUP REQUIREMENTS

Courses in this department count toward Science and Mathematics (Group IV).

## MAJOR STUDY

Geology 1,2, $5 \mathrm{~L}, 6 \mathrm{~L}, 71 \mathrm{abL}, 72 \mathrm{~L}, 106 \mathrm{~L}, 108 \mathrm{~L}, 109 \mathrm{abL}$ or 111 abL , and at least 6 additional upper division hours. Chemistry $1 \mathrm{~L}, 2 \mathrm{~L}$ and Civil Engineering 53 L or its equivalent are required. Note that C.E. 1 L and Mathematics 18 b are prerequisite to C.E. 53 L . Students contemplating a double major may, with the approval of the department, substitute certain other courses in Geology for certain of those listed above. Students contemplating a major in Geology should take Geology. 71 abL in their sophomore year; they should minor in chemistry, biology, physics, mathematics, or engineering.

## MINOR STUDY

12 hours beyond Geology $1,2,5 \mathrm{~L}$, and 6 L .

## MINOR STUDY IN ENGINEERING

20 hours, as approved by the department, from among the following: Engineering $1 \mathrm{~L}, 2 \mathrm{~L}$; Civil Engineering $1 \mathrm{~L}, 53 \mathrm{~L}$, 54 L, 60, $102 \mathrm{~L}, 110 \mathrm{~L}, 157 \mathrm{~F}, 167 \mathrm{~L}, 184$; Mechanical Engineering 53, $105,181 \mathrm{ab}$. Observe prerequisites.
*1. Physical Geology. (3) Materials composing the earth,
and work of agencies, both external and internal, modifying
its surface.
*2. Historical Geology. (3) History of the earth; rise and succession of the various forms of life. Prerequisite: 1.

Northrop
*5 L.' Physical Geology Laboratory. (1) Minerals, rocks, and topographic maps. Credit suspended when credit in Geology 1 is not earned. Co-requisite: 1. 2 hrs. lab. Staff

* 6 L. Historical Geology Laborátory. (1) Fossils and paleogeographic maps; emphasis on historical geology of New Mexico. Credit suspended when credit in Geology 2 is not earned. Co-requisite: 2. 2 hrs lab.

Staff
51. Introductory Oceanography. (2) A brief survey of the science, covering shape of the ocean basins, tides, currents, sea ice, salinity and temperature variations, marine life zones, and bottom deposits.

Reiche
*54. Geography of North America.
Northrop
*61. Principles of Geography. (2) (Normally offered in Summer Session only.). . Staff
71 abL. Mineralogy. (3-3) Crystallography; chemical, physical, and descriptive mineralogy; geologic occurrences, associations, and uses. Prerequisite: Geology 1; prerèquisite or co-requisite: Chemistry $1 \mathrm{~L}, 2 \mathrm{~L}$. Course 71 aL may be taken separately, but 71 aL is prerequisite to 71 bL . 1 lecture, 6 hrs. lab.

Kelley
72 L. Petrology. (3) Classification, occurrence, origin, and hand-specimen recognition of common rocks. Prerequisites: 2 and 71 abL .1 lecture, 6 hrs . lab.

Kelley
101. Nonmetalliferous Deposits. (3) Origin, properties, utilization, and classification of industrial minerals, rocks, and coal. Prerequisites: 6 L and $71 \mathrm{abL} . \quad:: \quad$ Kelley
102. Ore Deposirs. (3) Metalliferous deposits with respect to their origin, distribution, structure, and alteration; mining and utilization problems. Prerequisites: 6 L ; 71 abL , and 72 L .

Kelley
105. New Mexico Geology. (2) Prerequisite: $6 \mathrm{~L} ; 71 \mathrm{abL}$, 107 abL , and 108 L are strongly recommended. Northrop
106 L. Field Geology. (2) Geologic mapping; principles and techniques; preparation of a report. Prerequisites: Geology 6 L and Civil Engineering 53 L ; prerequisite or corequisite: Geology 72 L . 1 full day in field each week. Staff
107 abl. Optical Mineralogy and Petrography. [Petrography and Petrology.] (4-3) . Optical mineralogy; the polarizing microscope; systematic study of rocks with respect to their mineralogy, texture, and genesis. Prerequisites: 6 L and 71 aL . a: 2 lectures, 6 hrs. lab.; b: 1 lecture, 6 hrs. lab.

Kelley
108 L. Structural Geology. (3) Rock structures and their origins; problems. Prerequisite: 6 L . Mechanical drawing or descriptive geometry or both are strongly recommended. 2 lectures, 3 hrs. lab.

Reiche
109 abL. Stratigraphy. (4-4) Yr. Principles, followed by a survey of the stratified rocks of North America, their correlation, stratigraphic relations, and guide or index fossils. Prerequisite: 6 L . Some biology is strongly recommended. Credit suspended for 109 aL until 109 bL is completed. 2 lectures, 6 hrs. lab.

Northrop
111 abl. Paleontology. (4-4) Yr. Fossil plants, invertebrates, and vertebrates, with emphasis on the invertebrates; structure, classification, life habits, evolution, and geologic history. Prerequisite: 6 L . Some biology is strongly recom-

## ARTS AND SCIENCES

mended. Credit suspended for 111 aL until 111 bL is completed. 2 lectures, 6 hrs. lab. Northrop
115 L. Petroleum Geology. (3) An inductive approach to the principles of oil origin and accumulation, based on structural and stratigraphic study of oil-producing regions and districts. Prerequisites: $6 \mathrm{~L}, 72 \mathrm{~L}, 108 \mathrm{~L}$, and 116 L .2 lectures, 3 hrs . lab.

Reiche
116 L . Sedimentology. (3) The sedimentary cycle and its products; rock-weathering and soils; transport; depositional environments; sedimentary petrology. Prerequisites: 6 L , 72 L , and 108 L .2 lectures, 3 hrs lab. Reiche
131. Pleistocene Geology. (2) Prerequisite: 6L. (Offered only occasionally.) Staff
151 ab. Problems. (2-2) Staff
161. Ground Water. (2) Occurrence and development of ground water with special emphasis on Southwestern conditions. Prerequisites: $6 \mathrm{~L}, 72 \mathrm{~L}, 108 \mathrm{~L}$, and 116 L .
181 L. Geomorphologý. (3) Origin, development, and classification of land forms, with detailed consideration of gradational processes. Prerequisite: 108 L . 2 lectures, 3 hrs . lab.

Reiche
182 L. Geomorphology of the United States. (3) Detailed study of the physiographic provinces of the United States, emphasis on western United States. Prerequisite: 181 L .2 lectures, 3 hrs. lab. . Northrop
251 ab. Problems. (2-3 each semester) Graduate Staff
300. Thesis. (4-6)

Graduate Staff

## GOVERNMENT AND CITIZENSHIP

Professors Donnelly (Head), Kleven; Assistant Professor Beckett. GROUP REQUIREMENTS

Courses in this department count toward Social Science (Group III).
MAjOR STUDY
In addition to $1 \mathrm{ab}, 27$ hours including $51 \mathrm{ab}, 121,141$ or $142,175,197$ a or 197 b .
minor study
In addition to $1 \mathrm{ab}, 15$ semester hours including $51 \mathrm{ab}, 121$, 141 or 142, 175.

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CURRICULUM PREPARATORY TO LAW
    See p. 63.
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## ARTS AND SCIENCES

## CURRICULUM PREPARATORY TO PUBLIC ADMINISTRATION See p. 64.

*I ab. Introduction to Social Science. (3-3) Yr. (Same as Economics I ab and Sociology lab.) A study of current social, economic, and political problems, with particular reference to the United States. Credit suspended until both semesters are completed. - Donnelly, Kleven, Beckett
:51 ab. American Government and Politics. (3-3) a: National government; b: state, county, and city government. Donnelly, Beckett
73 ab . Introduction to Latin America. (3-3) (Same as Anthropology 73 ab , Economics 73 ab , and Sociology 73 ab .) Brand, Jorrín
103. Problems of Democracy. (3) Government problems of special contemporary importance. . Staff
105. [75] Public Opinion and Propaganda. (3) I Public opinion as it affects party alignments and governmental programs. The methods used by special interests in influencing public opinion. Prerequisite: 1 ab .

Donnelly
106. [76] Political Parties. (3) II The American party system, national, state, and local. Prerequisite: 1 ab.

Donnelly
119. Current Problems of Foreign Trade. (3) II Raw materials; markets; foreign exchange; private, governmental, and regional control and regulation with particular emphasis on the post-war reconstruction of world trade. Kleven
121. Public Administration. (3) I Introduction to the general problems of public administration in the modern state; evolution of administrative organization; tendency toward centralization and integration; controls which are exercised over administration by the courts and legislatures, personnel and fiscal management, reorganization of administration. Prerequisite: 5 l ab.

Donnelly
131. Administrative Law. (3) The legal and constitutional problems involved in the regulation of administrative offices and agencies. Prerequisites: $51 \mathrm{ab}, 121$. Kleven, Beckett
141. International Relations. (3) I The origin and nature of the problems involved in international relations. Recommended: 51 ab . Donnelly, Kleven
142. Contemporary World Politics. (3) An analysis of the foreign policies of the great powers and of contemporary problems growing out of these foreign policies.

Donnelly, Kleven

## ARTS AND SCIENCES

$$
\begin{aligned}
& \text { 143. International Law. (3) II The origin, nature, and } \\
& \text { application of the rules of international law. Prerequisites: } \\
& \text { lab and } 51 \text { ab. } \\
& \text { Kleven } \\
& \text { 148. Foundations of NATIONAL Power. (3) An analysis of } \\
& \text { the role of national power in international politics; inter- } \\
& \text { national organization, diplomacy, and the evolution of inter- } \\
& \text { national law. The course is primarily for members of the } \\
& \text { NROTC. Students who take Government } 148 \text { cannot enroll } \\
& \text { in 141, but may substitute } 148 \text { for } 141 \text {. Recommended: } 51 \text { ab. } \\
& \text { Kleven } \\
& \text { 151. AmERICAN DIPLOMACY: } \\
& \text { (3) (Same as History 15l.) } \\
& \text { 155. THE Governments of Latin America. (3) A consider- } \\
& \text { ation of the governments of a number of Latin-American } \\
& \text { states including a study of their domestic problems and dip- } \\
& \text { lomatic policies. Prerequisite: } 51 \text { ab, or } 1 \text { ab and } 73 \text { ab. }
\end{aligned}
$$

167. Political Theory. (3) Political thought from the Greek period through modern times. Prerequisite: 51 ab .

Staff
169. Comparative Economic and Political Systems. (3) A survey and comparison of the present economic and political organization of the leading nations. Kleven, Beckett
170. Organization and Administration of Social Welfare. (3) I Functions and services of governmental and voluntary organizations. Prerequisite: lower division requirements for social work training program. (See p. 64.) Ellis
175. Constitutional Law. (3) I The Constitution of the United States as it has been interpreted by the courts. Prerequisite: 51 ab .

Kleven
197 ab. Seminar. (2-2) Open to advanced students with approved qualifications.

Staf
201 ab . Administrative Problems. (2-2)
Donnelly
205 ab. Political Problems. (1-3 each semester) Kleven
251 ab. Problems (1-3) Kleven
300. Thesis. (4-6)

Donnelly, Kleven

## HISTORY

Professors Hammond (Head), Dargan; Associate Professors Reeve, Sacks, Woodward.

## GROUP REQUIREMENTS

Courses in this department count toward Sòcial Science (Group III).

## MAJOR STUDY

30 hours, including 12 hours from courses 1 ab and 11 ab or 51 ab , and at least 18 hours numbered above 100 . All students who intend to take upper division courses in history are urged to acquire' a reading knowledge of at least one foreign language, preferably Spanish, before reaching the junior year.

## MINOR STUDY

18 hours, including 1 ab or 11 ab , and not less than 6 hours numbered above 100 .
*lab. Western Civilization. (3-3) European developments from the decline of the Roman Empire to the present. Sacks
*Il ab. History of the Americas. (3-3) Woodward
*31. History of New Mexico. ..... (2)
Woodward
Reeve
71 ab. History of England. ..... (3-3)
Reeve
81 ab. History and Political Institutions of Greecé and Rome. (3-3) (Not offered in 1946-47.)
102. Introduction to Historical Research fered in 1946-47.)
3) (Not of Woodward
107. Modern and Contemporary Far East. (3) II The relation of western civilization with the Orient since 1850. Dargan
122. The Middle Ages. (3) (Not offered in 1946-47.)
Woodward
123. The Renaissance and the Reformation. ..... (3) (Not offered in 1946-47.) - . Woodward
133. England Since the Industrial Revolution. ..... (3) (Not offered in 1946-47.) ..... Sacks
135. The British Empire. [Modern Britain] ..... (3) I Sacks
141 ab. Modern Europe, 1648-1914. [Modern Europe, 1500 - 1914] (3-3) Emphasis on political, social, economic, and intellectual developments on the continent. Sacks
146. Dictatorship and Democracy in Europe Since ..... 1914. (3) II ..... Sacks
151. American Diplomacy (3) I. Dargan
161 ab. History of Latin America. ..... (3-3)Hammond, Woodward

## ARTS AND SCIENCES

163. The A. B. C. Powers in Recent Times. (3) IIWoodward
164. History of Spain. (3) (Not offered in 1946-47.)
165. Mexico and the Caribbean. ..... (3) I
Woodward
166. The American Colonies. (3) I Dargan
173 ab . American Biography. (2-2) The great personalities who have influenced American history. Dargan
167. The South in American History, 1763-1865. ..... (3) (Not offered in•1946-47.) Dargan
168. Recent History of the United States. (3) II (Notoffered in 1946-47.)Reeve
179 ab. Constitutional History of the United States. (2-2)Reeve
181 ab. History of the American Frontier. (3-3) Dargan
191 ab . History of the Southwest. (3-3) Hammond
201 ab . Source Material in the Spanish Colonial Period.(2-2) Training in the research use of manuscript sources.Reading knowledge of Spanish required. Hammond251 ab . Problems. [Seminary. ( $1-3$ each semester)Graduate Staff
261 ab. Research in Southwestern History. ..... (2)Dargan, Hammond271 ab. Seminar in American History. (2-2) Graduate Staff300. Thesis. (4-6)Graduate Staff

## LIBRARY SCIENCE

Professor Shelton (Head).

## MAJOR STUDY

Not offered.

## MINOR STUDY

21,22 or 24,23 , and 25.
21. Referenge and Bibliography. (3) Training in the use of standard works of reference.

Shelton
22. Public Library Administration. (3) II The place of the library in the community; its organization, financing and administration.

Shelton
23. Classification and Cataloging. (3) I Principles of classification and the techniques of cataloging for libraries.

Shelton
24. School Library Administration. (3) I A study of the organization of the school library.

Shelton

## 25. Book Selection for Young People. (3) II A survey course covering tools and principles of selection of books for young people. <br> Shelton

## MATHEMATICS

Professor LaPaz (Head); Associate Professor Larsen; Assistant Professor Rosenthal; Instructors Hove, Mitchell; Teaching Assistant Coy.

## GROUP REQUIREMENTS

Courses in this department count toward Science and Mathematics (Group IV).

## MAJOR STUDY

College of Arts and Sciences and College of Education: 24 hours in courses numbered above 50. (Majors in Education are required to take Education 155 e . A list of recommended teachers is selected each year by vote of the mathematics faculty from those who complete the major.) Among the courses recommended for students specializing in mathematics are Mechanical Engineering 105 or Physics 142 ab; Business Administration 53 ab; Engineering 1L, 2 L and 4; Civil Engineering 1-L, 53 L, and 54 L ; Philosophy 56; and Physics 1 abl, 101, and 102.

## MINOR STUDY

11 hours in courses numbered above 52.

## NOTE TO BEGINNING STUDENTS

Students electing Mathematics 18 a will take a placement test in mathematics. Those who do not demonstrate adequate preparation will be transferred to Mathematics 15.

1. College Arithmetic. (2) The logical and historical background of arithmetic desirable in the training of teachers. Includes drill on fundamental operations. (Not offered in 1946-47.)

Larsen
11. Solid Mensuration. (3) Designed to satisfy the Navy requirement in solid geometry. Recommended for all students in the College of Engineering who do not present solid geometry for entrance. Includes some drill work on the slide rule. Prerequisites: high school algebra, 1 unit; plane geometry, l unit.

Larsen
14. An Introduction to Mathematics. (3) Stress is placed on fundamental mathematical concepts rather than on manipulative drill. Recommended for students who do not expect to do extensive work in mathematics. Prerequisite: high school algebra, I unit.

Hove

## ARTS AND SCIENCES

15. College Algebra. (3) Prerequisites: high school algebra, 1 unit; plane geometry, 1 unit. Staff
16. Plane Trigonometry. (3) I Prerequisite: 15 or concurrent registration.

Staff
18 ab. Freshman Mathematics. (5-5) Basic course for curricula in mathematics, in engineering, and in other programs in science. Students taking this course will not be given credit in Mathematics 15,16 , or 22. Prerequisites: high school algebra, $11 / 2$ units; plane geometry, 1 unit; solid geometry recommended.

Staff
22. Analytic Geometry. (3) II Prerequisites: 15 and 16; Mathematics 16 may be taken concurrently. Staff
42. Introduction to Statistical Methods. (3) I A basic course especially for students specializing in the social sciences. Some laboratory work required. Not recommended for mathematics majors. Prerequisite: high school algebra, 1 unit.

Larsen
52. Descriptive Astronomy and Meteoritics. [Introduction to Astronomy.] (3) II An introductory course not requireing extensive knowledge of science or mathematics. Prerequisites: high school algebra, 1 unit; plane geometry, 1 unit.

LaPaz
53 ab . An Introduction to the Calculus. (4-4) The elements of the calculus correlated with courses in physics, chemistry, mechanics, and engineering. Prerequisites: 18 ab , or 15,16 , and 22.

Staff
61 ab . Spherical Trigonometry and Practical Astronomy. (3-3) Especially concerned with the mathematical foundation of navigation and related subjects. Prerequisite: 18 ab or equivalent. (Not offered in 1946-47.) Staff
87. Mathematics of Finance. (3) I Accepted for major credit by the department of Economics and Business Administration. Prerequisite: 15 or equivalent. . Larsen

The courses which follow are open only to students who have completed Mathematics 53 b , or who have the instructor's permission.
107. Theory of Numbers. (3) (Not offered in 1946-47.)
LaPaz
115. Theory of Equations. (3) (Not offered in 1946-47.)
Barnhart

131 ab . Mathematics of Statistics. (3-3) Some laboratory work required.

## ARTS AND SCIENCES

141. Differential Equations. (3) II Ordinary and partialdifferential equations.
Rosenthal
142. Applied Mathematical Methods. (3) Nomography, numerical solution of equations, interpolation, method of least squares, curve fitting, etc. (Not offered in 1946-47.)
Larsen
143. Véctor Analysis. (3). (Not offered in 1946-47.) Staff
144. Advanced Calculus. (3) (Not offered in 1946-47.) ..... Staff
145. History of Mathematics. (3) (Not offered in 1946- 47.) ..... Staff
173 ab. Advanced Analytic Geometry. (3-3) Barnhart
146. Foundations of Mathematics. (3) A critical study of the construction of a mathematical system. (Not offered in 1946-47.) ..... Staff
147. Theory of Fungtions of a Real Variable. ..... (3) I ..... LaPaz
148. Theory of Functions of a Complex Variable
Rosenthal

The seminars which follow arë open only to qualified students and permission to register requires the consent of the department head.
194 abcd. Pro-Seminar. (2 hrs. each semester) Advancedreading and beginning research. - Staff
204 abcd. Seminar (2 hrs. each semester.) Advanced read- ing and research. Graduate Staff
300. Thesis. (3-3) Graduate Staff

## MODERN LANGUAGES AND LITERATURE

Professors Kercheville (Head), Campa, Ortega; Associate Professors Alexander, DeJongh, Duncan, Jorrín, Lopes; Assistant Professor Koch; Instructors Carniglia, Christoffers, Cobos, Luckey, Pooler, Wallis.

GROUP REQUIREMENTS
Courses in this department count toward Foreign Language (Group II) with the exception of Spanish 145 ab and courses in the Folklore Division.

## PLACEMENT EXAMINATIONS

Any new student presenting one or more units in Spanish, French, or German and desiring to continue that language in

## ARTS AND SCIENCES

courses below 100 must take the placement examination. On the basis of the result, students will be assigned to the proper courses.

## FRENCH

## MAJOR STUDY

The major in French consists of 24 hours in courses numbered above 50. All French majors are urged to take a minor in Spanish or another modern language, or Latin.

## MINOR STUDY

12 hours in courses numbered above 50.
*lab. Elementary French. (3-3) Yr. Credit for 1 a suspended until 1 b (or more advanced course) is completed. 1 a and 1 b offered every semester. DeJongh and Staff
*5l ab. Intermediate French. (3-3) Grammar, reading, and translation. Prerequisite: 1 ab or the equivalent. 51 a and 51 b offered every semester. DeJongh and Staff

General prerequisites for the following courses: French 51 ab or the equivalent.
101 ab . Advanced Composition and Conversation. (2-2) Composition based on a thorough review of French grammar and conversation based on modern French plays.

DeJongh
105 ab . French Literature of the Nineteenth Century. (2-2) Representative works in poetry, drama, and fiction. (Offered in 1947-48.)

DeJongh
121 ab . The Comedy of Moliere. (2-2) (Offered in 194748.) DeJongh

151 ab. Survey of French Literature from the Eleventh Century to the Revolution. (3-3) DeJongh
251 ab. Problems in French Literature. (2-2) DeJongh

## GERMAN

MAJOR STUDY
Not offered.
‘MINOR STUDY
12 hours in courses numbered above 50.
*1 ab. Elementary German. (3-3) Yr. Credit for 1 a suspended until 1 b (or more advanced course) is completed. $l a$ and $l b$ offered every semester. Koch and Staff
. 51 lab . Intermediate German. (3-3) Prerequisite: 1 ab or the equivalent. 51 a and 51 b offered every semester. Koch

## 61. Post-war Literature. (3) (Offered in 1947-48.) Koch

62. Scientific German. (3) Readings in psychology, chemistry, mathematics, biology, and anthropology. Koch
151 ab . Survey of German Literature. (3-3) (Offered in 1947-48.)

Koch

## ITALIAN

No major or minor study offered.
75 ab . Elementary Italian. (3-3) Although this is an elementary course, the work is done under heavier pressure and more is achieved in reading and conversation than in the elementary language courses numbered 1 ab . It is open only to students who possess a good knowledge of the grammar of another Romance language and to graduate students, or to those who otherwise satisfy the instructor of their fitness to do the work. (Offered in 1947-48.) , DeJongh

## PORTUGUESE

No major study offered.
Minor study. 12 hours in courses numbered above 50.

* 1 ab. Elementary Portuguese. (3-3) Yr. Credit for 1 a suspended until l b (or more advanced course) is completed. 1 a and 1 b offered every semester.

Lopes and Staff
*51 ab. Intermediate Portuguese. (3-3) Prerequisite: 1 ab or equivalent. Lopes and Staff
151. Survey of Portuguese Literature. (3) Lopes
157. Survey of Brazilian Literature. (3) (Offered in 1947-48.)

Lopes

## SPANISH

## MAJOR STUDY

24 hours in courses numbered above 50 , including Spanish $93 \mathrm{ab}, 151 \mathrm{ab}$, and 153 ; and two years of college work in another modern lańguage or Latin.

## MINOR STUDY

15 hours in courses numbered above 50.
*lab. Elementary Spanish. (4-4) Yr. Credit suspended for 1 a until l b (or more advanced course) is completed. la and 1 b offered every semester.

Staff
*41 ab. Intermediate Spanish. (3-3) 41 a and 41 b offered every semester.

Staff
*43 ab. Elementary Spanish Conversation. (1-1) To be taken concurrently with Spanish 41 a and 41 b . Enrollment limited to 15 students of A or B standing. Staff

## ARTS AND SCIENCES

*55 ab. Primer Curso Para Estudiantes de Habla Espanola. (3-3)

Ortega or Jorrín and Staff
*91 ab. Introduction to Spanish Literature. (3-3) Prerequisite: 41 ab or the equivalent. Kercheville
*93 ab. Intermediate Composition and Conversation. (2-2) Required of all majors. Prerequisite: two years of college Spanish or equivalent. Campa
*95. Spanish Business Letter-Writing. (2) I Prerequisite: two years of college Spanish or equivalent. Campa
*96. Commercial and Industrial Language Practice in Hispanic Countries. (2) II Prerequisite: two years of college Spanish or equivalent.

Campa
Spanish 91 ab or the equivalent is a prerequisite for all literature courses listed below.
101 ab. Curso Avanzado Para Estudiantes de Habla Espanola. (3-3) Prerequisite: 55 ab . (Offered in 1947-48.) Ortega, Campa
105 ab . Contemporary Spanish Literature. (2-2) (Offered in 1947-48.) Staff
107 ab. Spanish Novel. (2-2) Kercheville
121 ab. Modern Spanish Drama. (2-2) Staff
131 ab . Advanced Composition and Conversation. (2-2) Prerequisite: three years of college Spanish or equivalent.

Ortega
145 ab. Ibero-American Civilization. (2-2) Conducted in
Spanish. (Offered in 1947-48.)
151 ab. Survey of Spanish Literature. (3-3) Required of Spanish majors. (Offered in 1947-48.) . . Kercheville
153. Phonetics. (2) Required of all majors. Prerequisite: three years of college Spanish or equivalent. (Offered in 1947:48.) $\cdots$

Duncan
157 ab . Survey of Spanish-American Literature. (2-2) Either this course or 163 ab is required of candidates for a graduate degree.

Jorrín
163 ab . Contemporary Spanish-American Literature. (2-2) Open only to graduate students and especially qualified undergraduates. Either this course or 157 ab is required of candidates for a graduate degree. (Offered in 1947-48.)

> Jorrín

165 ab . Gervantes and the Spanish Golden Age. (3-3) Life and works of Cervantes; sources; historical developments in sixteenth and seventeenth century Spain relating to litera-
ture: influence of Cervantes in other literatures. (Offered in 1947-48.) Ortega or Kercheville
171. Lyric Poetry. (3) Required of candidates for a graduate degree.

Campa
180 ab . Realism in Spanish Literature. (2-2) (Offered in 1947-48.)

Ortega
201 ab : History of the Spanish Language. (2-2) Evolution of Spanish from Latin; reading from medieval texts. Required of all candidates for a graduate degree. (Offered in 1946 summer session).

Duncan
205. Research Methods. (2) Required of candidates for a graduate degree. (Offered in 1946 summer session.) Duncan
251 ab. Problems in Spanish Language or Literature: (2-2)
Graduate Staff
280 ab. Seminar: Realism in Spanish Literature. (2-2) (Offered in 1947-48.)

Ortega
300. Thesis. (4-6)

Graduate Staff

## FOLKLORE

115. Southwestern Folklore. (2) Special stress on New Mexico. (Offered in 1947-48.) Campa
116. Folktales. (2) I In Europe and Spanish America.

Campa
162. Folk Ballads and Songs. (2) II Spanish balladry in the New World, particularly in New Mexico. $\quad$ Campa

## PHILOSOPHY

Professor Knode (Head); Associate Professor Aléxander.
GROUP REQUIREMENTS
Courses in this department count toward Social Science (Group III).

MAJOR STUDY
Philosophy 40,56, 141 ab , and 19 additional hours of which at least 4 must be numbered above 100 .

## MINOR STUDY

Philosophy 40,56, 141 ab , and 4 additional hours.
Note: Students planning to complete a major or a minor in philosophy are urged to take many broad fundamental courses, and should consult members of the department as early as possible concerning their selection.

## ARTS AND SCIENCES

*40. Introduction to Philosophy. (2) Elementary terminology; the study of major philosophies and fields of philosophy. Knode, Alexander
*53. Ethics. (3) Social philosophies and the problems of human values.

Alexander
*55. Thought and Expression. (3) The elements of logical thought as expressed in language. Alexander
56. Logic. (3) Rules and fallacies of deductive and inductive reasoning. Prerequisite: 55 or equivalent. Alexander,
64. Philosophy and Religion. (2) Their relationships as exemplified in Christianity and Western philosophy. Knode
72. American Thought. [Conflicts in American Thought]. (?) Philosophical, religious, and educational ideologies in America, with special reference to conflicts.
102. Aesthetics. (3) An introduction to the philosophy of art.

Alexander
123. Hispanic Thought. (2) Major philosophical influences in Spanish culture.

Alexander
141 ab . Survey of Philosophy. (3-3) Historical study of the development of philosophy in Occidental civilization.

Alexander
176. Contemporary Philosophy. (3) Present-day philosophic thought with special reference to the works of Whitehead and Dewey. Prerequisite: 40 or equivalent. Knode
191. [191 ab] Philosofhy of Language. [General Linguistics and Theory of Language.] (2) Introduction to the study of linguistic morphology and to theories of semantics and symbolism.

Alexander
195. [74, 195 ab$]$ Philosophy of Science. [Philosophy of Science, Epistemology, and Advanced Logic.] (2) The problem of epistemology and an analysis of fundamental concepts of science. Prerequisite: 40 or equivalent. (Offered alternately with Philosophy 191.) Alexander
241 ab. Periods of Special Philosophical Significance. (2:2) Plato and Aristotle; Descartes, Spinoza, and Leibniz; Locke, Berkeley, and Hume; Kant, Fichte, and Hegel; or others to be chosen by the group. Prerequisite: 141 ab . Alexander
251 ab. Problems.
300. Thesis. (4-6)

Graduate Staff
Graduate Staff

## ARTS AND SCIENCES

## PHYSICS

Professor Holzer; Associate Professor Regener (Acting Head); Instructors Breiland, Drescher.

## GROUP REQUIREMENTS

Courses in this department count toward Science and Mathematics (Group IV.)

## MAJOR STUDY

18 hours in courses numbered above 100 .

## MINOR STUDY

8 hours in courses numbered above 100.

## MINOR STUDY IN METEOROLOGY <br> Physics 101 and 116 ab or 117 abL .

1 abl. General Physics. (4-4) Prerequisites: algebra and
plane geometry. 3 lectures, 3 hrs . lab.

53 ab . General Meteorology. (3-3) An introduction to the study of the fundamental physical processes underlying weather phenomena and to modern methods of weather forecasting. For students who need a background for more advanced meteorological study of non-professional students who wish to study only the fundamentals of meteorology. Prerequisite: 1 b or equivalent; co-requisite: Mathematics 53 a, or approval of staff.

Breiland
101. Heat and Radiation. (3) II The theory of heat and
temperature radiation with an introduction to thermody-
namics. Prerequisites: I $b$ and Mathematics 53 b . Staff
102. Optics. (3) I Geometrical and physical. Prerequisite: 1 b ;
102 L. Optics Laboratory. (1) I Co-requisite: 102. 3 hrs . lab.

Staff
111 ab. Electricity and Magnetism. (2 or 3-3) a: General theory of electrostatics, magnetostatics, direct current phenomena, and electro-magnetic induction. Prerequisites: 1 b and Mathematics 53 b . 'b: Theory of alternating current circuits, and electro-magnetic transients. Prerequisite: 111.a. Staff

## 111 aL. Electricity and Magnetism Laboratory. (1 or 2) Co-requisite: 111 a .3 hrs . lab for each hr. of credit. Staff

113. Climatology. (3) (Same as Anthropology 113.)

116 ab . Dynamic Meteorology. (3-3) Prerequisites: I b and Mathematics 53 b .

Breiland

## ARTS AND SCIENCES

117 abL. Synoptic Meteorology. (3-3) Weather forecast-ing and analysis. Prerequisite: approval of staff. I lecture,6 hrs. Iab.Breiland142 ab. [142]. Analytical Mechanics. (3-3) A mathe-matical presentation of kinematics, dynamics and statics of aparticle and of rigid bodies; analysis of special problems inconstrained motion, wave motion, systems of particles, andhydrodynamics.Staff
151 ab. Atmospheric Physics. (9-3) (Not offered in 1946- 47.)Staff
191. Contemporary Physics. (3) A survey of selected sub-jects in the field of kinetic theory, thermodynamics, electro-magnetic theory and quantum theory. Prerequisite:approval of staff.
Staff
192. Contemporary Physics. (3) A survey of selected subjects in the fields of atomic, and nuclear physics. Prerequisite: approval of staff.
Staff
25i. Problems. (2-4)
Graduate Staff
300. Thesis. (4-6)
Graduate Staff

## PSYCHOLOGY

Professor Peterson (Acting Head); Associate Professor DuBois; Graduate Fellow Coy.

## GROUP REQUIREMENTS

Courses in this department count toward Science and Mathematics (Group IV).
MAJOR STUDY
24 hours in courses numbered above 51.
MINOR STUDY
12 hours in courses numbered above 51.

* 1 abL. General Psychology. (3-3) Yr. Credit suspended for 1 aL until 1 bL is completed. Course 1 aL is prerequisite to 1 bL . 2 lectures, 2 hrs. lab.

Peterson
*51. [51 L] General Psychology. (3) An introductory course. Not open to those who have credit for Psychology 1 abL .

Peterson
*54. Educational Psychology. (3) II *An introductory course. Limited to sophomores. Prerequisite: labL or 51. DuBois.
*56. Applied Psychology. (3) I Applications of psychology to business and professions. Prerequisite: 1 abL or 51.

DuBois.
101. Soclal Psychology. (3) II The behavior of individuals as influenced by other human beings. . Prerequisite: 1 abL or 51 .
DuBois
103. Abnormal Psychology. (3) I Prerequisite: 1 abL or
51.
181. Educational Tests and Statistics. (3) I Prerequisite 1 abL or 51.

DuBois
183. Educational Psychology. (3) I Advanced course. Prerequisite: l abL or 51 .

DuBois
185. Mental Measurements. (3) I Prerequisite: labL or 51.

DuBois
187. Child Psychology. (3) II The principles of human behavior in infancy, childhood, and adolescence. Prerequisite: 1 abL or 51 .

DuBois
.190 L. Clinical Psychology. (3) II Clinical practice in the administration of psychological tests; round table discussion of problem cases. Prerequisites: 1 abL or 51, and 185. Seniors or graduate students may take 185 concurrently with 190 L .1 lecture, 4 hrs. lab. DuBois
193. Animal Psychology. (3) I A comparative study of heredity, maturation, learning, and the higher mental processes as revealed in various animals. Prerequisite: 1 abL or 51.

Peterson
193 L. Animal Psychology Laboratory. (2) I 5 hirs. lab.
196. Physiological Psychology. (3) II Correlation of behavior and structure, with emphasis on the nervous system. Prerequisite: 1 abl or 51.

Peterson
196 L. Physiological Psychology Laboratory. (2) II 5 hrs. lab.

Peterson
198. History of Psychology. (3) II Prerequisite: 1 abL or 51.
251. Problems. (2-3)
300. Thesis. (2-4)

Graduate Staff
Graduate Staff

## SOCIOLOGY

Professor Walter (Head); Associate Professor Miller; Assistant Professor Ellis.

## GROUP REQUIREMENTS

Courses in this department count -toward Social Science (Group III).

## ARTS AND SCIENCES

## MAJOR STUDY

24 hours in courses numbered above 50 , including 18 numbered above 100 .

MINOR STUDY
12 hours in courses numbered above 100 .
*1 ab. Introduction to Social Science. (3-3) Yr. (Same as Economics 1 ab and Government 1 ab .) This course is prerequisite to most advanced courses in Sociology. Credit suspended until both semesters are completed. Staff
51. The Family. (3) I Waltes
65. Social Anthropology. (2) I Study of primitive societies.

Miller
66. Culture Growth. ${ }^{(3)}$ II Origin and diffusion of cul-
tures. Prerequisite: 65 Miller
71. Social Control. (3) Agencies and processes by which groups regulate their members. Prerequisite: 1 ab or equivalent.

Miller
72. Social Pathology. (3) Prerequisite: 1 ab or equivalent. $\begin{array}{r}\text { Miller }\end{array}$

73 ab . Introduction to Latin America. (3-3) (Same as Anthropology 73 ab , Economics 73 ab , and Government 73 ab.)

Brand, Jorrín
105. Rural Sociology. (3) I Special emphasis on rural problems of New Mexico. Prerequisite: 1 ab or equivalent. Walter
106. Urban Sociology. (3) II Prerequisite: 1 ab or equivalent.

Walter
107 ab. Man and Society in Latin Ámerica. (2-2) (Offered in $1947-48$ and alternate years.) Prerequisite: 73 ab or equivalent. Jorrín
109. Criminology. (3) Í Crime as a social phenomenon. Prerequisite: 71 or equivalent.

Miller
110. Juvenile Delinquency. (2)

Walter
111 ab. Social Problems of Latin America. (2-2) Prerequisite: 73 ab or equivalent. (Offered in 1946-47 and alternate years.) Jorrín
115. Community Organization. (2) II Prerequisite: 1 ab or equivalent. Walter
140. Economic Security. (3) I (Same as Economics 140.) Walter
151 ab. Introduction to Social Service. (3) Principles andprocesses involved in solving individual problems. Prere-quisites: lower division requirements for social work trainingprogram. (See p. 64.)Ellis
154. Race and Culture Relations. ..... (3)
Walter
163. Early Social Thought (3) Prerequisites: I a ..... ab or equivalent. ..... Miller
164. Contemporary Social Thought. (3) I Prerequisite: 163 or consent of the instructor. ..... Miller
195. Population Problems. (3) II Prerequisite: 1 ab or equivalent.
197. Field Observation and Participation. (3) Social agencyexperience. Prerequisite: lower division requirements forsocial work training program and Sociology 151 a.
201 ab. Research Methods. (3-3) Graduate Staff
251 ab. Problems. (3-3)300. Thesis. (4-6)
Graduate Staff

## COLLEGE OF ENGINEERING

The duties of the engineer are so varied and far-reaching that no single definition adequately portrays his services to the human race. He should, however, be able to apply the laws of nature to the benefit of mankind, to manage and to control technical works and industries, and to apply his scientific training and experience to the political and social problems of his day. Such a variety of work requires men of good character who are well grounded in the fundamentals of the profession of engineering:

It is the purpose of the College of Engineering to train the student in the elements of his branch of engineering, and to develop honesty, loyalty, industry, and thoroughness, so that he may enter the profession of his choice with profit to mankind as well as to himself.

## ADMISSION

A detailed statement of entrance requirements will be found under "Admission."

## SCHOLASTIC REGULATIONS

Students in the College of Engineering will be governed by the scholastic regulations given under "General Academic Regulations."

## courses of study

The College of Engineering offers four-year programs of study leading respectively to the degrees of Bachelor of Science in Civil Engineering, Bachelor of Science in Electrical Engineering, Bachelor of Science in Mechanical Engineering, Bachelor of Science in Mechanical Engincêring-Aeronautical Option, Bachelor of Science in Mechanical Engineering-Petroleum Option, Bachelor of Science in Chemical Engineering, Bachelor of Science in Naval Science-Engineering, and Bachelor of Science in Industrial Arts. It is also possible to arrange a program of study so that the Bachelor of Arts degree can be obtained in one additional year.

Aeronautical Engineering. The work in aeronautical engineering is offered as an option in the Department of Mechanical Engineering; however, a complete four-year program of study is offered in this field.

Naval Science. A student enrolled in the Navy R.O.T.C. may earn the degree of Bachelor of Science in Naval Science in

## COLLEGE OF ENGINEERING

Engineering by completing, in addition to the Naval Science courses, the first six semesters of the curriculum in the field of engineering in which he is interested. The quality of work required for the Naval Science degree will be the same as that required for other engineering degrees.

## LABORATORIES AND EQUIPMENT

Drawing and Design Laboratories. Three well-equipped rooms in Hadley Hall are provided for all of the drafting room work offered.

Civil Engineering Laboratories. The department provides laboratories for road material, building material, and hydraulics, and surveying equipment to be used in all types of elementary and advanced field courses.

The materials testing laboratory is equipped for making tests of cement; concrete, stone, brick, tile, timber, steel, soils, and other material used in engineering practice. Tests are conducted by students to illustrate the properties of these materials. The laboratory is also used for research problems and, to a limited extent, for commercial testing. All equipment and all tests conform to accepted standards of engineering practice.

The hydraulics laboratory is equipped to study the flow of water in open channels, through pipes and orifices, and over weirs, illustrating the principles of hydraulics as used in the theoretical courses and in courses in water supply, sewerage, and drainage.

The highway testing laboratory contains a complete set of equipment for making standard tests on road oils and asphalts, and also machines for testing of gravels used in highway construction.

Field work and office computation in surveying are conducted with modern equipment of the highest grade.

The materials laboratories of the New Mexico State Highway Department have been built in space adjoining the Civil Engineering laboratories and contain modern equipment adequate for making all types of tests of road building materials. These laboratories are open for inspection by engineering students and for research work by members of the faculty.

Electrical Engineering Laboratories. The Electrical Engineering department has four laboratories and a design room all of which are well equipped to illustrate the practical applications of the theory studied in the class room.

Power Laboratory. The power laboratory is equipped with all the common types of both D.C. and A.C. motors and

## COLLEGE OF ENGINEERING

generators and the necessary manual and automatic starters and controllers for their operation, and special machines such as a rotáry converter, adjustable speed A.C. motor, sine-wave and harmonic generators, a Ward-Leonard M-G set, a variable phase, variable frequency alternator, and a mercury arc rectifier. Operating and loading devices are available so that all the standard and some special tests on both A.C. and D.C. motors and generators can be made.

The transformer section includes a number of standard transformers of various capacities and voltage ratings, and a special testing transformer, autotransformers, voltage regulators, etc.

The power for all laboratories is supplied at 2300 volts and then stepped down to 115 and 230 volts. Special transformers supply 440 volt service to the distribution panel. Direct current is supplied by two motor generator sets.

Measurements Laboratory. The measurements laboratory is equipped to make accurate measurements in D.C. and A.C. power, and radio frequencies up to 5000 megacycles. Equipment includes galvanometers, all types of indicating instruments, Wheatstone bridge, radio frequency bridge, standard signal generators, wavemeters, square wave generator, oscilloscopes, string oscillographs, insulation tester, rotating standard, watthour meters, instrument transformers, relays, graphic recording wattmeter, frequency indicators, power-factor indicator, and many other measuring devices.

Communications Laboratory. The radio-communications laboratory is particularly well equipped to study the complex problems presented by modern communications circuits. The pre-radar and ultra-high frequency section of the laboratory consists of standing wave ratio measuring section, wave guides, ultrahigh frequency wave meter, tubes, klystron, megotrons (lighthouse tubes), parabolic, horn type radiators, and measuring accessories.

The department has a high frequency transmitter and R.C.A. dynamic demonstrator, radio frequency oscillators, bridges, meters and other accessories. Two 150 foot steel towers provide excellent facilities for the study of antennae and radiating problems.

Industrial Electronics Laboratory. The new Industrial Electronics Laboratory is complete with a 25 Kw . Ignitron Converter, Thyratron motor control, motor speed regulator, A.C. and D.C. voltage regulators, electronic air cleaner, automatic synchronizer, electronic timers of various types, photoelectric
controllers, 150 Kv . industrial X-ray, induction heating and dielectric heating furnace, welders and electronic welding controls, supplemented by a miscellany of high vacuum and gas tubes and testing equipment.

Mechanical Engineering Laboratory. This laboratory is maintained in connection with the University heating plant. The students study and observe a modern boiler plant in actual operaton. Equipment is provided for experimental work in the fields of heat power, of air and gas flow, and of refrigeration.

In the field of heat power, the laboratory has the following major equipment in addition to auxiliary equipment and necessary instruments:

A steam engine equipped with a Prony brake, two types of valves, two types of governors, and steam engine indicator.

A steam turbine equipped with an oil relay governor and a water brake. This unit is also connected to a direct current generator for loading.

A surface condenser with a steam-air injector.
, A small vertical fire-tube boiler equipped for gas firing.
Two 300 -h.p. water-tube boilers fired with gas and equipped with forced-draft fan, induced-draft fan, and automatic combustion control.

An electric dynamometer with a Ford V-8 engine, a Dodge eńgine, and Waukesha Multifuel engine.

A gasoline engine with a variable compression ratio for fuel research. A small stationary gasoline engine equipped with electric dynamometer.

Calorimeters for determining the heat value of solid, liquid, and gas fuels.

In the field of air and gas flow, the laboratory is equipped with a steam-driven, two-stage air compressor, an air-flow test set, and recording and indicating meters for measuring the flow of air, steam, and natural gas.

In the field of refrigeration, the laboratory is equipped with a complete test plant including an ammonia compressor, receivers, coolers, heat exchangers, etc.

Shor. The machine shop is equipped with lathes, shapers, drill presses, vertical and horizontal milling machines, surface and universal grinders for working metal. The sheet metal shop has a very good assortment of tools and equipment. The woodworking equipment includes band, circular, and jig saws, joiner, lathe, hand tools and benches for pattern making and cabinet work.

The welding shop contains A.C. and.D.C. arc welding, gas welding and cutting equipment.

Aeronautical Engineering Laboratory. This laboratory is equipped to provide for experimental work in aerodynamics, airplane structures, and aircraft engines. The equipment approved for this laboratory includes aircraft engines, both air cooled and water cooled, wing sections, fuselage sections, air navigation instruments, radio communication equipment, and a wind tunnel to study fluid phenomena.

Petroleum Engineering Laboratory. The laboratory for this department is housed in the heating plant with the mechanical engineering laboratory. Equipment is available for the study of oil and gas flow, fuel analysis, and lubrication as well as tests on the various types of heat engines and pumps.

## REQUIREMENTS FOR GRADUATION

Candidates for the degree of Bachelor of Science in any of the departments must complete all of the work outlined in their respective curricula. Electives, where permitted, are to be chosen with the advice and consent of the head of the major department. The course of study for the first yeár is uniform for all departments. At the end of the freshman year, the student should elect the course which he intends to follow and report his choice to the dean's office.

Students who are required to take English A must do so in addition to the regular courses in English. Two thirds of the semester hours in the required work must be of C grade or better, and the total number of grade points in the hours offered for graduation must equal the total number of hours.

## CURRICULA OFFERED BY THE COLLEGE OF ENGINEERING <br> Courses of Study for All Engineering Students.

 FRESHMAN YEAR| First Semester |  | Second Semester |  |
| :---: | :---: | :---: | :---: |
| Math. 18 a Math for Engineers | 5 | Math. 18 b Math. for Engineers | 5 |
| Engl. 1 a Composition | 3 | Engl. 1 b Composition | 3 |
| Chem. 1 L General | 4 | Chem. $2 L$ General | 4 |
| Engr. 1 L Draw. \& Desc. Geom. | 2 | Engr. 21. Draw. \& Desc. Geom. | 2 |
| Engr. 3 Introduction to Engr. | 1 | Engr. 4 Introduction to Engr. | 1 |
| Shop 10 Woodshop or | 2 | Shop 10 Woodshop or | 2 |
| Shop 20 Machine Shop or | 2 | Shop 20 Machine Shop or | 2 |
| C. E. 1 L Elem. Surveying | 2 | C. E. 1 L Elem. Surveying | 2 |
| Physical Educ. | 1 | Physical Educ. | 1 |
|  | 18 |  | 18 |

## COLLEGE OF ENGINEERING

Note: Students deficient in English will be required to take English A in addition to English 1. Students in chemical engineering should take Chem 4 L in Sem. II, in place of 2 L ; and omit shop and surveying.

CURRICULUM LEADING TO THE DEGREE OF BACHELOR OF SCIENCE IN CIVIL ENGINEERING

## SOPHOMORE YEAR



## JUNIOR YEAR

| C. E. 102 L Str. of Materials | 4 | M. E. $10_{4}$ L Elem. of Thermodyn. | 4 |
| :---: | :---: | :---: | :---: |
| M. E. 105 Mechanics (Dynamics). | 2 | C. E. 118 L Highway Engr. | 4 |
| C. E. 110 L Hydraulics | 4 | C. E. 114 L . Theory of Structures | 2 |
| C. E. 111 L Stresses | 2 | C. E. 117 L Reinforced Concrete | 2 |
| C. E. 115 L Masonry Materials | 3 | C: E. 104 L Curves \& Earthwork | 3 |
| Econ. 105 Prin. of Economics | 3 | Electives | 3 |
|  | 18 |  | 18 |

C.E. 157 F Field School 2

SENIOR YEAR

| C. E. $5^{8} \mathbf{8}$ L Steel \& Wood Struct. | 3 | C. E. 160 L Struct. Design |
| :---: | :---: | :---: |
| C. E. 159 L Masonry Structures | 3 | C. E. 152 Contracts and Spec. |
| C. E. 161 L Water Supply | 3 | C. E. 162 L Sanitary Engineering |
| C. E. 167 L Soils | 3 | E. E. 106 L Electrical Applications |
| E. E. 105 L Electrical Applications | 3 | Electives |
| Electives | 2 | . |
| . | - |  |
|  | 17 | 17 |

## CURRICULUM LEADING TO THE DEGREE OF BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING*

## SOPHOMORE YEAR

$\quad$ First Semester
Math. 53 a Calculus
Physics 1 aL General
Engl. 64 a Inf. Writing
M. E. 55 L Mechanisms
Elective
Physical Educ.

## Second Semester

| 4 | Math. 53 b Calculus | 4 |
| :--- | :--- | ---: |
| 4 | Physics 1 bL. General | 4 |
| 3 | C. E. 60 Mechanics | 3 |
| 3 | E. E. 52 L Survey of E. E. | 3 |
| 2 | Econ. 105 Prin. of Economics | $\mathbf{3}$ |
| 1 | Physical Educ. | 1 |
| -17 |  | - |

## COLLEGE OF ENGİNEERING

## JUNIOR YEAR

| E. E. 103 L. Elec. \& Mag. Circuits | 4 | E. E. 104 L A.C. Circuits |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| E. E. 101 L Direct Current Mach. | 4 | M. E. 104 L Elem. of Thermo. | 4 |  |
| M E. 105 Mechanics (Dynamics) | 2 | E. E. 192 L Electronics | 4 |  |
| C. E. 102 L Str. of Materials | 4 | C. E. 112 L Fluid Mechanics | 3 |  |
| Elective | 3 | Electives | 3 |  |
|  | - |  | - | 18 |

SENIOR YEAR
E. E. 151 L A.C. Mach.
E. E. 187 Elect. Engr. Analysis
E. E. 107 L Elec. Measurements
E. E. 111 Engr. Econ.

Elective
E. E: 195 L Ind. Electronics

Power Option

Communication Option
E. E. ${ }^{193}$ L Comm. Engr: $\quad \frac{4}{18} \quad$ E. E. 194 L. Communication Engr. $\frac{4}{18}$

CURRICULUM LEADING TO THE DEGREE OF BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING

SOPHOMORE YEAR

| First Semester |  | Second Semester |  |
| :---: | :---: | :---: | :---: |
| Math. 53 a Calculus | 4 | Math 53 b Calculus |  |
| Physics 1 aL General | 4 | Physics 1 bL General |  |
| Shop 64 L Pattern Making | 2 | M. E. 53 Engr. Materials | 3 |
| Econ. 105 Principles of Econ. | 3 | C. E. 60 Mechanics | 3 |
| M. E. 56 L Machine Drawing | 3 | Shop 70 L Machine Shop | 2 |
| Physical Educ. | 1 | Physical Educ. |  |
|  | - |  | - |
|  | 17 |  | 17 |

JUNIOR YEAR
M. E. 101 L Heat Power 4
M. E. 105 Mechanics (Dynamịcs) 2
C. E. 102 L Str. of Materials , 4
E. E. 105 L. Electrical Applications 3
M. E. 55 L Mechanisms

Elective
M. E. 102 L Thermodynamics 4
E. E. 106 L Electrical Applications 3
C. E. 112 L Fluid Mechanics 3

Engl. 64 a Inf. Writing 9
M.E. ${ }_{115}$ L Machine Design 3

Elective 2

18
18

## SENIOR YEAR

| M. E. ${ }_{5}{ }^{1}$ L M. E. Lab) | 2 | M. E. $1_{5}^{2}$ L M. E. Lab. |
| :---: | :---: | :---: |
| M. E. ${ }^{5} 53$ L M. E. Design | 3 | M. E. 154 L M. E. Design |
| M. E. 160 Int. Comb. Engines | 3 | M. E. 155 Power Plants |
| E. E. 153 L Electronics \& Controls | 3 | M. E. 162 L Refrigeration |
| Electives | 7 | M. E. $15^{6}$ Ind. Engineering Electives |
|  | 18 |  |

## COLLEGE OF ENGINEERING

## Aeronautical Option <br> SENIOR YEAR

| M. E. $15_{51}$ L Mech. Engr. Lab. | 2 | M. E. $1552^{\text {L }}$ Mech. Engr. Lab. |
| :---: | :---: | :---: |
| M. E. $1_{53}$ L Mech. Engr. Design | 3 | M. E. 154 L Mech. Engr. Design |
| M. E. 167 aL Aerodynamics | 3 | M. E. 167 bL. Aerodynamics |
| M. E. 160 Int. Comb. Engines | 3 | M. E. $1_{5} 6$ Ind. Engineering |
| Electives | 7 | M. E. 171 Airplane Structures Electives |
|  | - |  |
|  | 18 |  |

## Petroleum' Production Option

Substitute Geology 1,5 L and 2, 6 L for M.E. 53 and one shop course and take Chemistry 55 abL and one other Geology course as electives before graduation.

## SENIOR YEAR

| M. E. 151 L. Mech. Engr. Lab. | 2 | M.E. 152 L Mcch. Engr. Lab. | 2 |  |
| :--- | :--- | :--- | :--- | ---: |
| M. E. 153 L Mech. Engr. Design | 3 | M. E. 154 L Mech. Engr. Design | 3 |  |
| M. E. 160 Int. Comb. Engines | 3 | M. E. 181 b Petroleum Production | 3 |  |
| M. E. 181 a Petroleum Production | 3 | Electives | 10 |  |
| Electives |  | 7 |  | 18 |

## CURRICULUM LEADNG TO THE DEGREE OF BACHELOR OF SCIENCE IN CHEMICAL ENGINEERING

SOPHOMORE YEAR


JUNIOR YEAR
_First Semester
Second Semester
Chem. 103 aL Organic $\quad 5 \quad$ Chem. 103 bL Organic 5
Chem. 111aL Physical 4 Chem. 111bL Physical 4
M. E. 101 L Heat Power 4 M. E. 102 L. Thermodynamics 4
E. E. 105 L Electrical Applications 3

Elective
E. E. 106 L Electrical Applications 3 Electives
$\overline{18} \quad$ -

SENIOR YEAR

| Chem 160 a Chem. Engr. Calc. 2 | Chem. 160 b Chem. Engr. Calc. |
| :---: | :---: |
| Chem. 162 aL Prin. of Chem. Engr. 3 | Chem. 161 bL Prin. of Chem. Engr. 3 |
| M. E. 105 Mechanics (Dynamics) 2 | C. E. 112 L Fluid Mechanics |
| M. E. 55 L Mechanisms 3 | Electives 10 |
| C. E. 102 L Str. of Materials 4 |  |
| Electives 4 | - . |
| $\overline{18}$ | 18 |

## COLLEGE OF ENGINEERING

CURRICULUM LEADING TO THE DEGREE OF BACHELOR OF SCIENCE IN INDUSTRIAI ARTS


## JUNIOR YEAR

C. E. 60 Mechanics
Shop 60 L Cabinet Work
Shop 64 L Pattern Making
M. E. 55 L Mechanisms
Electives
C. E. 107 L Strength of Materials
Shop 105 L Sheet Metal Work
Shop 104 L Pattern Making
M. E. 115 L Machine Design
Econ. 105 Principles
Elective

17
17

## SENIOR YEAR

E. E. 109 aL Applied Elect.
M. E. 104 L Elem. of Thermo.

Shop 107 L Foundry Practice Econ. 141 Labor Problems Electives
E. E. 109 bL Applied Elect. 3 Shop $\log ^{-}$L Arc \& Acety. Welding M. E. ${ }^{156}$
Electives 3 Electives8

COLLEGE OF ENGINEERING

## DEPARTMENTS OF INSTRUCTION

Courses numbering: from 1-50, lower division, normally open to freshmen; from 51-100, lower division, normally open to sophomores; from 101-200, upper division, normally open to juniors, seniors, and graduates; 201-300, open to graduates only. Graduate credit for courses listed is allowed at the discretion of the Graduate Committee.

Symbols used in course descriptions: ab or cd-course offered throughout two semesters; L-part of the course is laboratory
work; F-course is given during field session; SS-course offered in eight weeks' summer session only; Yr-course offered throughout two semesters and credit for a single semester's work is suspended until the entire course is completed; I-course offered in first semester only; II-course offered in second semester only; *course open to General College students; $\dagger$-course offered for General College credit only; ( )-credit value for each course for each semester; [ ]-former course number or title.

A schedule of course offerings, including hours of meeting, is issued at the opening of each session. The University reserves the right to cancel any listed course or to make a substitution in instructors when necessary.

## Éngineering

Professors Farris (Dean), Ford, Smith, Tapy, Thomas, Wagner; Associate Professor Jones; Assistant Professors Bailey, Baylor, Hardgrave, Heimerich, Pilch, Reynolds, Steen; Instructors Biddle, Blume, Forkel, Jacobson, Kubler, May

## GENERAL COURSES

*1 L, 2 L [1 abL] Engineering Drawing and Descriptive Geometry. (2-2) The essentials of drafting including the use of instruments, lettering, projecting, sections, developments, isometric drawing, and working drawings, and the theory and science of engineering drawing: Approved drawing equipment required. 6 hrs lab.
3, 4 [2ab] Introduction to Engingering. (1-1) Oṛientation and engineering problems.
55 L. Architectural Drafting. (3) Preparation of complete small-scale working drawings for small buildings. Prerequisite: Engr. 1 L and 2 L .
171, 172. Seminar. (l-1) Prerequisite: senior standing.

## CIVIL ENGINEERING

1 L. Surveying. (2) Lectures and field work in the theory and practice of plane surveying. 1 lecture, 3 hrs lab.
53 L . Advanced Surveying. (3) Field and office work in the establishment of precise horizontal and vertical control for triangulation, and topographic details by stadia and plane table; elementary photogrammetry. 1 lecture, 6 hrs . lab. Prerequisites: C. E. 1 L and Mathematics 18 b .
54 L. Engineering Astronomy. [Geodetic Surveying]. (2) Astronomical determination of azimuth, longitude, latitude
and time; and non-mathematical general astronomy. 1 lecture, 3 hrs. lab. Prerequisite: C. E. 53 L.
60. [60 L] Mechanics. (3) Principles of statics. Co-requisite: Mathematics 53 b .
102 L. Strength of Materials. (4) The mechanics of materials, theory of beams, columns, and shafts. Prerequisite: C. E. 60.3 lectures, 3 hrs lab.

104 L. Curves and Earthwork. (3) Field and laboratory work in the establishment of curves as applied to railroads and highways; earthwork, mass diagrams. Prerequisites: C. E. 1 L, Mathematics 18 b . 2 lectures, ' 3 hrs. lab.

107 L. Strength of Materials. (3) (For Industrial Arts students.) The mechanics of materials; theory of beams, columns, and shafts. 2 lectures, 3 hrs. lab. Prerequisite: C. E. 60.

110 L. Hydraulics. (4) Hydrostatics; gages, buoyancy; pressure on dams and gates. Hydrokinetics; flow of water through orifices, tubes, nozzles, Venturi meter, weirs, pipes, and open channels; turbines and current meters. Corequisite: M. E. 105. 3 lectures, 3 hrs. lab.
111 L. Stresses. (2) Graphical and analytical solutions of framed structures such as beams, girders, and trusses. Prerequisite: C. E. 60. 1 lecture, 3 hrs. lab.
112 L. Fluid Mechanics. (3) (For other than Civil Engineering students.) Hydrostatics and flow of liquids through open and closed conduits. Prerequisite: M.E. 105. 2 lectures, 3 hrs . lab.
114 L. Theory of Structures. (2) Moment and sheer diagrams, influence lines; moving load systems; equivalent uniform loadings; beam deflections; fixed-end moments and moment distribution. Miscellaneous design and detailing of elementary members. Prerequisites: C.E. 102 L and C. E. 111 L . 1 lecture, 3 hrs lab.

115 L. 'Masonry Materials. (3) The manufacture and properties of lime, clay products, and cement; occurrence and properties of stone, sand, and gravel; design and tests of concrete and mortars. Prerequisite: junior standing. 2 lectures, 3 hrs. lab.
117 L . Reinforced Concrete. (2) The analysis and design of elementary reinforced-concrete members. Properties of concrete. Specifications. Prerequisite: C.E. 111 L .1 lecture, 3 hrs. lab.
118 L. Highway Engineering. (4) Locations, construction, maintenance, cost durability, and methods of financing all

## COLLEGE OF ENGINEERING

types of primary and secondary roads and pavements. Prerequisite: C. E. 53 L .3 lectures, 3 hrs. lab.
152. Contracts and Specifications. (2) The law governing engineering practice; contracts, specifications, and ethical relations. Prerequisite: senior standing.
157 F. Field Surveying. (2) Summer camp, two weeks. Practice in topographic surveying. Complete surveys of projects are made and the notes used for mapping. Prerequisite: C. E. 53 L .
158 L. Steel and Wood Structures. (3) The design and detail of girders, roof trusses, highway and railway bridges, building frames, and mill buildings. Prerequisite: C.E. 114 L .2 lectures, 3 hrs lab.
159 L. Masonry Structures. (3) Design and detail of retaining walls, foundations, highway bridges, slab constructions, and building frames. Prerequisite: C. E. 111 L . 2 lectures, 3 hrs. lab.
160 L. Structural Design. (3) Analysis and design of indeterminate structures. Use of classical and modern methods in analysis of rigid frames, continuous beams and trusses, arches, continuous building frames, cantilever and suspension bridges. Prerequisites: C.E. 114 L and C.E. 111 L .2 lectures, 3 hrs lab.
161 L . Water Supply. (3) A study of works for collection, storage, purification, and distribution of municipal water supplies; sources of supply-streams, lakes, impounding reservoirs, wells. Prerequisite: C.E. 110 L .2 lectures, 3 hrs . lab.
162 L. [162 abL] Sanitary Engineering. [Municipal Engineering.] (3) A study of the principles of sewage-both storm and sanitary; design and construction of sewerage systems and disposal plants. Prerequisite: C. E. 110 L. 2 lectures, 3 hrs. lab.

167 L. Sols. (3) Engineering properties and treatment of soils. Prerequisite: senior standing. 2 lectures, 3 hrs. lab.

## 184. Water Power. (2) Problems in design and construc-

 tion relating to reservoirs, dams, conduits, and general hydraulic engineering. Prerequisite: C. E. 110 L.251 ab . Problems. (3-3) Advanced reading, design, or research.

Graduate Staff
300. Thesis. (4-6)

Graduate Staff

## ELECTRICAL ENGINEERING

## 52 L. Survey of Electrical Engineering. (3) Problems in power, communications, and illumination. Co-requisite: Mathematics 53 a .2 lectures, 3 hrs . lab.

101 L. Direct Current Machines. (4) Theory and application of D.C. motors and generators. Co-requisite: E.E. 103 L, or prerequisite: E. E. 52 L .3 lectures, 3 hrs. lab.
103 L. Electric and Magnetic Circuits. (4) Direct current electric and magnetic circuits, transients, electric and magnetic fields. Corequisite: Mathematics 53 b .3 lectures, 3 hrs. lab.
104 L. Alternating Current Cirguits. (4) Single phase and polyphase circuits, wave analysis, coupled circuits, steady state and transients, symmetrical components. Prerequisite: E. E. 103 L. 3 lectures, 3 hrs. lab.
105 L, 106 L. [106 abL] Electrical Applications. (3-3) Theory and application of D.C. and A.C. motors, generators, and transformers. Prerequisites: Mathematics 53 b and Physics 1 bL. 2 lectures, 3 hrs. lab.
109 abL. Applied Electricity. (3-3) Direct and alternating current circuits and machines and their practical application to the machines in small shops. 2 lectures, 3 hrs. lab.
107 L. Electrical Measurements. (2) Study of electrical measuring instruments, ammeters, voltmeters, watt-meters, watt-hour meters, cathoderay, and electro-magnetic oscilloscopes, bridges, etc. Co-requisite: E.E. 104 L. 1 lecture, 3 hrs. lab.
111. Engineering Economy. (2) The elements of economics as applied to engineering problems. Prerequisite: Economics 105.
132 L. Electronics. (4) Electron ballistics, electron emission and electron conduction through vacuum, gases and vapors. Theory and application of high vacuum and gas electron tubes. Co-requisite: E. E. 104 L. 3 lectures, 3 hrs. lab.
$151 \mathrm{~L}, 152 \mathrm{~L}$. [151 abL] Alternating Current Machinery. (4-4) Prerequisite: E.E. 104 L. 3 lectures, 3 hrs. lab.
153 L. Electronics and Control. (3) Application of elec-tro-magnetic and electronic control to industrial problems. Prerequisite: E. E. 105 L, 106 L. 2 lectures, 3 hrs. lab.

[^12]
## COLLEGE OF ENGINEERING

172. Industrial Applications.' (2) Application and control of direct and alternating current machines. Co-requisite: E. E. 152 L.
173. Generating Stations. (3) The engineering and economic considerations governing the location, design, and operation of electric power plants, and the elementary principles of corporate finance and rate-making. Prerequisites: Economics 105 and E. E. 151 L .
174. Elegtrical Engineering Analysis. (3) A course emphasizing the fundamentals of electricity and using the mathematical approach to electrical problems. Prerequisite: senior standing:
193 L. Communication Engineering. (4) Theoretical treatment of networks, resonant, circuits, transmission lines, filters, couples circuits, equalizes, and basic ultra-high frequency theory. Prerequisite: E.E. 132 L. 3 lectures, 3 hrs. lab.
194 L. Communication Engineering. (4) Theory, design, and application of class $\mathrm{A}, \mathrm{AB}$, and $\mathrm{B}, \mathrm{C}$ amplifiers, frequency and amplitude modulators and demodulators to telephone and radio communication cirćuits. Prerequisite: E.E. 193 L. 3 lectures, 3 hrs. lab.
195 L. Industrial Electronics. (4) Electronics as applied to industrial problems. Rectifiers, speed and voltage regulators, automatic synchronizers, industrial X-ray, high frequency heating, etc. Prerequisite: E. E. 132 L. 3 lectures, 3 hrs. lab.
196 L. Poüer Transmission and Distribution. (4) Electrical and mechanical characteristics; economics of transmission and distribution systems. Prerequisite: E. E. 151 L. 3 lectures, 3 hrs. lab.
204 L̀. Electro-Dynamics.
251 ab . Problems. (3-3) Advanced reading, design, or research.
175. Thesis. (4-6)

Graduate Staff
Graduate Staff

## MECHANICAL ENGINEERING

53. Engineering Materials. (3) Characteristics of metals, alloys, wood, and concrete, and of the manufacture and heat treatment of iron and steel. Prerequisite or co-requisite: Chemistry 2 L .
55 L . Mechanisms. (3) Displacements, velocities, and accelerations of such machine elements as links, cams, gears,
chains. Prerequisite: Engineering 1 L, 2 L. 1 lecture, 6 hrs. lab.

> 56 L. Machine Drawing. (3) Detail and assembly drawing of machine parts. Prerequisite: Engineering 1 L, 2 L. lecture, 6 hrs. lab.
> 101 L. Heat Power Engineering. (4) Theory and characteristics of heat engines and heat power equipment. Prerequisites: Mathematics 53 b and Chemistry 2 L . 3 lectures, 3 hrs. lab.

102 L. Thermodynamics. (4) Prerequisite: M. E. 101 L .3
lectures, 3 hrs. lab.
104 L. Elements of Thermodynamics. (4) Principles of heat engines and thermodynamics. Not for mechanical and chemical engineers. Prerequisite: Mathematics 53 b . 3 lectures, 3 hrs. lab.
105. Mechanics. (2) Principles of dynamics. Prerequisite: C. E. 60.

115 L. Elementary Machine Design. (3) Introduction to transmission of power by gears, belting, and shafting; proportioning for strength of fastenings, couplings, shafts, and frames; design of gears for strength and wear; specification of fits and tolerances; principles of lubrication and bearing design. 1 lecture, 6 hrs. lab.
151. L. [151 aL] Mechanical Engineering Laboratory. (2)
Tests of steam boilers, engines, turbines, pumps and com-
pressors. Prerequisite: M. E. 102 L . 6 hrs. lab.

152L. [151 bL] Meghanical Engineering Laboratory. Tests of internal combustion engines, their fuels and lubricants. Prerequisite: M. E. 102 L .6 hrs. lab.
$153 \mathrm{~L}, 154 \mathrm{~L} . \quad[153 \mathrm{abL}]$ Mechanical Engineering Design. (3-3) Machine elements, working drawings, and cost estimates. Prerequisites: M.E. 55 L and C.E. 102 L .1 lecture, 6 hrs. lab.
155. Power Plants. (3) Types and equipment. Prerequisite: M. E. 102 L.
156. Industrial Engineering. (2) The principles of management applied to the general operation of engineering projects and manufacturing plants. Prerequisite: senior standing.
160. Internal Combustion Engines. (3) Theories of Otto and Diesel type engines. Prerequisite: M. E. 102 L .

## COLLEGE OF ENGINEERING

162 L. Refrigeration. (3) The theory of refrigeration and the testing of refrigerating equipment. Prerequisite: M.E. 102 L .2 lectures, 3 hrs . lab.

167 abL . Aerodynamics. (3-3) Application of the fundamental principles of mechanics and hydrodynamics to the study of airplane design and performance. Prerequisite: Engineering $102 \mathrm{~L}, \mathrm{a}: 3$ lectures; b: 2 lectures, 3 hrs lab.
171. Airplane Structures. (2) Application of fundamental principles of structural theory to practical airplane design. Prerequisites: M.E. 102 L, 167.
181 ab . Petroleum Production. (3-3) Oil field development methods of drilling and oil recovery, preliminary refining, storage, and transportation. Prerequisite: senior standing.
251 ab. Problems. (3-3) Advanced reading; design, or research.
300. Thesis. (4-6)

Graduate Staff
Graduate Staff

## SHOP

10 L. Woodwork. (2) Instruction in proper use of hand tools, knowledge of common tools, joinery, and the setting up of, and the operation of, woodworking power machinery. 6 hrs . lab.
20 L. Machine Shop. (2) Bench work such as filing, tapping and simple layouts, and the operation of engine lathes, drill presses, shapers, grinders, and milling machines. 6 hrs. lab.
60 L . Cabinet Work. (3) Working knowledge of all types of joints and finishes, construction of some article built complete, and the study of styles of furniture. Prerequisite: Shop 10 L . 1 lecture, 6 hrs . lab.

- 62 L . Woodwork. (3) Use of steel square and elementary construction. Prerequisite: Shop 10 L. 1 lecture, 6 hrs. lab.
64 L. Pattern Making. (2) Construction of patterns such as one-piece, two-piece, straight and irregular parting; core box design and construction; and the methods of marking and storage. Prerequisite: Shop 10 L .6 hrs . lab.
70 L. Machine Shop. (2) Advanced machine-shop processes on all machines and the machining and assembling of some machine such as wood lathe, permanent mold, sub press, wood vise. Prerequisite: Shop 20 L .6 hrs . lab.
104 L. Pattern Making. (3) Construction of master patterns, plaster models, metal patterns and core boxes, gated


## COLLEGE OF ENGINEERING

patterns, and plated patterns of both wood and metal. Prerequisites: Shop 10 L and 64 L . 1 lecture, 6 hrs lab.
105 L. Sheet Metal Work. (3) Construction of forms used in heating, ventilating, and air conditioning; development of intersections; and the proper uses of hand tools and turning machines. 1 lecture, 6 hrs . lab.
107 L. Foundry Practice. (3) Bench molding, core making, and sand tempering; the melting and casting of ferrous and non-ferrous metals; and the cleaning of castings. 1 lecture, 6 hrs. lab.
109 L. Arc and Acetylene Welding. (3) Use of arc and oxyacetylene welding, the brazing of ferrous and non-ferrous metals, and torch cutting. : l lecture, 6 hrs. lab.

## COLLEGE OF EDUCATION

The purpose of the College of Education is to correlate the forces of the University in order to meet the needs of the state in the preparation, training, and certification of teachers, supervisors, and administrators. The college sets for itself these tasks: the thorough training of elementary and high school teachers and of supervisory and administrative officers; the provision of courses in the various fields of education, and of opportunities for research.

The curricula are based upon the assumption that the teacher or supervisory officer should have a broad and liberal education; that he should be master of the subject or group of subjects that he expects to teach; and that his training should be supplemented by professional education designed to give a knowledge of the pupils to be taught, the problems to be met in teaching, and the new meaning of the subjects of instruction. For the prospective teacher this policy has the effect of placing the emphasis upon the subjects he intends to teach.

## STANDARDS

Graduation from the College of Education meets the requirements of the New Mexico State Board of Education for certification of high school and elementary teachers, and the recommendations of the North Central Association of Colleges and Secondary Schools as to professional subjects in education, and the proper subject matter ${ }_{\text {r }}$ courses for purposes of high school teaching. Because of the tendency in various states to increase the number of,credit hours in education for certification, students are advised to secure credit in not less than twenty-four semester hours in education, including general psychology.

## PRINCIPLES GOVERNING THE COLLEGE OF EDUCATION IN ITS TEACHER EDUCATION PROGRAM

1. The direction of the programs of all students expecting to receive a Bachelor's degree in Education should be under the supervision of the College of Education.
2. Although it shall be the general policy of the College of Education to accept the recommendation of the department concerned, the College of Education reserves the right of final approval of the specific courses within fields as suitable majors or minors for students enrolled in the College of Education.

## COLLEGE OF EDUCATION

3. All courses in educational methods are to be taught by persons approved by the dean of the College of Education.
4. For those students who desire to prepare themselves to teach music or art in the elementary, junior high, and senior high schools, majors in Music Education and Art Education are offered.
5. Instructors teaching courses in both methods and subject matter courses are considered members of the faculty of the College of Education as well as of the college in which the subject matter courses are represented.
ADMISSION
For the quantitative requirements for admission to the College of Education, see "Admission."

In the admission of applicants to the College of Education, the following points will be considered: (l) good moral character, (2) physical and intellectual fitness, and (3) personal qualities necessary for success in some field of education.

A student intending to prepare for teaching should register in the College of Education, in order that he may be educationally guided and be enabled to make the necessary professional adjustments.

## MAXIMUM NUMBER OF HOURS

No student in this College may enroll for more than 17 semester hours, plus one hour of physical education (or military drill in the case of N.R.O.T.C. students), unless his standing for the previous semester was at least B in two-thirds of his studies, with no grade below C; and then only by presenting a written petition to the Committee on Scholarship, which may, in its discretion, grant permission to enroll for extra work up to a maximum of 19 hours.

## EXTRA-CURRICULAR ACTIVITIES FOR TEACHERS

In choosing teachers, principals and superintendents are always anxious to find candidates who are able to handle extracurricular activities, or who have developed some particular ability which will contribute to the life of the school. From the point of view of getting a position and becoming indispensable after the position has been secured, such specialized abilities as those which enable teachers to direct glee clubs, coach athletic and debating teams, manage student publications, and sponsor school clubs of various kinds, are extremely important. There are many opportunities at the University for securing training and experience in these fields. It is strongly recommended that prospective teachers take advantage of them.

## PRACTICE TEACHING FACILITIES

The College of Education has made arrangements with the Albuquerque public school authorities whereby student teaching is carried on under the personal direction of selected teachers, who act as critic teachers under the general direction of a professor of education in the College of Education.

The facilities of the city school system furnish an excellent opportunity for students to work in a practical laboratory where the principles and best practice in teaching can be exemplified and applied. The practice teaching is correlated with the subjects taught in the University.

## LABORATORIES

Laboratory for the Department of Secondary Edúgation. The facilities of the Department of Secondary Education have been materially increased by the equipment of a workroom, or laboratory, in which will center all work connected with the professional training of high school teachers. The major publishing houses are keeping this room supplied with textbooks and other materials of secondary education with which students will wish to become familiar. Here, too, will be found various types of research materials for students in this department.

Laboratory and Materials for the Department of Elementary Education. A large workroom is available for students. It is equipped with apparatus and materials to assist in constructing units of work for practice teaching and classwork.

Laboratory in Commercial Education. A laboratory in commercial education is now available for those who are preparing to teach in that field. This laboratory has been added to meet a recognized need in the public schools.

Longfellow School. Through a coöperative arrangement with the Albuquerque Public Schools, the University is enabled to use the Longfellow School for demonstration and practice teaching. Here in typical situations the beginning teacher is assisted in solving her problems by experienced critic teachers. The work is under the direction of the school principal and the director of practice teaching in the College of Education.

## PLACEMENT BUREAU

A placement bureau, one function of which is to assist students and graduates of the University in obtaining positions in the teaching profession, is maintained by the University. The bureau aims to keep on file a complete record of the scholarship, experience, and personal qualifications of each candidate for a
position. Copies of these records will be mailed to school officials at their request. The University reserves the right to refuse to extend its coöperation to students who apply for positions for which they are manifestly unfit.

Blanks for registration may be obtained from the Placement Bureau. A fee of $\$ 2$ is charged each registrant and includes permanent registration. No commission is charged by the Bureau. Communications should be addressed to the Placement Bureau.

## scholarship regulations

See pp. 50, 51.

## REQUIREMENTS FOR GRADUATION

Upon the completion of all specified requirements, candidates for degrees in the College of Education who major in commercial work, educational administration, home economics, mathematics, or a science, receive the degree of Bachelor of Science in Education; those who major in physical education receive the degree of Bachelor of Science in Physical Education; those who major in industrial arts receive the degree of Bachelor of Science in Industrial Arts Education; and those who major in other subjects receive the degree of Bachelor of Arts in Education.

Candidates for degrees in the College of Education are required to comply with the following regulations:

1. Students who plan to be high school teachers should complete a major and a minor in subjects usually taught in high schools.
2. A major is the principal subject which the student desires to teach in high school. It consists of a minimum of twenty-four semester hours above freshman grade in the subject selected. It must be chosen with the advice of the dean.

A minor should be selected in a subject which the student plans to teach, and whenever possible, the student should secure a second minor. The specific requirements for majors and minors are listed under the several departments; the work in these fields must be of at least C quality, and courses in which the grade of $\mathbf{D}$ is earned are accepted only as electives.
3. It is often necessary for the teacher of science to teach classes in more than one field. The same is true of teachers of social science. This makes it impossible for students to make adequate preparation for teaching in these fields by completing a major in any one department of the University.

## COLLEGE OF EDUCATION

Therefore, students preparing to teach in one of these fields will be permitted to complete either a general Major in Science or a general Major in Social Science as follows:
A. Major in Science in Secondary Education. The major in science shall consist of 48 hours, including freshman courses, in the departments of Biology, Chemistry, Geology, and Physics. The student shall offer a minimum of 12 hours in each of three of these departments. No minor is required, but one is strongly recommended. Survey courses will not be accepted toward the major. Necessary deviation from the rule requiring 40 hours above 100 will be approved in individual cases:
B. Major in Social Studies in Secondary Education. Students preparing to teach the social studies in secondary schools may be permitted to offer a major in general social studies. Such general social studies major shall consist of at least 48 hours, including freshman courses, of which 18 hours must be in the Department of History, 9 hours in the departments of Government and Citizenship and Economics, 9 hours in the departments of Sociology, Anthropology, and Geography, 12 hours in electives from social studies departments. No minor is required with the general social studies major, but one is strongly recommended.
4. The demand for teachers of commercial subjects has steadily increased in recent years. Students preparing to teach in high schools may now offer a major or minor in this field. Upon graduation, they will receive the degree of Bachelor of Science in Education.
5. Students preparing to teach should follow the curriculum as outlined. A minimum of 128 semester hours, including physical education (or equivalent N.R.O.T.C. credits), is required for graduation. This amount is based upon an average quality of work done. Ninety hours of the total must be C grade or better, and, in addition, students transferred from other institutions must make a grade of $\mathbf{C}$ or better in three fourths of the hours earned in the University of New Mexico.
6. In addition to the required work in majors and minors, professional courses in education are required as outlined in the various curricula. All candidates for degrees are required to take a course in observation and practice teaching.
7. Students who desire to prepare for administrative or supervisory positions should major in the curriculum for administrators and supervisors, and should minor in some subject which has bearing upon their chosen field of work.

## COLLEGE OF EDUCATION

8. Students who plan to teach in the elementary schools are not required to have a major or a minor, nor meet the group requirements listed below. They will be expected to follow the curriculum as outlined on p. 142.
9. Each candidate for a degree must complete at least 40 semester hours in courses numbered above 100.
10. No student shall be recommended for graduation unless he shows ability to write and speak clear and correct English.
11. For minimum residence requirements, see p. 55.

## GROUP REQUIREMENTS

Students must complete the following requirements in the various groups. As much of this work as possible should be done in the freshman and sophomore years, and professional work and major and minor requirements should be completed in the junior and senior years. For required courses in physical education, see p. 55.
I. English. As evidence of proficiency in oral and written English a student must earn 12 semester hours. Six hours must be earned in English 1 ab and 6 additional hours must be earned in courses numbered above 50. (In the elementary curriculum, these additional hours must be in literature.)
il. Foreign Language. A student who has been admitted with no credit in a foreign language, or who begins a language in which he has done no work in high school is required to complete four semesters or twelve hours credit in one foreign language.

Other students continuing a language begun in high school will be tested and assigned to courses according to ability shown. Such students will then complete the remainder of the twelve hours required. Substitutions may be made as follows:
(1) Administrators and supervisors may substitute an equal number of hours of professional subjects.
(2) Students preparing to teach in high school may substitute an equal number of hours in their major and minor fields in addition to the regular requirements. This additional work must be of C grade or better.
(3) Students preparing to teach in the elementary schools are advised to take Spanish, but no foreign language is required.
III. Social Studies. Nine semester hours (not more than 6 from one department) must be completed in approved* courses in the departments of Anthropology, Economics, History, Gov-

[^13]ernment and Citizenship, Philosophy, or Sociology. A student admitted with less than one unit in social science is required to complete 12 hours in this group.
IV. Mathematics and Sciences. Eleven semester hours (not more than 8 from one department, and including 6 hours in courses that require laboratory work) must be completed in approved* courses in the departments of Biology, Chemistry, Geology, Home Economics, Mathematics, Physics, or Psychology. A student admitted with high school deficiencies in both mathematics and science is required to complete a total of 17 hours in this group.

## CURRICULA

The following curricula have been outlined for the purpose of directing students in their chosen fields of work. - There are curricula for students preparing to teach in high schools, and for students who wish to teach in the elementary schools.

Special curricula are provided for students preparing to teach art, music, physical education, or home economics in public schools.

The course in the Department of Naval Science and Tactics may be substituted during each semester of each school year for courses in required Physical Education. The course in Naval Science may also be substituted for courses in each of the curricula as prescribed by the dean.

CURRICULUM FOR STUDENTS PREPARING
TO TEACH IN HIGH SCHOOL
(Leading to the degree of Bachelor of Arts in Education of Bachelor of Science in Education.)


## COLLEGE OF EDUCATION



FRESHMAN YEAR

First Semester
English 1 a
Biology 1-L
History 1 a or 11 a
Art ${ }_{1}$ a
P.E.

Elective: Language or Anthro.

Second Semester
3. English 1 b 3
4 Biology 2 L 4
3 History 1 b or 11 b . 3
3 Arts and Crafts, Ed. 117 . 3
P.E.

Elective: Language or Anthro. 3

## SOPHOMORE YEAR

English-53 a $\ldots \quad 3 \quad$ English 53 b 3
Geology 1
3 Geology 2 or 54 , 3
History 51 a . 3 History 51 b
Language or Mathematics i. 3 Language or Child Study, H.E. 1383
Psychology $5^{1}$
Education 722
Music Education 93a
Music Education 93 b 2
P. E.

Education 121
P. E. 129

JUNIOR YEAR

Education 124
3 Education 122 - 3

Sociology 124
Education 185 (Psych.)
Sociology 110
Sociology 105
3
Elective:
Elective: Same, plus Child Study $\quad 6$
Dramatic Art
Corrective Speech
Geology 54
Anthropology

* College Arithmetic

Sociology $7^{1}$
Library Science

## SENIOR YEAR

Education 107 , 2 Education 102 3
Education 123. 3 Education $13^{6}$ 5
English $82 \quad 3 \quad$ Education $120 \quad 2$
Government 103
Electives • 4
Elective: Child Psychology,
Art or Music
$6^{\prime}$
All programs must be approved by head' of Department.
*For those who fail to pass an achievement test.
$\dagger$ If not taken during the sophomore year, an advanced course must be
substituted according to the advice of the dean.
$\ddagger$ One of these courses is required.
\#For required courses see departments of instruction.
§One teacher's course, according to the advice of the dean.

## CURRICULA FOR MEN STUDENTS PREPARING TO BE

 PHYSICAL EDUCATION DIRECTORS IN HIGH SCHOOLSOutlined for men preparing to teach physical education. This curriclum leads to the degree of Bachelor of Science in Physical Education.

> FRESHMAN YEAR

First Semester
English 1 a
Chem 40 aL
Second Semester

Social Sciences
$\begin{array}{lll}3 \\ 5 & \text { Biology } 1 \mathrm{~L} & 3 \\ 4\end{array}$
Physical Education M
Elective
3 Chem 40 bL $\quad 5$
5 Electives 2
Physical Education M
SOPHOMORE YEAR
English 55
Psychology 51
Physical Education 61 L
Health Education 72
Physical Education 40 L
Physical Education M
Electives
Physical Education 22-L

Physical Education 104 L
Education 107
Education 141
$\dagger$ Education 101

* Education 183

JUNIOR YEAR
4 †Education 102 3
2 Biology 93 L 4
3 Physical Education 162 L 3
3 Home Economics 104 , 2
3 Physical Education 167 - 3
Electives
2
SENIOR YEAR
Education 153
Physical Education 161
Physical Education 136
Physical Education 135 L
Physical Education 183a
Electives
3 Education $15^{6}$ 5
2. Physical Education 183 b 2

2 Physical Education 172
2 Physical Education 186
2 Health Education 185
3-4 Electives 5
The following minors in physical education have been outlined for men:

Athletic Coaching. Twenty-four semester hours. This minor is offered to qualify men to meet the demands of high schools and colleges for coaches and athletic supervisors who are also prepared to teach some academic subject. Practical work which is required, but given no academic credit, is to be arranged at the discretion of the department according to the student's needs. Physical Education 40 L and 41 L are recommended for all minors although they are not required.

| Home Economics 104 | 2 | Physical Education 172 | 2 |
| :--- | :--- | :--- | :--- |
| Physical Education 22 | 2 | Biology 1 L | 4 |
| Physical Education 61 L | 2 | Biology 36 | 3 |
| Physical Education 62 L | 2 | Physical Education 104 L. | 4 |
| Physical Education 136 | 2 |  |  |

## COLLEGE OF EDUCATION

Formal Physical Education. Twenty-four semester hours. This minor is intended to meet the needs of those students who wish to combine the teaching of physical education with their major subjects. Physical Education 40 L is recommended for all minors although it is not required.




HODGIN HALL

CURRICULUM FOR STUDENTS PREPARING
TO TEACH HOME ECONOMICS
(Leading to the degree of Bachelor of Science in Education.)
The College of Education curriculum for students preparing to teach Home Economics is approved by the State Department of Vocational Education for the training of teachers of homemaking who desire to teach in the federally-aided schools of the state.

## FRESHMAN YEAR

Second Semester

3 | English 1 b |
| :--- | :--- | :--- |
| Biology 96 |

## First Semester

English $1 \mathbf{a}$
Biology $1 \mathbf{L}$
Art 1 a
Home Economics 1 or $2 \mathbf{L}$
Physical Education
Library Science 21
4. Biology $3^{6}$
3. Art 1 b

3 Art 1 b 3
9-4 . Intro. to Social Science 1 a 3
1 Home Economics 1 or $2 \mathrm{~L} \quad 3 \cdot 4$
2 Physical Education $\quad 1$
SOPHOMORE YEAR


Chemistry 40 aL
Psychology 51
Home Economics 53 aL
Home Economics 63 aL Physical Education
Home Economics 127 L
Biology 93 L ।
English
Home Economics 138 L

Home Economics 107
Education 107
Education 153
Electives
5 Chemistry $40 \cdot \mathrm{bL} \quad 5$
3 Psychology 54. 3
3 Home Economics $53 \mathrm{bL} \quad 3$
3 Home Economics 63 bL 3
1 Physical Education .. 1
JUNIOR YEAR
4 Home Economics 132
4 Education $\mathbf{1 4}^{1}$ - 3
3 Home Economics 109 3
4 Electives $\quad 6$
SENIOR YEAR
3 Home Economics 196 I
2 Home Economics 128 3
3 Home Economics 133 L. 3
, 7 Education 155 d 3

Education ${ }_{15}{ }^{6}$ 5
CURRICULA FOR STUDENTS PREPARING TO TEACH MUSIC EDUCATION
(Leading to the degree of Bachelor of Arts in Education.) The following courses will satisfy the requirements for a major study in Music Education. Candidates must complete a minor study in some other teaching subject, and follow the curriculum for Elementary or Secondary Education. Applied music must include voice and piano study, the number of hours in each to be determined upon consultation with the head of the Department of Music Education.

If electives are selected in the Music Department, the following courses are recommended: Music $95 \mathrm{ab}, 36 \mathrm{ab}, 157 \mathrm{ab}$, 152 ab , Dramatic Art 90 ab , or applied music.

Curriculum for students preparing to teach music in the elementary grades: (Students preparing to teach music in the

## COLLEGE OF EDUCATION

elementary schools should follow the elementary curriculum as outlined on p. 142, and should take the required number of hours and courses to complete their major in lieu of the electives provided in the elementary curriculum.)

| Music 5 ab | 6 | ${ }^{*}$ Music 165 ab |  |
| :---: | :---: | :---: | :---: |
| Music 55 ab | $4-\quad$ Applied Music | 6 |  |
| Music 16 gab | 4 | Ensemble Music | 2 |

Curriculum for students preparing to teach music in the secondary schools:

| Music 5 ab | 6 | Music 153 ab | 4 |
| :--- | :--- | :--- | :--- |
| Music 36 ab | 6 | Music Education $93 \mathrm{~b}, \mathbf{1 5 5} \mathbf{f}$ | 5 |
| Music 55 ab | 4 | Ensemble Music | 4 |
| Music 157 ab | 4 | Applied Music | $\mathbf{8}$ |
| *Music 163 ab |  | 4 | Dramatic Art 90 a |

The following music courses will satisfy the requirements for a minor study in Music Education. Students who minor in Music Education must pass a satisfactory examination in piano and voice, or take one hour each in voice and piano class instruction.


## CURRICULUM FOR ADMINISTRATORS AND SUPERVISORS

(Leading to the degree of Bachelor of Science in Education.) Twenty-four semester hours of work in courses numbered above 50 are necessary for a major. The following courses are acceptable toward meeting the requirements for a major study in administration and supervision. Candidates must also complete a minor in some field other than education.

| Educational Psychology | 3 | City School Administration | 3 |
| :--- | :--- | :--- | :--- |
| History of Education | 3 | Problems of Education in N. M. | 2 |
| Mental Measurements | 3 | Supervision of Elementary Educ. | 3 |
| Educational Tests and Statistics | 3 | Educational and Vocational Guid. | 3 |

CURRICULUM FOR ART SUPERVISORS, JUNIOR AND
SENIOR HIGH SCHOOL TEACHERS
(Leading to the degree of Bachelor of Arts in Education.) Arranged for supervisors and teachers of Art Education.

FRESHMAN YEAR

First Semester
English 1 a
Math. or Science
Art 1 a
Art 45
Physical Education
Art 32

## Second Semester

| 3 | English 1 b | 3 |
| ---: | :--- | ---: |
| 3-4 | Math. or Science | $3-4$ |
| $\mathbf{3}$ | Art 1 b | 3 |
| $\mathbf{3}$ | Art 45 | 3 |
| 1 | Education 17 | 3 |
| 2 | Physical Education | 1 |

3-4 Math. or Science 3-4
Art 1 b 3
Art 45 3
Physical Education

## COLLEGE OF EDUCATION

## SOPHOMORE YEAR

English
Psychology 51
Social Studies
Art 52
Art 75 a
Physical Education

Education 102
Education 107
Art 69
Art 193 a
Social Studies
Electives (Art)

## Education 155 a <br> Education 128

Electives (Art)
CURRICULUM FOR STUDENTS PREPARING TO
TEACH COMMERCIAL WORK
(Leading to the degree of Bachelor of Science in Education.)
FRESHMAN YEAR
First Semester
English 1 a
Math. or Science
Social Studies
Physical Education
Foreign Language
Business Administration it a
Elective
SENIOR YEAR
JUNIOR YEAR

3 Education 141

3 Education 141

3 Education 141

3 Education 141

3 Education 141

3 Education 141 .....  .....  .....  .....  ..... 3 .....  .....  .....  .....  ..... 3 .....  .....  .....  .....  ..... 3 .....  .....  .....  .....  ..... 3 .....  .....  .....  .....  ..... 3 .....  .....  .....  .....  ..... 3

2 Education 153

2 Education 153

2 Education 153

2 Education 153

2 Education 153 .....  .....  .....  ..... 3 .....  .....  .....  ..... 3 .....  .....  .....  ..... 3 .....  .....  .....  ..... 3 .....  .....  .....  ..... 3

3 Art 63

3 Art 63

3 Art 63

3 Art 63

3 Art 63 .....  .....  ..... 3 .....  .....  ..... 3 .....  .....  ..... 3 .....  .....  ..... 3 .....  .....  ..... 3

3 Art 133 b

3 Art 133 b

3 Art 133 b

3 Art 133 b

3 Art 133 b .....  ..... 3 .....  ..... 3 .....  ..... 3 .....  ..... 3 .....  ..... 3
Art 125
Art 125
Art 125
Art 125
Art 125 ..... 2 ..... 2 ..... 2 ..... 2 ..... 2
1-2 Electives (Art)
1-2 Electives (Art)
1-2 Electives (Art)
1-2 Electives (Art)
1-2 Electives (Art) ..... $2-3$ ..... $2-3$ ..... $2-3$ ..... $2-3$ ..... $2-3$
3 Education ${ }^{156}$ ..... 5
3 Electives ..... 10-1210-11
3 Education 54 (Psych.) ..... 3
3 Social Studies ..... 3
Art 52 ..... 3
Art 75 b ..... 3
Physical Education ..... 1
orDramatic Art 92.2
$-$ Second Semester
3-4 Math. or Science ..... 3 ..... 3-4
Wocial Studies ..... 3
Physical Educatiòn ..... 1
Math. 1 ..... 2
Foreign Language ..... 3
Business Administration if b ..... 2
SOPHOMORE YEAR

JUNIOR YEAR

| Business Administration 52 a | 3 | Business Administration 52 b |
| :---: | :---: | :---: |
| *Education 101 | 3 | * Education 102 |
| Education 141 | 3 | Education 153 |
| Education 107 | $\pm$ | Business Administration 53 b |
| Business Administration 53 a | 3 | Minor and Electives |
| Minor and Electives. | 3 |  |

SENIOR YEAR
Teachers' Course (Educ. 155 g) . 3 Business Administration 107 a
Minor and Electives .9-1 9-11 Business Administration 107 b ..... 5

[^14]
## COLLEGE OF EDUCATION

## CURRICULUM FOR STUDENTS PREPARING TO TEACH INDUSTRIAL ARTS <br> (Leading to the degree of Bachelor of Science in Industrial Arts Education.)

## FRESHMAN YEAR

First Semester Second Semester
English 1 a
Mathematics, Algebra
Engineering $1 L^{\prime}$
Shop 10 L
Chemistry $: L$
Elective
P. E.

English 64a
Mathematics, Elective
SOPHOMORE YEAR

Psychology $5^{1}$
Physics 1 aL
Shop 64 L
P. E.

Education 141
Engineering 55 L
JUNIOR YEAR

Shop 105 L
3
E. E. $\log \mathrm{aL}$

3 M. E. $5^{6}$ L 3
Shop 104 L
3
Economics 105
Education 107*

Education ${ }^{115}$
Shop 107 L
Elective: Technical
Elective: General

SENIOR YEAR
E. E. $\log$ bL 3

Elective: Social Science-History 51 ab , Sociology 115 ,
Education 105 a or b
3

3 Education $15^{6}$ 5
3 Shop $109 \mathrm{~L} \quad .3$
6 Elective: Technical $\quad \therefore \quad 3$
3 Elective: Sorial Science-
History $5^{1} \mathrm{ab}$, Sociology 115 , Education 105 a or b 3
*Not required of students who expect to teach in other states.

## DEPARTMENTS OF INSTRUCTION

## COLLEGE OF EDUCATION

Courses numbering: from 1-50, lower division, normally open to freshmen; from 51-100, lower division, normally open to sophomores; from 101-200, upper division, normally open to juniors, seniors, and graduates; 201-300, open to graduates only. Graduate credit for courses listed is allowed at the discretion of the Graduate Committee.

Symbols used in course descriptions: ab or cd-course offered throughout two semesters; L-part of the course is laboratory work; F -course is given during field session; SS-course offered in eight weeks' summer session only; Yr-course offered throughout
two semesters and credit for a single semester's work is suspended until the entire course is completed; I-course offered in first semester only; II-course offered in second semester only; *-course open to General College students; $\dagger$-course offered for General College credit only; ( )-credit value for each course for each semester; [ ]-former course number or title.

A schedule of course offerings, including hours of meeting, is issued at the opening of each session. The University reserves the right to cancel any listed course or to make a substitution in instructors when necessary.

## EDUCATION

# Professors Nanninga (Dean), Diefendorf, Tireman, Fixley, Clauve, Reid; Associate Professors Dubois, Moyers, White; Instructor Israel. 

## GENERAL EDUCATION

72. Health Education. (2) Health instruction in elemen-
tary schools.
73. Social Arts. (2) SS Standards of social behavior.
74. History of Education in Europe. (3) I I Moyers
75. History and Philosophy of American Education. (3) II Moyers
105 ab. Adult Education. (3-3) Origin, development, phil-osophy, objectives, methods, and materials.
76. Problems of Education in New Mexico. (2) New Mexico school system.109. Educational Sociology. (3) I Sociological aspects ofschool problems.
77. The Use of Audio-Visual Aids in Teaching. (2) Chief attention will be given to the aims and techniques of Audio- visual aids in the classroom; illustrative use of films; types of aids explored.
78. Current Educational Problems. (2) ..... Staff
79. Educational and Vocational Guidance. ciples and methods. ..... (3) 'I Prin-
Fixley
80. Professional Adjuncts. (1) Attention to personalitytraits, the interview and written application, effective speech,personal budget, community relationships. For juniors andseniors only. . (Not offered in 1946-47.)Fixley
81. Problems. (1-3) ..... Staff
251 ab . Problems. (1-3 each semester) Graduate Staff
82. Thesis. (3-6) ..... Graduate Staff

## COLLEGE OF EDUCATION

## ELEMENTARY EDUCATION

17. [91, 117] Arts and Crafts for Elementary Schools. (3) Industrial needs of the child; art concerned with food, clothing, shelter, records, utensils, tools, and machines. Crafts are demonstrated and executed; problems in clay, weaving, textiles, papier mache, toy-making, booklet making, and expression through miscellaneous crafts materials. Designed to meet the State Department of Education requirement in arts and crafts.

Del Dosso
42. Classroom Organization and Management. (3) SS

Reid
52. Teaching Englisí to Non-English Speaking Children. (2) SS For pre-first and first grade teachers.
61. Teaching Reading in the Primary Grades. (3) SS
Methods and materials in pre-first to the fourth grades.
Tireman
62. Teaching of Language, Social Studies, and Arithmetic. (3) SS Materials and methods in grades one to four.

Tireman
64. Practice Teaching in Elementary Grades. (4) SS Prerequisites: an observation course and 61. Co-requisite: 62.

Tireman
93 ab . Music Education. (2-2) a: Music fundamentals for elementary teachers; b: methods and materials for elementary grades.
120. Children's Literature. (2) Materials and techniques
of teaching.
121. Methods of Teaching Pre-first and Primary Reading. (3)

Staff
122. Methods of Teaching English and Social Studies. (3) Supervision of language, and social studies. If Education 61 has been taken, consult instructor before enrolling in this course.

Tireman
123. Methods of Teaching Reading in the Intermediate Grades. (3) Supervision of reading in the fourth, fifth, and sixth grades. Diagnosis and remedial work. Prerequisite: 61 or 122.

Tireman
124. Methods of Teaching Elementary Science. (3) Tireman
128. The Curriculum in Art Education. (3) Curriculum building, development of significant units for teaching art, analysis and evaluation of courses of study, and examination of available tests in the arts.

Del Dosso

## COLLEGE OF EDUCATION

129 k. Socral Studies Curriculum Workshop. (1-5) Cur-riculum units in the social studies field. The student mustspend in the workshop two hours per week for one semesterper hour of credit earned. Enrollment is limited to thosewho have over 60 hours and are teaching or have had teach-ing experience.
135. Methods of Teaching Arithmetic. ..... (2)
Moyers
136. Practice Teaching in Elementary Grades. (5) Prere quisites: an observation course, 121, 122, and 123. 90 clock hours minimum of practice teaching. Tireman
221. Investigations in Primary Language Arts. ..... (2)
Graduate Staff
222. Investigations in Intermediate Language Arts. ..... (2)
Graduate Staff
232. Investigations in Social Studies. ..... (2)
Graduate Staff
233. Philosophy of the Activity Program. ..... (2)
Graduate Staff
(2)Moyers
237. The Elementary School Curriculum ..... (2)
Graduate Staff
238. Supervision of the Elementary School. ..... (3)Graduate Staff
251 ab . Problems. (1-3 each semester) Graduate Staff
Tireman
252. Bilingual Education. ..... (2)

Graduate Staff
274. Study of Education Classes.
300. Thesis. (3-6)Graduate Staff
SECONDARY EDUCATION
141. Principles of Secondary Education (3) Diefendorf
147. Extra-Curricular Activities in the Secondary School.(3) The guiding principles of pupil participation in theextra-curricular life of the junior and senior high school

Fixley
153. High School Methods. (3) Prerequisite: Psychology 54.
155. The Teaching of High School Subjectis. All specific methods courses are listed under the general number, Education 155, with the designating subscripts as indicated. These courses carry credit in education only, not in the subject matter departments. Required of students following secondary curricula. Prerequisite: 153.
a. The Teaching of Art in High School. ..... (3)
b. The Teaching of Biology in High School. (3)
c. The Teaching of English in High School. ..... (3)
Prerequisite: English lab. ..... Keleher
d. The Teaching of Home Economics in High School.(3)
e. The Teaching of Mathematics in High School. ..... (3)
f. The Teaching of Music in High School. ..... (3) (Of- fered only on demand.)
g. The Teaching of Commercial Subjects in High School. ..... (3)
h. The Teaching of Sciences in High School. ..... (3)
k. The Teaching of Social Studies in High School. (3)
m. The Teaching of Spanish in High School.
(Offered in alternate years.)
n. The Teaching of Reading in the Junior High School. ..... (2)
p. The Teaching of Physical Education in High School.
156. Practice Teaching in High School. (5) Observation and teaching in Albuquerque High School. Prerequisite: 153. 1 lecture, 5 hrs. practice teaching a week. Diefendorf
158. High School Supervision. ..... (3)
Moyers
159. Directed Study. (3) Theory and practice of directing pupil study. Diefendorf
241. Seminar. in Secondary Education. (2) Diefendorf
242. High School Curriculum. (3) Trends and practical programs. Diefendorf
244. [144] The Junior High School. (2) History of the junior high school movement and some of the problems arising from its organization and administration. Diefendorf
251 ab. Problems. ( $1-9$ each semester) Graduate Staff
254. Health Education Methods for Secondary Schoolls. ..... SS
270. Diagnosis in Physical and Health Education. ..... SS
272. Administration of Health Education. ..... SS
300. Thesis. ..... (3-6)Graduate Staff

## COLLEGE OF EDUCATION

## EDUCATIONAL ADMINISTRATION

> 164. City School Administration. (3) I Required of all administrative majors. Educational, financial, and administrative principles.
166. The Pringipal and His School. (3) Organization and administration, and supervision of a single school. (Not offered in 1946-47.)
Fixley
171. Problems of the Teaching Profession. (3) I The
principles of educational administration and organization as
applied to the duties and responsibilities of the classroom
teacher.
Nanninga
201 ab. Research Methods in Education. (2-2) Required
of all candidates for a graduate degree in education. Fixley
206. Seminar in Educational Administration. (2) II Advanced reading and problems in educational administration.

Fixley
251 ab. Problems. (1-3 each semester.) Graduate Staff 261. School Law. (3) II Legislation and court decisions,
with special reference to New Mexico school law. Fixley
263. State School Administration. (3) II State school systems. Federal and state policy, and forms of control.

Nanninga
268. Public School Finance. (3) I Special attention to
New Mexico.
277. School Buildings and Equipment. (3) I Problems,
standards, committee reports, field trips.
300. Thesis. (3-6)

Graduate Staff.

## EDUCATIONAL PSYCHOLOGY

*54. Educational Psychology. (3) II' An introductory
course. Limited to sophomores. Prerequisite: Psychology
1 abL or 51.
181. Educational Tests and Statistics. (3) Prerequisite:
Psychology l abL or 51.
183. Educational Psychology. (3) I Advanced course.
Prerequisite: Psychology 1 abL or 51.
185. Mental Measurements. (3) I Prerequisite: Psychology I abl or 51.

DuBois
187. Child Psychology. (3) II The principles of human behavior in infancy, childhood, and adolescence. Prerequisite: Psychology 1 abL or 51 . DuBois
190 L. Clinical Psychology. (3) II Clinical practice in the administration of psychological tests; round table discussion of problem cases. Prerequisite: Psychology 1 abL or 51, and 185. Seniors or graduate students may take 185 at the same.time as 190 L .1 lecture, 4 hrs. lab.' DuBois
251. Problems. (2-3)
300. Thesis. (4-6)

Graduate Staff
Graduate Staff

## HOME ECONOMICS

Professor Simpson (Head); Assistant Professors Moser, Schroeder; Supervisor of Dining Hall, Lingo.

## GROUP REQUIREMENTS

Home Economics 53 aL and 53 bL count toward Science and Mathematics (Group IV).

## MAJOR STUDY

See curriculum under "College of Education." For requirements for a major in dietetics in the College of Arts and Sciences, consult the admissions officer or the dean of the college.

## MINOR STUDY

Home Economics 1, 2L and 12 hours in courses numbered above 50 , or 20 hours specified by the head of the department.

Note: The College of Education curriculum for students preparing to teach home economics is approved by the State Department of Vocational Education for the training of teachers of homemaking who desire to teach in the federally-aided schools of the state.
*1. Homemaking. . (3) Clothing selection-from the standpoint of artistic, economic, and hygienic standards. Moser
*2 L. Homemaking. (4) Food preparation and elementary nutrition; child development; personal problems. 1 lecture, 4 hrs. lab.

Simpson, Schroeder
58 aL . Food for the Family Group. (3-3) Selection, preparation, and service of family meals. 1 lecture, 4 hrs. lab. Staff
63 abL. Dressmaking. (3-3) a: Pattern study; construction of clothing emphasizing fitting and techniques of finishing. Open to elective. b: Adaptation of patterns; problems in designing. Prerequisites: 1 or permission of instructor: 1 lecture, 4 hrs. lab.


## COLLEGE OF EDUCATION

104. Nutrition. (2) Primarily for physical education majors. The relation of nutrition to the health program; normal nutrition.
107 L. Advanced Foods. (3) I Food economics; household marketing; food laws; history of cookery. Prerequisites: Home Economics 53 bL and Chemistry 40 abl. 1 lecture, 4 hrs. lab.
Simpson
105. Home Furnishings. (3) II
Moser

106. Family Relationships. (3) II Schroeder
107. Household Management. (3) II Schroeder
133 L . Home Management House. (3) II Six weeks' resi-
dence required. Prerequisite: 132 .
138 L. Child Care and Development. (4) I Observation and assistance in the nursery school. 3 lectures, 2 hrs lab.
Schroeder
140 L . Nursery School Methods and Administration. (3)
Observation and practical experience in guidance of children
in nursery school, including an investigation of play mate-
rials, literature, music, equipment, records, housing, and
budget. 1 lecture, $4 \mathrm{hrs}$. lab.
108. Home Economics Seminar. (1-2) II Staff

The following courses are primarily for students who wish to become dietitians.

150 L. Large Quantity Cookery. (3) Standard methods of food production in quantity; cost accounting; standardization of formulas; menu planning and table service. Prerequisites: $107 \mathrm{~L}, 127 \mathrm{~L} .1$ lecture, 4 hrs. lab. Lingo
151. Diet in Disease. (3) A study of the adaptation of diet in the treatment of impaired digestive and metabolic conditions. Prerequisites: $107 \mathrm{~L}, 127 \mathrm{~L}$. Simpson
157 L. Quantity Purchasing. (3) Factors influencing quality, grade, and cost of food products. Current procedures in large quantity purchasing. Prerequisites: 107 L , $127 \mathrm{~L}, 150 \mathrm{~L}$. 1 lecture, 4 hrs. lab.

Lingo
159. Institutional Management. (3) Principles of scientific management applied to institutional administration. Experience in the food service and housing facilities on the campus. Prerequisites: $107 \mathrm{~L}, 132,157 \mathrm{~L}$. Lingo

## COLLEGE OF EDUCATION

## DIVISION OF PHYSICAL EDUCATION, HEALTH

Associate Professor White (Head); University Physician, Dr. Harris.

Physical Education for Men: Professors Johnson (Head), Shipkey; Associate Professor White; Instructors Zielasko, Barnes, Petrol, Dooley, Clements.

Physical Education for Women: Assistant Professor Gugisberg (Acting Head); Instructor Harrison.
All regularly enrolled undergraduate students under thirty years of age must complete 4 semester hours in regular activity courses in physical education. Not more than one hour may be earned in a semester except by physical education majors and minors. Not more than four semester hours of required physical education may count toward a degree. Men may substitute participation in major sports for required physical education for that part of the semester during which they are actively engaged in a sport, provided that they are enrolled in the section designated by the department head. Physical education majors and minors may not substitute their participation in sports for the required physical education classes.

The instructor in each course should be consulted concerning proper clothing or uniform. Regulation blue uniforms are required for women; regulation grey uniforms are required for men.

There is a special fee of $\$ 20.00$ per semester for Equitation. MAJOR STUDY

A major in physical education is offered in the College of Education only. Students are required to complete all courses listed in the curriculum (see pp. 143, 144). Men must participate in at least one major sport.

MINOR STUDY
A minor in physical education is offered in the College of Education only. Men students are required to complete all the courses listed in one of the curricula (see p. 143) and to participate in a major or minor sport. Women students are required to complete 12 hours (not including required physical education courses) as recommended by the department head.
*Activity Courses for Men and Women. (1-1) 3 class hours per week.
Men: Sections 1 through 7. The following courses for men will consist of exercises and sports designed
to get the participants into the best possible physical condition:
Semester I: conditioning and coördination exercises; swimming; tumbling, gymnastics; apparatus; touch football; speedball; basketball; combatives; seasonal recreational sports and games. Staff
Semester II: basketball; volleyball; tennis; track and field; softball; seasonal recreational sports and games. Staff
Secirion 8. (Both semesters) Major and minor sports participation.

Staff
Women: Section 1. Rhythms. Harrison
Section 2. Swimming, archery, recreational games.
Gugisberg
Section 5. Tennis, volleyball, badminton.
Gugisberg
Section 6. Swimming, tennis, recreational games. I Staff
Section 9. Plays and games, archery. Gugisberg
Section 14. Swimming, speedball, tumbling. I Harrison
Section 15. Basketball, soccer, softball. II Harrison
Section 18. Folk dancing. I Harrison
Section 20. Tap and Clog. Staff
Section 21. American country dances. II Harrison
Section 23. Fencing, beginning. (Not offered in 1946-47.)

Staff
Section 34. Swimming, intermediate.' SS Harrison
Men and Women:
Note: Golf and equitation for men may be chosen only after satisfying the requirements of the regular physical education activity courses, or by those classified as restricted cases by the University physician.
$\ddagger$ SECTION 25 ab. $\begin{array}{r}\text { Equitation, for beginners and inter- } \\ \text { mediates. }\end{array} \begin{array}{r}\text { Special Fee. }\end{array}$
$\ddagger$ Deoley the University physician.
Section 36. Recreational games. SS GugisbergSection 37. Swimming, advanced, and lifesaving. SSHarrison, Barnes
Academic Courses
*22 L. Theory and Practice of Basketball. (Men) ..... (2)I 2 lectures, 2 hrs. lab.Clements
*40 L. Gymnastic Technique and Practice. (Men) ..... (2)I Fundamental techniques of gymnastics and athletic activi-ties, field ball, games and aquatics, apparatus, gymnastics,tumbling. 2 lectures, 2 hrs. lab. Zielasko
*41 L. Sports Technique and Practice. (Men) II Funda-mental techniques of additional gymnastics and athletic ac-tivities, diamond and court ball games and individual sports,gymnastic drills, games, combatives. Prerequisite: 40 L .2 lectures, 2 hrs. lab. Petrol
*61 L. Theory and Practice of Football. (Men) (2) I 2 lectures, 2 hrs. lab. Shipkey
*62 L. Theory and Practice of Track and Field Athleticsand of Baseball.. (Men) (2). II 2 lectures, 2 hrs. lab.Johnson
65. Sports Technique and Practice. (Women) (2) II Softball, basketball, soccer, speedball, volleyball, discussion of game techniques, rules, equipment, officiating. Prere- quisite: activity course in each sport. 1 lecture, 3 hrs. lab. Harrison
72. Health Education. (2) (Same as Education 72.)White
101. Principles, History, Methods of Physical Education. (Women) (3) I Gugisberg
104. Nutrition. (2) (Same as Home Economics 104.)
104 L. Human Anatomy and Kinesiology. (4) Prerequi-sites: Biology 1 L and 36. (Not offered in 1946-47.). 3lectures, 2 hrs. lab. Dr. Harris105 ab . Recreational Leadership. (Women) (9-3) (Anelective course for men.)Harrison
107. Teaching Methods in Folk Dancing. (2) II Prere-quisite: activity course in folk dancing. I lecture, 3 hrs. lab.
Harrison
123. 'The Teaching of Physical Education in the Elementary Grades. (Women) [Organization of Plays and Games by Ages.] (2) II (An elective course for men.) 1 lecture, 3 hrs. lab.
Gugisberg

## COLLEGE OF EDUCATION

135 L. Corrective Physical Education. (2) I Abnormalities of spine, feet, and posture. Prerequisites: 104 L and 167.

Johnson
136. Theory of Coaching, Strategy, and Tactics. (Men) (2) I Prerequisites: $22 \mathrm{~L}, 61 \mathrm{~L}, 62 \mathrm{~L}$, and Home Economics 104.

Johnson
155. Sports Technique and Practice. (Women) (2) I Swimming, archery, tennis, recreational games. Prerequisite: activity course in each sport. 1 lecture, 3 hrs. lab.

Gugisberg
155 p. The Teaching of Physical Education in High School. (3) (Same as Education 155 p.)
156. Dance Theory. (Women) (2) II History and principles of dance form. Methods of directing various types of dancing in an educational program. 1 lecture, 3 hrs lab.

Harrison
161. First Aid. (2) I Emergency treatment for shock and injuries.

Clements
162 L. Theory and Practice of Intramural Athletics and Community Recreation. (Men) (3) II 2 lectures, 2 hrs. lab.

Zielasko
167. Physićal Diagnosis and Tests and Measurements. (3) II Technique of determining physical fitness for participation in athletics.

Johnson
172. Organization and Administration of Physical EdugaTION. (3) II Johnson, Gugisberg
183 abL. Practice Coaching. (Men) (2-2) 2 lectures, 2 hrs. lab.

White and Staff
185. Administration of a Health Program. (2) II Personal and community hygiene. Gugisberg, Clements
186. Problem - Methods in Physical Education. (Men) (2) II White and Staff

## COLLEGE OF FINE ARTS

Thee College of Fine Arts is established for the following purposes: (1) to stimulate a greater interest in the arts, both fine and applied; (2) to offer those who wish to specialize in any of the fields of art an opportunity to do so; (3) to coördinate more efficiently the work in dramatics, music, and painting and design; and (4) to make a better use of the unique facilities afforded by the state of New Mexico for the study and practice of the arts.

## DEPARTMENTS AND DEGREES OFFERED

As constituted, the departments of this college are: Art (Painting and Design), Dramatic Art, and Music.

Courses leading to the degree of Bachelor of Fine Arts in Dramatic Art, Music, and Art are offered; in the combined curriculum, successful candidates will receive the degree of Bachelor of Fine Arts.

## GRADUATION REQUIREMENTS

Candidates for degrees must complete all requirements outlined in the respective curricula. One hundred hours must be of C grade or better; and, in addition, students transferred from other institutions must make a grade of C or better in threefourths of the hours earned in the University of New Mexico.

A course in the Department of Naval Science and Tactics may be substituted during each semester of the school year for the course in physical education. In addition, the Naval Science course may be substituted in each of the curricula for courses as prescribed by the dean.

## CURRICULA

CURRICULUM IN ART-PAINTING AND DESIGN
[Leading to the degree of Bachelor of Fine Arts in Art (Painting and Design.) Hours required for graduation, 132.]

FRESHMAN YEAR
English 1 a
Foreign Language Semester
Art 1 a
Art 45
Elective
P. E.

|  | Second Semester |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 3 | English 1 b | 2 | 3 |  |
| 3. | Foreign Language |  | 3 |  |
| 3 | Art 1 b |  | 3 |  |
| 4 | Art 45 |  | 4 | $\checkmark$ |
| 2 | Art 32 |  | 2 |  |
| , | P. E. | - | 1 |  |



FINE ARTS BUILDING

SOPHOMORE YEAR


Requirements in drawing and painting may be taken in the Field School of Art at Taos, which is recommended for at least one summer.

Students are advised to choose their electives in fields which will broaden the scope of their education.

Students who so elect, in the Junior and Senior year, may substitute work in applied art (Art 25, 32, 64, 71, 72, 74, 75, 133, 167, 168, 171, and 175) for life drawing and painting (Art 151 and 163).

## CURRICULUM IN DRAMATIC ART

(Leading to the degree of Bachslor of Fine Arts in Dramatic Art. Hours required for graduation, 132.)

FRESHMAN YEAR

First Semester
English 1 a
Foreign Language
Drama 10a
Drama 1 a
Drama 3oa
Physical Education

Second Semester
3 English 1 b 3

| English 1 b | $\mathbf{3}$ |
| :--- | :--- |
| Foreign Language | 3 |

Drama lob 2
Drama 1 b 3
Drama 30 b 3
1 Physical Education
SOPHOMORE YEAR


## COLLEGE OF FINE ARTS



The student is advised to choose certain of his electives from fields closely allied to dramatic art, such as literature, either English or foreign, courses in Greek, Spanish, and French drama, or drama beginning with Ibsen from cultural subjects in the Department of Music; and from courses in design in the Department of Art. It is strongly urged also that the student broaden his field of study by choosing electives from the curricula of other colleges of the University, especially courses in the social sciences, so as to gain better insight into the problems of contemporary society.

In physical education, the student is advised to take as much dancing and fencing as he can secure.

In addition to the planned course of study, students of the department participate in all phases of production of three-act and one-act plays. So far as is possible, this work is correlated to class work.

In lieu of courses not offered during certain terms, substitution made with the advice of the head of the department will be accepted.
CURRICULA IN MUSIC
(Leading to the degree of Bachelor of Fine Arts in Music.) Four major fields of concentration are offered, namely: Theory; Applied Music (Instrumental); Applied Music (Voice); and Music Literature. Hours required for graduation, 130.

Field of Concentration-Theory.
FRESHMAN YEAR


## SOPHOMORE YEAR

| Music 95 a (Counterpoint) | 3 | Music 95 b (Counterpoint) | $\mathbf{3}$ |
| :--- | :--- | :--- | :--- | :--- |
| Music 51 a (Applied) | 2 | Music 51 b (Applied) | 2 |
| Music 55 (Orchêstral Instru.) | 2 | Music 55 b (Orchestral Instru.) | 2 |
| English Elective | 3 | English Elective |  |
| Modern Language Elective | 3 | Modern Language Elective: | 3 |
| Physical Education | 1 | Physical Education | 3 |
| Mathematics or Science Electives | 3 | Mathematics or Science Electives | $\mathbf{3}$ |
|  | - |  | 17 |

## JUNIOR YEAR

| Music 153 a (Orchestration) | 2 | Music 153 b (Orchestration) |
| :---: | :---: | :---: |
| Music 152 a (Form and Analysis) | 2 | Music 152 b (Form and Analysis) |
| Ensemble * $\dagger$ | 1 | Ensemble * $\dagger$ 为 $\because \cdot$ |
| Music 101 a (Applied) | 2 | Music 101 b (Applied) |
| Modern Language Elective | 3 | Modern Language Elective: |
| Electives | 5 | Electives |
|  | 15 |  |


| SENIOR YEAR |  |  |  |
| :---: | :---: | :---: | :---: |
| Music 1go a (Composition) | 2 | Music 190 b (Composition) | 2 |
| Music 157 a (Conducting) | 2 | Music 157 b . (Conducting) | 2 |
| Historical Music Literature $\ddagger$ | 2 | Historical Music Literature $\ddagger$ | 2 |
| Ensemble * $\dagger$ | 1 | Ensemble * $\dagger$ | 1 |
| Music 151 a (Applied) | 2 | Music 151 b (Applied). | 2 |
| Electives | 8 | Electives | 8 |
| $\because$ | 17. |  | 17. |

## Field of Concentration-Applied Music (Instrumental) FRESHMAN YEAR

| First Semester |  | Second Semester |
| :---: | :---: | :---: |
| Music 5a (Harmony) | 3 | Music 5 b (Harmony) 3 |
| Music 36 a (History) | 3 | Music $3^{6 \mathrm{~b}}$ (History) : $\quad 3$ |
| Music 1 a (Applied) | 4 | Music 1 b (Applied) $\quad \therefore 4$ |
| English 1 a (English Composition) | 3 | English ib (English Composition) 3 |
| Physical Education | 1 | Physical Education |
| Social Science | 3 | Social Science |

SOPHOMORE YEAR

| Music 95 a (Counterpoint) | 3 | Music 95 b (Counterpoint) | 3 |
| :---: | :---: | :---: | :---: |
| Music 51 a (Applied) | 2 | Music 51 b (Applied) | 2 |
| Ensemble * $\dagger$ : | 1 | Ensemble * $\dagger$. . |  |
| Music 55 a (Orchestral Instru.) | 2 | Music 55 b (Orchestral Instru.) | 2 |
| Modern Language Elective | 3 | Modern Language Elective | 3 |
| Physical Education | 1 | Physical Education |  |
| Mathematics or Science | 3 | Mathematics or Science | 9 |
|  | 15 |  | 15 |

*To be selected from Music $4^{1} \mathrm{ab}, 43 \mathrm{ab}, 23 \mathrm{ab}, 21 \mathrm{ab}, 87 \mathrm{ab}$. †To be selected from Music $141 \mathrm{ab}, 143 \mathrm{ab}, 12 \mathrm{~S}^{\mathrm{ab}}, 121 \mathrm{ab}, 191 \mathrm{ab}$. $\ddagger$ To be selected from Music 83, 171, 172, 180; $181,182,184,193:$ :

## COLLEGE OF FINE ARTS



## Field of Concentration-Applied Music (Vocal)

FRESHMAN YEAR


## SOPHOMORE YEAR

| Music 95 a (Counterpoint) | 3 | Music 95 b (Counterpoint) | 3 |
| :--- | :--- | :--- | :--- |
| Music 51 a (Voice) | 4 | Music 51 b (Voice) | 4 |
| Music 69 a (Piano) | 2 | Music 69 b (Piano) | 2 |
| Ensemble * $\dagger$ | 1 | Ensemble * $\dagger$ | 1 |
| Music 36a (History) | 3 | Music 36 b (History) | 3 |
| French or Cerman | 3 | French or German | 3 |
| Physical Education | 1 | Physical Education | 1 |
|  | - |  | - |
|  | 17 |  | 17 |

Music 101 a (Voice)
Ensemble $\dagger$
Historical Music Literature $\ddagger$
French or German
English Elective
Mathematics or Science

## JUNIOR YEAR

Music 101 a (Voice)
Music 1 oi b (Voice) 4
Ensemble ${ }^{*}+\quad 4$
$\begin{array}{lll}1 & \text { Ensemble }{ }^{*} \dagger & 1 \\ 2 & \text { Historical Music Literature } \ddagger & 2\end{array}$
French or German 3 French or German 3
Mathematics or Science Mathematics or Science
3 Mathematics or Science 3
16 16
*To be selected from Music $41 \mathrm{ab}, 43 \mathrm{ab}, 23 \mathrm{ab}, 21 \mathrm{ab}, 37 \mathrm{ab}$. †To be selected from Music $141 \mathrm{ab}, 143 \mathrm{ab}, 123 \mathrm{ab}, 121 \mathrm{ab}, 181 \mathrm{ab}$. $\ddagger$ To be selected from Music 171, 172, 180, 181, 182, 184; 199.

## COLLEGE OF FINE ARTS

| SENIOR YEAR |  |  |  |
| :---: | :---: | :---: | :---: |
| Music 151 a (Voice) | 4 | Music 151 b (Voice) | 4 |
| Music 157 d (Condiscting) | 2 | Music 157 b (Conducting) | 2 |
| Music 189 a (Vocal Coaching) | 1 | Music 189 b (Vocal Coaching) | 1 |
| Music 152 a (Form and Analysis) | 2 | Music 152 b (Form and Analysis) | 2 |
| Other Electives | 6 | Other Electives | 6 |
|  | - |  | - |
|  | 15 |  | 15 |

## Field of Concentration-Music Literature

## FRESHMAN YEAR

First Semester

| Music 5a (Harmony) | 3 |
| :--- | ---: |
| Music 36 a (History) | 3 |
| Music 1 a (Applied) | 2 |
| Ensemble t | 1 |
| English 1 a (English Composition) | 3 |
| Physical Education | 1 |
| Social Science | 3 |
|  | 16 |

Second Semester

SOPHOMORE YEAR

| Music 95 a (Connterpoint) | 3 | Music 95b (Counterpoint) | 3 |
| :--- | :---: | :--- | :--- |
| Music 51 a (Applied) | 2 | Music 51 b (Applied) | 2 |
| Music 55 a (Orchestral Instru.) | 2 | Music 55 (Orchestral Instru.) | 2 |
| English Electives | 3 | English Electives | 3 |
| Modern Language Electives | 3 | Modern Language Elective | 3 |
| Physical Education | 1 | Physical Education | 1 |
| Mathematics or Science | 3 | Mathematics or Science | $\mathbf{3}$ |
|  | - |  | - |
|  | 17 |  | 17 |

## JUNIOR YEAR

| Historical Music Literature $\ddagger$ | 2 | Historical Music Literature $\ddagger$ | 2 |
| :---: | :---: | :---: | :---: |
| Music 152 a (Form Analysis and |  | Music 152 b (Form Analysis and |  |
| Score Reading) | 2 | Score Reading) | 2 |
| Ensemble * $\dagger$ | 1 | Ensemble * $\dagger$ | 1 |
| Music 101 a (Applied) | 2 | Music 101 b (Applied) | 2 |
| Modern Language Elective | 8 | Modern Language Elective | 5 |
| Electives | 5 | Electives | 3 |
|  | 15 |  | 15 |

SENIOR YEAR

| Music 157a (Conducting) | 2 | Music 157 b (Conducting) | 2 |
| :---: | :---: | :---: | :---: |
| Historical Music Literature $\ddagger$ | 4 | Historical Music Literature $\ddagger$ | 4 |
| Ensemble * $\dagger$ | 1 | Ensemble * $\dagger$ | 1 |
| Music 151 a (Applied) | 2 | Music 151 b (Applied) | 2 |
| Electives | 8 | Electives | 8 |
|  | - |  |  |
|  | 17 |  | 17 |

 $\dagger$ To be selected from Music $141 \mathrm{ab}, 143 \mathrm{ab}, 123 \mathrm{ab}, 121 \mathrm{ab}, 191 \mathrm{ab}$. $\ddagger$ To be selected from Music 171, 172, 180, 181, 182, 184, 198 .

## COLLEGE OF FINE ARTS

Students are advised to choose a part of their electives from fields such as literature, English or foreign, social science and mathematics and science, to the end of avoiding overspecialization in music. Students are advised to take History lab (Western Civilization) as a social science elective, concurrently with Music 36 ab (History of Music). Before graduation every candidate for the Bachelor's degree must demonstrate a degree of proficiency at the piano equivalent to that expected of students completing Music la (Piano).

Note: Students who are unable to pass an examination in Sight Singing and Ear Training 3 ab will find it necessary to readjust the order in which they take the above curricula in order to take Music 3 ab before Harmony 5 ab .

## COMBINED CURRICULUM IN FINE ARTS

(Leading to the degree of Bachelor of Fine Arts.) Hours required for graduation, 132, including:
(a) Group requirements as listed under College of Arts and Sciences, or under the College of Education,
(b) Four semester hours of physical education
(c) Major study or its equivalent in Art, Dramatic Art, or Music; and
(d) Minor study or its equivalent in Art, Dramatic Art, or Music (other than major field).
(A holder of the B.F.A. degree is eligible for certification as a teacher by the New Mexico State Board of Education if he has completed the requirements as stated in the Rules and Regulations governing such certification. The North Central Association requires approximately fifteen hours of courses in Education for approval of teachers employed in its member secondary schools.)

## PRE-OCCUPATIONAL THERAPY

Occupational Therapy is described as "any physical or mental activity prescribed by the physician and supervised by the trained therapist to aid in recovery from disease or injury."

The training of students in these activities, which consist of manual skills, educational pursuits, and pre-vocational training, as well as training in courses that are primarily directed towards the medical functions involved are the two main purposes of the pre-occupational therapy courses.

Pre-Professional. The Pre-Occupational Therapy course at the University of New Mexico covers a period of two years.

## COLLEGE OF: FINE ARIS

The University offers the following curriculum to equip the student with the basic academic and laboratory courses which will provide him with those prerequisites sought in the records of students applying to the accredited schools of Occupational Therapy. He will normally transfer to accredited schools of Occupational Therapy at the sophomore or junior level, although it is possible to enter these schools as an advanced standing student already possessing a degree.

The Philadelphia School of Occupational Therapy has established three or four scholarships a year for students from the University of New Mexico who have earned a degree in Fine Arts (a degree in Education with a major in a Fine Arts field is also acceptable).

Curriculum. The following curriculum for freshmen in preOccupational Therapy is suggested:

| First Semester | Second Semester |
| :---: | :---: |
| Psych. 1 ab (General) 3 | Psych. 1 bL (General) |
| Biology 1 L (General) 3 | Biology 2 L (General) |
| Art 1 a (Design) 3 | Art 75 a (Woodwork, leather, tin, |
| Chemistry 40 aL (Fundamentals- | etc.) |
| inorganic and organic, standard re- | Chem. 40 bL (Continuation) |
| quirement for modern work in | P. E. 161 (First Aid) |
| P. E., home economics, and nurs- |  |
| ing) 5 |  |
| Dramatic Art 3 a-Art of the Dance (Correctives through rhythm) 2 |  |
| The following courses on also offered: | pre-Occupational Therapy are |
| Educa. 115 (Educational and Vocational Guidance) | Psych. 103 (Abnormal Psychology) <br> Psych. 101 (Social Psychology-be- |
| Biology 36 (Human Physiology) 3 | havior of individuals as influ- |
| Biology 93 L (General Bacteriology | enced by human beings) <br> Psych. 187 (Child Psychology) |
| Art 45 per semester 1.4 | Art 71 ab (General Commercial |
| Art 32 (Lettering) 2 | Art) per semester |
| Psych. $19^{6}$ (Physiological Psychology | Art 175 (Latin-American Crafts) |
| -correlation of behavior and struc | (Weaving, textiles) |
| ture with emphasis on the nervous | Home Economics 104 (Nutrition) |
| system) 3 | Sociology 72 (Social Pathology) - |
| P. E. 104 L L (Human Anatomy and | diagnosis, remedial and preven- |
| Kinesiology) 4 | tion programs with functional |
| P. E. 195 L (Corrective P. E.) 2 | failures of society) |
| Art 193 ab (Crafts, Processes and | Art 74 ab (Photography) per sem. |
| Design) per semester 3 | A |

Specialized or Professional Schools. The curriculum prescribed by the American Medical Association sets up a minimum course length of 25 full-time calendar months totalling 60 semester hours. This curriculum includes a minimum of 30 hours
devoted to theoretical training, 30 semester hours of technical training, and 9 months of clinical affiliations. The training schools divide this curriculum into 3 academic years, and examination of the various approved schools' catalogs will reveal amplifications of, and additions to, these minimum course requirements.

Registration of Occupational Therapists is controlled by the American Occupational Therapy Association and is the professional certification of therapists, designating them as qualified to practice. O.T.R. after the name of a therapist is comparable to an R.N. or an M.D. Eligibility to the Registry is met by graduation from an accredited school and entrance is by examination.

For further information about the Pre-Occupational Therapy Program at the University of New Mexico, write: Mela Sedillo, Director, Pre-Occupational Therapy Program, Art Department, The University of New Mexico, Albuquerque.

COLLEGE OF FINE ARTS

## DEPARTMENTS OF INSTRUCTION

Courses numbering: from 1-50, lower division, normally open to freshmen; from 51-100, lower division, normally open to sophomores; from 101-200, upper division, normally open to juniors, seniors, and graduates; 201-300, open to graduates only. Graduate credit for courses listed is allowed at the discretion of the Graduate Committee.

Symbole used in course descriptions: ab or cd-course offered througnout two semesters; L-part of the course is laboratory work; F -course is given during field session; SS-course offered in eight weeks' summer session only; Yr-course offered throughout two semesters and credit for a single semester's work is suspended until the entire course is completed; I-course offered in first semester only; II-course offered in second semester only; *course open to General College students; $\dagger$-course offered for General College credit only; ( )-credit value for each course for each semester; [ ]-former course number or title.

A schedule of courses offered, including hours of meeting, is issued at the opening of each session. The University reserves the right to cancel any listed course or to make a substitution in instructors when necessary.

## ART (PAINTING AND DESIGN)

Professors Douglass (Head), Chapman; Associate Professors
Adams, Davey, Jonson, Randall; Assistant Professors Del
Dosso, Sedillo; Instructors Fach, Haas.

## MAJOR STUDY

41 hours including Art $1 \mathrm{ab}, 6$ hours of drawing or life (in Art 45, 51, or 95), 52 ab, 5 hours of applied art (in Art 32, 64, 71, $72,75,133,167,168,171$, or 175 ), 63 or 85 , and 152 a , with a total of 12 hours in courses numbered over 100 . One summer in the Field School of Art in Taos is recommended.

## MINOR STUDY

24 hours including Art 1 ab, 6 hours of drawing or life (in Art 45, 51, or 95), 5 hours of applied art (in Art 32, 64, 71, 72, $75,133,167,168,171$, or 175 ), and 52 ab . One summer in the Field School of Art in Taos is recommended.

FIELD SESSIONS
Each summer, field sessions in art are normally conducted at Taos and Santa Fe. Courses 45 F, 51 F, 63 F, $133 \mathrm{abF}, 151 \mathrm{~F}$, 163 F , and 191 abcdF are usually offered at Taos, all courses for 1, 2, or 3 hours credit (except $45 \mathrm{~F}, 1-4$ hours); courses 25 F , I25 F, and I91 abcdF are usually offered at Santa Fe.

PRE-OCCUPATIONAL THERAPY
See curriculum on page 167.
MATERIALS, STUDENT WORK, AND CREDIT
Students enrolling in art courses furnish their own materials, except certain studio equipment provided by the University.

All work when completed is under the control of the department until after the annual exhibition of student work. Each student may be required to leave with the department one or two pieces of original work to be added to the permanent collection.

Credit: for one semester hour of credit it is expected that the student do approximately 48 clock hours of work ( 3 clock hours per week through the semester), which includes time spent in recitation, preparation, and laboratory. If full laboratory hours are not assigned in the schedule, they will be arranged by the instructor.

In courses $45,51,63,85,151,163$, and 185 credit will be given for units of work undertaken and completed at the rate described above. Credit for $45,51,63$, and 85 will be suspended until a minimum of 3 credit hous $i$ is earned in any one of these courses.

A combined total of 3 credit hours earned in 45 and 51 will remove suspension.
*1 ab. Creative Design. (3-3) Experimentation and expression in line, color, and form; developing the imagination and feeling through a comprehension of space division. 6 class hrs. a week.

Del Dosso, Haas, Sedillo
*25. Indian Art. (2) I Development and symbolism of the decorative art of the Pueblos and other tribes. Students taking this work in Santa Fe may earn 4 hours. Chapman
*32. Lettering. (2) To develop facility and grace in the common forms of lettering. 4 class hrs. a week. Douglass
*45. [45 ab] Drawing. ( $1-4$ each semester to total of 8) The craftsmanship of drawing in various mediums from life, cast, and still life. Includes study of perspective.

Adams, Douglass
*51. [51 ab] Life Drawing. ( $1-3$ each semester to total of 6) Study from the human figure. Adams, Davey, Jonson
52 ab. History of Art. (3-3) Painting, sculpture, architecture, and the minor arts from prehistoric times through the Renaissance.

Haas, Sedillo
*63. [63 ab] Painting. (1-3. each semester to total of 6) Problems in technique with choice of medium. Prerequisites: 1 ab and 6 hrs. in 45,51 , or 95 . Adams, Davey, Jonson
64 ab. Frame Making. (1-1)
Staff
*71 ab. General Commercial Art. (3-3) Art in advertising. Various techniques and methods of reproduction. Optional work in caricature and cartooning. Prerequisites: $1 \mathrm{ab}, 32$, and 3 hrs. in 45,51 , or 95 . 6 class hrs. a week.

Douglass
72 ab . Industrial Design. (3-3) Work in three-dimensional design. 6 class hrs. a week. (Not offered in 1946-47.) Staff
74 ab . Рhotography. (3-3) Elementary use of cameras and dark-room equipment; composition. 2 class lirs. a week.

Fach
*75 ab. Latin American Crafts. (3-3) Use of the native raw materials of New Mexico. Revival of early Spanish designs and methods of Latin America. Of interest to teachers. Prerequisite: lab. 6 class hrs. a week.

Sedillo
81. Artistic Anatomy. (2) The skeleton and muscles of the human figure as related to life drawing. 4 class hrs. a week.

Haas
*85. [85 ab] Sculpture. (1-3 each semester to total of 6) Technical execution and anatomical study. Haas
*95. Sketch Class. (1 each semester to total of 4) Life sketching in choice of medium without criticism. Douglass, Haas
125. Indian Art. (2) Advanced work. Students taking this work in Santa Fe may earn 4 hours. Prerequisite: 25.

Chapman
131 abcd. Advanged Creative Design. (3-3) Development of technique through work and research in various design problems. Prerequisite: lab. 6 class hrs. a week. Jonson
133 ab . Crafts, Processes, and Design. (3-3) The different crafts; the relationship of construction and design. nf, est to teachers. Prerequisite: 1 ab .6 class hrs. a week. (Probably not offered in 1946-47.)

Del Dosso
151. Life Drawing. (1-3 each semester to total of 8) Prerequisites: 14 hrs. in 45, 51, or 95 . Adams, Davey, Jonson
152 ab. History of Art. (3-3) Survey, study, and discussion of painting and sculpture from the Renaissance to the present. Prerequisite: 52 ab .

Sedillo
153. History of Art-Contemporary Mexican Painters. (2) Lectures and discussions on the main figures of the art movement in Mexico.

Sedillo
163. [163 abcdef] Painting. (1-3 each semester to total of 18) Advanced work in composition in selected mediums. Prerequisite: 6 hrs. in 63.

Adams, Davey, Jonson
167. Costume Design. (3) I Problems in selecting and designing. Study of historic dress. Prerequisités: 1 ab , and 6 hrs. in drawing or life. 6 class hrs. a week.

Del Dosso
168. Home Arts. (3) II Principles of home furnishing. Interior sketches in color. Prerequisites: 1 ab and 6 hrs . drawing or life. 6 class hrs. a week. Del Dosso
171 ab. Advertising Problems. (2-3 each semester) Prerequisite: 71 ab .3 lectures, lab. periods arranged. Douglass
175. [175 abcd] Latin American Crafts. (1-3 each semester to total of 12) Advanced work in selected mediums. Mexican lacquer. Of interest to teachers. Prerequisite: 75 ab .6 class hrs. a week.

Sedillo
185. [185 abcd] Sculpture. (1-3 each semester to total of 12) Prerequisite: 6 hours in 85.

Staff
191 abcd. Special Problems. (1-3 each semester) Staff
195. [195 ab] Sketch Class. (l each semester to total of 4) Prerequisite: 4 hrs . in 45,51 , or 95 .

Douglass, Haas

## COLLEGE OF FINE ARTS

Offered only upon sufficient demand.
252 ab . History of Art. (2-2) A factual survey applied to the appreciation of art, the student specializing in the field he has chosen.
291. Problems. (1-3 each semester) Graduate Staff

Graduate Staff 295 ab . Seminar. (2-2) The practical study of aesthetics, art criticism, analysis. Graduate Staff
300. Thesis. (4-6) Graduate Staff

## DRAMATIC ART

Associate Professor Snapp (Head); Instructor Miller.
MAJOR STUDY
College of Fine Arts: see curriculum on p. 161.
College of Education: $1 \mathrm{ab}, 10 \mathrm{ab}, 30 \mathrm{ab}, 75 \mathrm{ab}, 90 \mathrm{ab}, 160 \mathrm{a}$, and 6 hrs. to be selected from English 141, 143, 147, 148, 149. Total 37 hrs .

## MINOR STUDY

$1 \mathrm{ab}, 10 \mathrm{ab}, 30 \mathrm{ab}, 90 \mathrm{ab}$, English 147 or 149. Total 25 hrs .
*1 ab. Reading and Speaking. (3-3) First principles of speech training and fundamentals of interpreting prose and poetry. Snapp
*10ab. Theatre History. (2-2) The Greek period to the present time. Special emphasis to be given to the drama of England.

Miller
30 ab . Stage Craft. (3-3) Methods, materials, and techniques of stage carpentry. Students construct scenery for season's productions. 3 lectures, 3 hrs lab. Miller
75 ab . Technical Production. (3-3) Analysis, planning, and construction of stage scenery and properties. Miller
85 ab . Acting Technique. (3-3) Methods of interpretation for both modern and historical productions. Prerequisite: 1 ab .

Snapp
90 ab . Rehearsal and Performance. (3-3) Elementary techniques of both actor and director. Analysis of plays for methods of interpreting in production.

Snapp
92 ab. Mexican and New Miexican Folk Dance. (2-2)
Sedillo
135 ab . Stage Lighting. (3-3) Theory and practice of pres-ent-day methods of lighting the stage.

Miller
160 ab. Advanced Rehearsal and Performance. (3-3) Detailed study of directing techniques. Analysis of scripts. Rehearsal by students, under supervision, of one-act plays for class presentation. Prerequisite: 90 ab .

Snapp
.175 ab . Scene Design. (3-3) Materials, techniques, and methods of scene design and scene painting. Student designs compete for season's production.

Staff
185 ab. Costume Design. (3-3) Historic, modern, and stylized costume and how to design it for the stage. Students execute costumes for season's productions. Staff
199 ab . Problems. (3-3) Advanced work in any of the following fields: directing, lighting, or scene design. Prerequisites: the student must have completed, or give concrete evidence of, all preliminary courses offered in his chosen field.

Staff

## MUSIC

Professor Robb (Head); Assistant Professors Ancona, Frederick, Keller, Kunkel, Redman, Robert; Instructor Burg.

## MAJOR STUDY

For purposes of combined curriculum in Fine Arts: 42 hours including 5 ab and $163 \mathrm{ab}, 16$ hours of applicd music and 4 hours of ensemble music. See also curricula under College of Fine Arts and College of Education.

## MINOR STUDY

College of Arts and Sciences: 16 hours of theoretical courses (including 5 ab ) and 4 hours of applied music. College of Education: see curriculum on p. 146. For purposes of combined curriculum in Fine Arts: 24 hours including 163 ab and $5 \mathrm{ab}, 4$ hours of applied music and 2 hours of ensemble music:

## RECITALS AND PUBLIC EXERCISES

Music majors and minors are required to attend certain specified recitals and to take part in recitals and public exercises. Loss of credit may result from failure to observe this rule.

Students are requested not to perform in public without the consent of the department.

## ENSEMBLE MUSIC

One credit hour represents two hours weekly of rehearsal plus necessary preparation.

Courses marked with $\ddagger$ may be repeated without duplication of credit to the limit of 8 hours' credit for students of the College of Fine Arts, 4 hours for others.

Courses marked with **'open to any student in the University on approval of the instructor.

* $\ddagger 37$ ab. Piano Ensemble. (1-1) Study and performance of literature for two or more pianos; selected from all periods.
including the contemporary. Open to qualified piano students with consent of instructor. Special fee. Staff
*+**41 ab. University Band. (1-1) Study and performance of band literature.

Kunkel
$\ddagger 131 \mathrm{ab}$. Chamber Music. (1-1)
Burg, Frederick
$\ddagger 141 \mathrm{ab}$. University Band. (1-1) Prerequisite: two years in 41 ab . Kunkel

Vocal
*†**43 ab. University Mixed Chorus. (1-1) Study and performance of choral literature.

Redman
$\ddagger 143 \mathrm{ab}$. University Mixed Chorus. (1-1) Prerequisite: two years in 43 ab .

Redman
*t**23 ab. Women's Glee Club. (1-1) Study of sacred and secular compositions covering a wide variety of styles. Concert appearances required; participation in public functions encouraged as a community service. Redman
$\ddagger 123 \mathrm{ab}$. Women’s Glee Club. (1-1) Prerequisite: two years in 23 ab .

Redman
 Redman
$\ddagger 121 \mathrm{ab}$. Men’s Glee Club, (1-1) Prerequisite: two years in 21 ab .

Redman

## THEORY, HISTORY, CONDUCTING, AND COMPOSITION

Theory and History
*3 ab. Sight Singing and Ear Training. [Music Essentials] (2-2) Notation, intervals, key signatures, sight reading, and ear training.

Robert
*5 ab. Harmony. (3-3) An applied study of traditional harmony: aural, written, keyboard, including altered chords and modulations. Prerequisite: $\mathbf{3}$ ab or equivalent. Frederick
*36 ab. Survey of Music History. (3-3). Its social and artistic significance in the history of human progress. a: Through the eighteenth century; b: during the nineteenth and twentieth centuries. Open to non-music majors with consent of the instructor. Students may be required to attend one listening period of one hr. each, every week, at the option of the instructor.

Robb
*95 a. Counterpoint. (3-3) a: Sixteenth century counterpoint; b: applied counterpoint. Prerequisite: 5 ab . Frederick
Theory, Conducting, and Composition
152. Form and Analysis. (2-2) Analysis, aural and from the score, of the structural, harmonic, and contrapuntal ele-
ments of music from the primary forms through the symphony and concerto. Prerequisite: 95 ab Rabb
153 ab . Orchestration. (2-2) Building of the orchestral score; detailed study procedures of past and present masters of orchestral techniques. : Scoring of complete works and carrying through of projects to actual performance. Prerequisites: $55 \mathrm{ab}, 95 \mathrm{ab}$.

Staff
157 a. Choral Conducting. (2) Technique of conducting choral groups. Prerequisite: 5 ab. . Frederick
157 b. Score Reading and Orchestral Conducting. (2) Technique of conducting orchestras and studying scores. Prerequisite: 152 ab .
190 ab . Composition. (2:2) Creative work in original composition, primarily in the smaller homophonic and polyphonic forms, including the writing of fugues. Prerequisites: $95 \mathrm{ab}, 152 \mathrm{ab}$.

Robb

## HISTORICAL MUSIC LITERATURE

Prerequisite: 36 ab.
Students may be required to attend listening periods of one to three hours every week at the option of the instructor.

Normally only one of these courses will be offered each semester.
*83. Eighteenth and Nineteenth Century Opera. (2) Italian, French, German, and Russian music-drama. Robb
171. Introduction to Musicologỳ. . (2) Survey of scientific data and conclusions in the various musical fields.: : Staff
172. Comparative Study of Contempóary Músic̀ Literature. (2) Emphasis placed on music of the Americas, integrally and in relation to European sources, past and present.
180. Palestrina, Victoria, Des Prez, Their Predecessors
and Contemporaries. (2)
Staff
181. Music of Johann Sebastian Bach. (2) Staff
182. Life and Works of Ludwig Van Beethoven. (2). Staff
184. Nineteenth Century Romanticism. (2) A technical and biographical study of Schubert, Weber, Mendelssohn, Dvorak, Berlioz, Schumann, Brahms, Moussorgsky, and Tschaikowsky.

Robert
193. Folk Music of the Southwest. (2) A detailed study of examples of the indigenous Anglo-American, SpanishAmerican, and Indian folk music of the Southwest. Robb

## MUSIC APPRECIATION

163 ab. Music Appreciation. (2-2) Designed for the general student who wishes to supplement his academic knowledge.

Ancona
189 abcd. Vocal Coaching. (1-1) One half-hour of private instruction per week carries one hour of credit. Required of all senior voice students and open to juniors with consent of instructor. Credit will not be allowed for more than two semester's work except by special written approval of the head of the department on recommendation of the instructor. Special fee.

Robert

## PEDAGOGY

165 ab. Methods in Music Appreciation. (1-1) Appropriate literature and its presentation: a: to elementary school pupils; b: to junior and senior high school pupils. May be taken concurrently with 163 ab or subsequently. Ancona

## APPLIED MUSIC (Private Instruction)

One half-hour lesson per week earns two hours' credit per semester. Additional fee. A student majoring in applied music is required to give a public recital in the junior year and another in the senior year. Students should consult the head of the department before enrolling for applied music.

The department offers degree courses for students electing the curricula in applied music, in music literature, and in theory. In applied music, it offers also secondary courses for students desiring a cultural background in music.

The secondary courses in applied music are designed to give those students whose major work is in another field, a practical approach to an instrument or voice. One or two hours' credit may be earned in these courses each semester. The secondary courses are open to beginners in applied music in all fields. The student may continue these courses through four years.

Applied music majors who have had no previous training in piano will be required to enroll in the secondary course in piano.

Students who have had previous training in piano will take a placement examination.

Degree Courses
1 ab. Freshman Course. (2-4 each semester)
51 ab . Sophomore Course. (2-4 each semester)
101 ab. Junior Course. ( $2-4$ each semester)
151 ab . Senior Course. (2-4 each semester)

## Secondary Courses

*19 ab. Freshman Course. (1-2 each semester)
*69 ab. Sophomore Course. ( $1-2$ each semester)
119 ab . Junior Course. ( $1-2$ each semester)
169 ab. Senior Course. ( $1-2$ each semester)
Piano
Ancona, Keller, Robert
Pipe Organ (Students enrolling for pipe organ are required to have a foundation in piano)

Ancona
Violin and Viola
Burg, Frederick
Cello and Guitar
Burg
Wind Instruments
Kunkel
Voice
Redman
Requirements in the Fields of Applied Music. Piano. Entrance requirements for Piano majors: an ability to play major and minor scales correctly in moderately rapid tempo, also broken chords in octave position in all keys; studies such as Czerny's School of Velocity; Bach, Little Preludes; a few Bach Two-Part Inventions and compositions corresponding in difficulty to Mozart, Sonata C major (K.545), Beethoven, Sonata Op. 49, No. 1, Schubert, Impromptu, Op. 142, No. 2, Scherzo in B flat.

At the end of the second year (Music 1 ab and 51 ab ) the student should have acquired a technique sufficient to play scales in parallel and contrary motion and in thirds, sixths, and tenths, and arpegii and octaves in rapid tempo. He should have studied compositions of at least the following grades of difficulty: Bach, at least one complete French Suite; Beethoven, Sonatas or movements from Sonatas such as Op 2, No. 1, Op. 10, No. 1, Op. 10, No. 2, Op. 14, No. 2; Haydn, Sonata E flat, No. 3; Mozart, Sonata F Major (K.332), Fantasia in D minor; Mendelssohn, Song Without Words; Chopin, Polanaise C sharp minor, Valse in A minor; Schumann, Novelette, Op. 21, No. 1; and some compositions by standard modern composers. The student should demonstrate his ability to read at sight accompaniments and compositions of moderate difficulty.

At the end of the fourth year (Music 101 ab and 151 ab ), the candidate must have acquired the principles of tone production and velocity and their application to scales, arpegii, chords, octaves, and double notes. He must have a repertory comprising the principal classics and romantic and modern compositions, such works, for example, as: Bach, several preludes and fugues
from the Well-Tempered Clavichord, Italian Concerto, Chromatic Fantasia and Fugue, an English Suite or Partita; Mozart, Sonata A major (K.331), a concerto; Scarlatti, Sonatas; Beethoven, Sonatas such as Op. 31, No. 3, Op. 53, Op. 57; Schumann, Carnaval; and the more difficult compositions of Brahms, Chopin, and Liszt; compositions by standard modern composers such as Debussy, Ravel, Rachmaninoff, Scriabin, Hindemith, Bartok, etc.

Candidates are required to give a junior and a senior recital and they must have considerable experience in ensemble and as accompanists.

Violin. Entrance requirements for Violin students: an ability to play etudes of the difficulty of the Kreutzer Etudes, up to 32, and the Rode or Kreutzer concerti. An elementary knowledge of the piano is desirable.

By the end of the second year the student should be able to play at least works corresponding in difficulty to the Viotti Concerto No. 22 or the Spohr Concerto No. 2.

By the end of the fourth year the student should be able to perform works such as the Mendelssohn $\mathbf{E}_{\text {Minor Concerto, the }}$ Wieniawski Concerto in D minor, or the Bruch G Minor.

Voice. To enter the four year degree course in voice, a student must be able to sing standard songs in English, with good phrasing and musical intelligence shown.
1 ab . Emphasis is placed upon the skillful use of the breath; elimination of tension, and amplification of resonance: Songs suited to the capacity of the pupil are studied as follows:

1. Eight songs from Early Italian Songs and Airs or from Italian Anthology, Vols. I \& 1 II.
2. Three songs from "Bergerettes" by Weckerlin (for those who have had high school French).
3. Three songs in German by Schubert, Schumann, Brahms or other masters (for students who have had German in high school).
4. For those who are not qualified to do group $2 \& 3$, six old English songs may be substituted.
5. Six songs by modern composers.
6. Four songs suitable to the individual voice. Total-24 songs in freshman year.
51 ab .
7. Six additional songs from Early Italian Songs and Airs or from Italian Anthology, Vols. I \& II.
8. Aria from Mozart operas.
9. Three recitatives and arias from the less difficult oratorios.
10. Eight songs by German or French composers (according to the language studied).
11. Six songs by modern American composers.

Total-24 songs in sophomore year.
101 ab.
Four arias suited to the individual voice, from operas.
Four recitatives and arias suited to the individual voice, from sacred oratorios.
Eight French songs of the nineteenth and twentieth centuries. Eight German songs from the nineteenth and twentieth centuries.
Eight songs in English by modern composers.
Total-32.
Junior Recital.
151 ab.
Four additional arias in Italian, German, French, or English. Four additional arias from sacred oratorios.
Eight French songs of the nineteenth and twentieth centuries.
Eight German songs of the nineteenth and twentieth centuries.
Eight songs in English by modern composers.
Total-32.
Senior Recital.
A total repertoire of 112 songs should be completed by the end of the fourth year of voice study. A list of such repertoire should be compiled by each student of voice and turned in to the Head of the Voice Department and passed on by the music faculty before candidate shall receive his degree. Correct diction in English, Italian, French, and German should be mastered during the study of the above repertoire. A poised stage manner and a pleasing personality should be thoroughly acquired, as voice pupil is called on frequently to sing in music assemblies beginning with the freshman year.

Other Fields of Applied Music. Instruction in Applied Music is offered also in the following fields of instruments: Bassoon, Cello, Flute, Horn, Oboe, Organ, Percussion, Trombone, Trumpet, and Tuba. For requirements in these fields see the instructor.

COLLEGE OF FINE ARTS

## GROUP INSTRUCTION

* $\ddagger 55 \mathrm{ab}$. Orchestral Instruments. (2-2) Group instruction in the playing of woodwind, brass, and stringed instruments. Of special importance to the prospective instrumental teacher and conductor.

Kunkel
$\ddagger 155 \mathrm{ab}$. Orchestral Instruments. (2-2) Continuation of 55 ab .

Kunkel

## COLLEGE OF PHARMACY

Pharmacy is the science which treats of medicinal substances. It embraces not only a knowledge of medicines and the art of preparing and dispensing them but also their identification, selection, preservation, combination, analysis, and standardization.

The purpose of the College of Pharmacy is to provide a thoroughly scientific foundation for the pursuit of the profession of pharmacy in all its branches; to prepare students not only to operate drug stores but to fit them as well for other phases of pharmaceutical activities-to become hospital pharmacists, pharmacists in the Army or Navy; state or federal service, to take up pharmaceutical manufacturing in its many phases, to engage in pharmaceutical research or teaching. The elements of the fundamental natural sciences, biology, chemistry, mathematics and physics, must be studied and their principles understood before their applications to pharmacy can naturally be considered. For this reason students in pharmacy are required to pursue courses in these fundamental sciences, where they have the advantage of close association with students in other departments of the University.

The College of Pharmacy is an integral part of the University and is governed by the same general policy that characterizes that institution.

ADMISSION
The requirements for admission to the freshman class are the same as those for the College of Arts and Sciences, except that one and one-half credits of algebra and one credit of geometry are required. It is particularly desirable that the preliminary preparation include physics, chemistry, botany, physiology, Latin, typing, and commercial arithmetic.

## SCHOLASTIC REGULATIONS

Students in the College of Pharmacy will be governed by the scholastic regulations given under "General Academic Regulations."

## ADVANCED STANDING

The general requirements are those for the College of Arts and Sciences. In accordance with a ruling adopted by the American Association of Colleges of Pharmacy at the Dallas, Texas, meeting in 1937, any student entering a school or college
of pharmacy with advanced standing is required to complete three full years of resident study for the degree of Bachelor of Science in Pharmacy, unless such advanced standing was earned in a school or college of pharmacy.

## REGISTRATION

Licensure as a pharmacist is under control of the New Mexico State Board of Pharmacy.

## SCHOLARSHIPS AND LOANS

Scholarships and loans will be available to those who qualify. For information write to the Dean, College of Pharmacy.

## DEGREE REQUIREMENTS

The degree of Bachelor of Science in Pharmacy is granted upon completion of the course. The candidate for graduation must have completed a total of 130 credit hours and must have completed all the work in the pharmacy curriculum. The total number of grade points in the hours offered for graduation must equal the total number of hours. At no time shall the student carry more than nineteen hours per semester.

## CURRICULUM

The four-year curriculum leading to the degree of Bachelor of Science in Pharmacy is a standard course and recognized by the American Association of Colleges of Pharmacy. For the year 1945-46 the College offered only freshman work. Both first and second year work will be offered in 1946-47. In the same manner, year by year the additional two years' work will be offered. Electives, where permitted, are to be chosen with the advice and consent of the student's advisor.

Students who are required to take English A must do so in addition to the regular courses in English.

The professional courses in pharmacy are not open to election for credit by non-pharmacy students without permission of their respective deans.

## CURRICULUM LEADING TO THE DEGREE OF BACHELOR OF SCIENCE IN PHARMACY

Courses of Study. Recommended sequence. FRESHMAN YEAR

| First Semester |  |
| :--- | ---: |
| English 1 a (Composition) | 3 |
| Chemistry 1 L (General) | 4 |
| Mathematics 15 (College Algebra) | 3 |
| Biology 1 L (General) | 4 |
| Pharmacy 1 L (Orientation) | 3 |
| Pharmacy 30 (Colloquy) | 0 |
| Physical Education | 1 |
|  | 18 |



| Pharmacy 51 L (Pharm. Prep. I) 4 | Pharmacy 72 L. (Pharmacognosy I) |
| :---: | :---: |
| Physics 1 aL (General) 4 | Physics 1 bL (General) |
| Chemistry 55 aL (Quant. Analysis) 3 | Chemistry 55 bL (Quant. Anal.) |
| Bus. Adm. 53 a (Bookkeeping and | Psychology $5^{1}$ (General) |
| Accounting) 3 | Pharmacy 30 (Colloquy) |
| Pharmacy 30 (Colloquy) | Electives |
| Electives | Physical Education |
| Physical Education | .. $\quad$ - |
| - | 18 |
| JUNIOR | YEAR |
| Chemistry 101 aL (Organic) . 4 | Chemistry 101 bL (Organic) |
| Biology 39 L (Gen. Physiol.) . 5 | Biology 93 L. (Gen. Bacteriology) |
| Pharmacy 161 L (Pharm of Med.. Prod. J) | Pharmacy 152 L (Pharm. Prep. II) Pharmacy 122 (Pharm. Law) |
| Pharmacy 121 (History of Pharm.) 1 | English 55. (Public Speaking) . |
| Economics 105 (Prin. of Econ.) 3 | Pharmacy 30 (Colloquy) o |
| Pharmacy 30 (Colloquy) . . | Electives |
| Electives 2 |  |
| - - | - 18 |
| 18 | .. $\quad \therefore$. |
| SENIOR | YEAR |
| Pharmacy 181.L (Disp.. Pharm. I) 4 | Pharmacy 182 L (Disp. Pharm. II) |
| Pharmacy 163 L (Pharm of Med. Prod. II) | Pharmacy 172 L (Pharmacognosy II.) |
| Pharmacy 191L (Pharm. Chem.) 4 | Pharmacy 196 L (Pharmacology) |
| Pharmacy 155 (Drugstore Man. I) 2 | Pharmacy ${ }^{156}$ (Drugstore Man. II) |
| Pharmacy 30 (Colloquy) . | Pharmacy 142 (First Aid) |
| Electives . 3 | Pharmacy 176 (Insecticides) |
|  | Pharmacy 30 (Colloquy) |
| 17 | Electives : |
| COLLEGE OF PHARMACY |  |
| DEPARTMENTS OF INSTRU | JCTION |

Courses numbering: from 1-50, lower division, normally open to freshmen; from 51-100, lower division, normally open to sophomores; from 101-200, upper division, normally open to juniors, seniors, and graduates; 201-300, open to graduates only. Graduate credit for courses listed is allowed at the discretion of the Graduate Committee.

Symbols used in course descriptions: ab or cd-course offered throughout two semesters; L-part of the course is laboratory work; $\mathbf{F}$-course is given during field session; SS-course offered in eight weeks' summer session only; Yr -course offered throughout two semesters and credit for a single semester's work is suspended until the entire course is completed; I-course offered in first semester only; II-course offered in second semester only; *course open to General College students; $\dagger$-course offered for General College credit only: ( )-credit value for each course for each semester; [ ]-former course number or title.

## COLLEGE OF PHARMACY

A schedule of course offerings, including hours of meeting, is issued at the opening of each session. The University reserves the right to cancel any listed course or to make a substitution in instructors when necessary.

## PHARMACY

Professor Bowers (Dean).
*1 L. Pharmaceutical Orientation. (3) A beginning course in the fundamental principles and processes of pharmacy, including background material in pharmaceutical history, literature, and terminology, and the practical application of mathematics to pharmacy. 2 lectures, 3 hrs. lab.
*2. Pharmaceutical Calculations. (2) Metrology. A study of the systems of measurements and various calculations used in the practice of pharmacy. Prerequisite: 1 L or concurrent registration.
*30. Colloquy. (0) Required of all students enrolled in the College of Pharmacy. Lectures by various outside speakers and special student assignment reports pertaining to modern drug store practice. One hour meeting per week.
51 L. Pharmaceutical Preparations I. (4) A course devoted to a study of the various classes of pharmaceutical preparations (official and non-official) including the preparation of typical examples of each. Included also are the fundamentals of Latin as used in pharmacy and medicine. Prerequisite: Chemistry 1 L . 2 lectures, 6 hrs. lab.
72 L . Pharmacognosy I. (4) A study of the science which treats of the history, source, cultivation, collection, preparation, distribution, commerce, identification, composition, purity and preservation of drugs of vegetable and animal origin. Prerequisites: Chemistry 1L and 2L, Biology 1L and 2 L . 2 lectures, 6 hrs . lab.
121. History, Literature, and Ethics of Pharmacy. (1) A study of the development of the science and profession and a survey of its past and present literature.
122. Pharmaceutical Law. (1) A study of the laws and regulations relating to the practice of pharmacy, together with a consideration of the principles of constitutional law, statutory law, and common law which bear-upon the work and responsibilities of the pharmacist.
142. First Aid, Públic Health and Hygiene. (1) This course combines the standard Red Cross First Aid course with the principles of prevention and control of diseases, and the application of the pharmacist's knowledge and
facilities to the promotion of public health and welfare in coöperation with public and private health agencies, and including a survey of municipal, state, and federal health regulations.
152 L. Pharmaceutical Preparations II. (4) A continuation of Pharmacy 51 L .2 lectures, 6 hrs . lab.
155. Drug Store Management I. (2) A study of the underlying principles of the production, marketing, and consumption of drug products.
156. Drug Store Management II. (2) Management of retail pharmacies including a description and analysis of the operating problems which must be met in the successful conduct of a retail store, professional shop and hospital pharmacy.
161 L. The Pharmacy of Medicinal Products I. (3) A study from the pharmaceutical viewpoint of the official and non-official inorganic substances used as medicines or in the preparation of medicines. Prerequisites: Chemistry 1 L and 2 L. 2 lectures, 3 hrs. lab.
163 L. The Pharmacy of Medicinal Products II. (4) A study of the pharmaceutical utilization of natural and synthetic organic substances of official and non-official origin. Prerequisite: senior standing. 2 lectures, 6 hrs . lab.
172 L. Pharmacognosy II. (3) A continuation of 72 L . A study of animal and vegetable drugs and their constituents. Prerequisite: senior standing.
176. Insecticides, Fungicides, Parasiticides, Rodenticides. (1) This course is designed to familiarize the pharmacist with the problems and methods of control of insects, fungi, parasites, and rodents. Prerequisites: Biology 1 L and 2 L .
181 L. Dispensing Pharmacy I. (4) Dispensing pharmacy is broadly defined as the translation of the sciences underlying pharmacy into the art of pharmacy. More specifically it is the application of the scientific and practical knowledge upon which the practice of pharmacy is based to the extemporaneous compounding of drugs and medicines and making these available under proper control. Prerequisite: senior standing. 2 lectures, 6 hrs. lab.
182 L . Dispensing Pharmacy II. (4) A continuation of 181 L . A study of the compounding and dispensing of prescriptions, including incompatibilities.
191 L. Pharmaceutical Chemistry. (4) A course embracing the fundamental analytical operations as used in deter-

## COLLEGE OF PHARMACY

mining the identity, strength, and purity of drugs and chemicals: Prerequisites Chemistry $1 \mathrm{~L}, 2 \mathrm{~L}, 55 \mathrm{abL}$; 101 abL. $: 196 \mathrm{~L}$. Pharmacology (3) A study of the effects produced by drugs on the living organism and the mechanisms whereby these effects are produced. The action of the more important drugs is demonstrated upon living animals. "It includes the relationships of pharmacology, posology, therapeutics, toxicology, and bioassay. Prerequisite: senior standing. 2 lectures, 3 hrs. lab.

## GENERAL COLLEGE

The General College has been planned in terms of twoyear programs. It makes provision for rather large numbers of students who, for one reason or another, do not find the four-year course advisable. Some of these groups are:

1. Those who are interested in general, instead of specialized, types of knowledge. Students of this sort prefer an overview of a field with emphasis upon general principles rather than upon techniques and details, and are to be taken care of to a large extent by survey courses. Even specialists in one field of knowledge, however, will find use for comprehensive surveys in others.
2. Those who wish to "explore." Interest in one or more of the fields of knowledge is a prime factor in college success; and this interest, together with greater efficiency in mental habits, cap often be fostered through exploration.
3. Those who desire distinctly vocational courses of the semiprofessional nature. Many capable young people want courses that lead to definite vocational techniques, even though they ire not interested in general academic training.
4. Adults who have no interest in degrees or in techníical courses, but who desire information and guidance in general or practical fields.
5. Finally, there are those young people who know from the beginning that either for financial or other reasons they must place a time limit upon their higher education. They may prefer either the general or the vocational type of training, but they are forced to look for that from which they can derive the most nearly finished and comprehensive results in less than four years.

## ADMISSION REQUIREMENTS

For admission requirements to the General College, see "Admission." Applicants for admission are held to the regulations as set down in the general admission section, except that the Committee on Entrance and Credits may accept an individual who has been recommended by the General College Committee for special consideration.

A student with more than 60 semester hours, exclusive of physical education, is not permitted to enter the General College.

## SCHOLARSHIP REGULATIONS

See pp. 50, 52.
TRANSFER
A student may be recommended for transfer from the General College to one of the other colleges of the University at the

## GENERAL COLLEGE

end of any semester or summer session, after having been regis tered for twelve or more hours (six or more hours in summer session), (1) when the average for the first semester in the University is equal to 1.2 (not applicable to transfer students), or when, after the first semester, the number of points earned is at least equal to the total number of hours which he has attempted in college, or (2) after receiving the General College Diploma, on the same basis as any other transfer student.

## COMPLETION OF COURSE

Sixty-four hours of passing work, exclusive of non-theoretical courses in physical education, must be completed in order to fulfill the requirements for the General College diploma. Normally, this work will be divided into four semesters as indicated below.

Students registering in the General College may pursue courses in the Department of Naval Science and Tactics only with the permission of the dean of the General College and the head of the Department of Naval Science and Tactics. For those students enrolled in the Naval R.O.T.C. Unit, the course in Naval Science may be substituted for the course in Physical Education.
general college
Agademic Course $\dagger$

## FRESHMAN YEAR

First Semester
English 1 a
Intro. to Soc. Sci.

| Second Semester |  |  |
| :---: | :---: | :---: |
| 3 | English 1 b | ) |
| 3 | Intro. to Soc. Sci. | 3 |
| 1 | P. E. | 1 |
| 2 | Math., Spanish, or Elect.* | 3 |
| 3 | Electives | 6 |
| 4 |  |  |
| - |  | 16 |

SOPHOMORE YEAR

| Electives from courses starred (*) <br> in catalog | $\left.\begin{array}{c}\text { Electives from courses starred (*) } \\ \text { (*) }\end{array}\right]$ |
| :--- | :--- | :--- |
| 16 |  |

ART FRESHMAN YEAR

## First Semester

English 1 a
Intro. to Soc. Sci.

Art 1 a
Art 45 Electives

Second Semester
3 English 1 b 3
3 Intro. to Soc. Sci.
3 Art 1 b 3
4 Art 45 . 4
3 Electives 3
*Choice of: Art 1 ab, 25, 32, 45; Business $4,5,6,8 \mathrm{ab}$; Engineering i L, 2L, 3. 4; Home Economics 1, 2 L; Mathematics 14; Applied Music; P. E. 22 L, 61 L, 62 L ; Spanish $1 \mathrm{ab}, 41 \mathrm{ab}, 55 \mathrm{ab}$.
$\dagger$ For courses open to General College students see offerings marked * and $\dagger$ under college sections.

## SOPHOMORE YEAR

| Art 51 | 2 | Art 51. | 2 |
| :---: | :---: | :---: | :---: |
| Art 52 a | 3 | Art 63 | 3 |
| Art 63 | 3 | Art 52 b | 3 |
| Art 71 a or 85 | 3 | Art 71 b or 85 | 3 |
| Art 75 a or 133 a | 3 | Art 75 b or 133 b | 3 |
| Elective | 2 | Elective | $\pm$ |
| General Business |  |  |  |
| FRESHMAN YEAR |  |  |  |
| First Semester |  | Second Semester |  |
| English 1 a | 3 | English . 1 b | 3 |
| Mathematics | 3 | Mathematics | 3 |
| Business Administration ira | 2 . | Business :Adm. 11 b | 2 |
| Business 3 aL | 3 | Business 3 bL | 3 |
| Business 4 | 3 | Electives | 5 |
| Electives. | $2 \div$ |  |  |

Business 8 a
Intro. to Soc. Sci.
SOPHOMORE YEAR

Econ. 63
3 Business 6 . . . 2
3 . Bus. Adm. 65 3
Electives
3 Business 8 b
7 Intro. to Soc. Sci. . . 3
Electives इ
Home-Making
FRESHMAN YEAR

First Semester
English 1 a
Intro. to Soc. Sci.
Home Ec. 1
Psychology 1 aL
Biology $3^{6}$
Electives

Home Ec. 53 aL.
Home Ec. 63 aL
SOPHOMORE YEAR
3 Home Ec. 53 bL 3
P. E ${ }^{61}$

Electives
9 Home Economics 63 bL
Electives
Second Semester
3 English 1 b 3
3 Intro. to Soc. Sci. 3
3 Home Ec. 2 L
3 Psychology 1bL 3
3 Electives 3

Sociology $5^{1}$
5
3

Industrial Arts
See first two years Industrial Arts Curriculum, College of Engineering. Some adjustments to fit individual needs may be arranged.

Pre-Professional
FRESHMAN YEAR

First Semester
English 1 a
Science
Math. or Intro. to Soc. Sci.
Orientation
Electives

Second Semester

| 3 | English 1b |  |
| ---: | :--- | ---: |
| 4 | Science | 3 |
| $3-5$ | Math. or Intro. to Soc. Sci. | 4 |
| $3-1$ | Electives | $3-5$ |
| $\frac{3}{3}$ |  | $6-4$ |
| 16 |  | 16 |

## GENERAL COLLEGE

SOPHOMORE YEAR
To be arranged with the dean of the College.
Music

## FRESHMAN YEAR

First Semester
Second Semester

English 1 a
Intro. to Soc. Sci.
Music 3 a
Applied Music
Ensemble Music
Electives

3 English 1 b
3 Intro. to Soc. Sci. 3
2 Music 3 b 2
4 Applied Music 4
1 Ensemble Music
3 Electives - 3
SOPHOMORE YEAR
Dram. Art 1 a $3 \quad$ Dram. Art 1 b 3
Music 36 a
Ensemble Music
Electives

3 , Music 36 b 3
1 Ensemble Music 1
9 Electives 9

Recreational Leadership
FRESHMAN YEAR
First Semester

## Second Semester

English 1 a
Intro. to Soc. Sci.
3. English 1 b

Dramatic Art 3 a
3 Intro. to Soc. Sci. 3

Psychology 1 aL
2 Dram. Art 3 b 2
3 Psychology 1 bL 3
P. E. Activities
P. E. Activities 1
P.E. $4^{0} \mathrm{~L}$ or $4^{2}$

Electives
P.E. 22 L or 652
Electives 2 Electives 2

SOPHOMORE YEAR
P.E. 22 L or 72 2 P.E. G1 L or 62 L or 123 2
P. E. Activities

1 P.E.Activities
P. E. $105^{\text {a }}$

3 P.E. 105 b 3

Chorus, Band, Orchestra, and
Chorus, Band, Orchestra, and

## Dramatics

Dramatics
Electives
2
Electives
Secretarial
FRESHMAN YEAR
First Semester

English 1 a
Intro. to Soc. Sci.
Bus. Adm. 11 a
Bus. Adm. 12 a
Business 3 aL
Business 4
3 English 1 b 3
3 Intro. to Soc. Sci. 8
2 Bus. Adm. i: b
3 Bus. Adm. 12 b 3
3 Business $3 \mathrm{bL} \therefore \quad 3$
3 Business 5 3
SOPHOMORE YEAR
Bus. Adm. $5^{1}$ a
2. Bus. Adm. 65 - 3

Bus. Adm. 52 a
Business 8 a
Mathematics
Electives

3 Bus. Adm. $5^{1 \mathrm{~b}} \quad .2$
3 Bus. Adm. 52 b 3
3 . Business 6
5 Business 8 b 3
Electives 3

## OTHER DIVISIONS OF THE UNIVERSITY <br> THE GRADUATE SCHOOL

Communications concerning graduate study should beasent directly to the dean of the Graduate School. Commúnications in regard to admission to the Graduate School should be sent to the admissions officer. Transcripts in the possession of students are not acceptable, but should be sent to the admissions officer from the institution previously attended.

## DEGREES OFFERED

Graduate work leading to the Master's degree is offered in the departments of Anthropology, Art Education, Biology, Chemistry, Economics and Business Administration, Education, Civil Engineering, Electrical Engineering, Mechanical Engineering, English, Geology, Government and Citizenship, Greek and Latin, History, Inter-American Affairs, Mathematics, Modern Languages and Literature, Painting and Design, Physics, Psychology, Sociology, and a limited amount of work in Fine Arts.

The degree of Doctor of Philosophy is offered in American Civilization, Anthropology, English, History, and Spanish.

Candidates should consult the head of the department concerned and the dean of the Graduate School before registering.

## ADMISSION

Graduates of any recognized college or university may apply for admission to the Graduate School, with a view to becoming candidates for degrees. Selection of advanced students is based on the scope and quality of the applicant's scholastic record and his qualifications for independent study.

Graduates of institutions other than the University of New Mexico should file complete certified transcripts of their records with the admissions officer at least two weeks before registration. Students presenting such transcripts will be given a statement regarding the availability of credit for such work at this University. Any student may be refused admission if his previous college record is of such inferior quality as to indicate inability to pursue advanced work satisfactorily.

## REQUIREMENTS FOR MASTER'S DEGREE

The minimum requirements for a Master's degree are thirty semester hours, including a thesis. The thesis is required.

## EXTENSION AND CORRESPONDENCE COURSES

The University accepts no graduate work by extension or correspondence from other institutions.

## OTHER DIVISIONS

## FELLOWSHIPS

A number of fellowships are offered in the various departments. Correspondence in regard to fellowships may be addressed to the dean of the Graduate School or to the head of the department in which the candidate proposes to do his major work. Application blanks may be obtained from the office of the Graduate School.

## INFORMATION

For further information regarding advanced work and the conditions under which higher degrees may be obtained, consult the Graduate Catalog or the Graduate Office.

## SUMMER SESSION

A summer session of eight weeks is conducted each year on the campus. (For dates, see the Calendar.) Every attempt is made to meet specialized needs of the particular student group of the session. Emphasis is placed on advanced and graduate work. A special program is offered for teachers and school administrators. The summer climate is warm but delightful; nights are cool. The residential halls are regularly operated during the Summer Session. A separate bulletin on the Summer Session may be obtained by addressing the director of the Summer Session, or the admissions officer.

## FIELD SESSIONS

Field sessions are usually conducted each summer by the Departments of Anthropology, Art, and Engineering. Work in Biology and Geology is sometimes offered in the field. (For dates, see the Calendar.) Separate bulletins are published on the field sessions, and may be obtained by addressing the head of the department concerned.

## EXTENSION DIVISION

The Extension Division of the University is a member of the National University Extension Association and is under the supervision of the College of Education. A special extension bulletin is issued each year, giving regulations and information concerning courses and services rendered by the Extension Division.

For a copy of the extension bulletin and further information, address the director of extension, Extension Division, University of New Mexico, Albuquerque.
NAVAL RESERVE OFFICER'S TRAINING CORPSThis department is administered by officers of the UnitedStates Navy in accordance with rules promulgated by the NavyDepartment.
DEPARTMENT OF NAVAL SCIENCE AND TACTICS
Captain Newsom, U.S.N. (Head), Professor; CommanderDaunis, U.S.N., Associate Professor; Lieutenant CommanderJeffery, U.S.N., Associate Professor; Lieutenant CommanderRoss. U.S.N.R., Associate Professor; Lieutenant CommanderBambarger, U.S.N.R., Associate Professor; Lieutenant Brace,Jr., U.S.N.R., Assistant Professor; Lieutenant (jg) Rosenberg,U.S.N.R., Assistant Professor; Lieutenant (jg) Grauten,U.S.NR., Assistant Professor; Lieutenant (jg) Kelly, U.S.N.R.,Assistant Professor; Lieutenant (jg) Barlow, Assistant Pro-fessor.
Third College Term
N.S. 1. Seamanship. ..... (3)
Fourth College Term
N.S. 2. Seamanship. ..... (3)
N.S. 4: Navigation and Nautical Astronomy. ..... (3)
Fifth College Term
N.S. 3. Engineering and Damage Control ..... (3).
N.S. 5. Navigation and Nautical Astronomy. ..... (3)
Sixth College Term
N.S. 6 Naval Administration and Law. ..... (3)
N.S. 8. Ordnance and Gunnery. ..... (3)
Seventh College Term
N.S. 7. Tactics and Aviation.(3)
N.S. 9. Ordnance and Gunnery. ..... (3)
Eighth College Term
N.S. 10. Communications.
N.S. 11. Refresher. ..... (3)
THE BUREAU OF BUSINESS RESEARCHThe Bureau of Business Research was established July, 1945,in the Department of Economics and Business Administration.Its purpose is to promote the economic welfare of the statethrough investigation and study of economic and business prob-lems and the dissemination of information. More specifically its

## OTHER DIVISIONS

objectives are to promote the development and intelligent utilization of the State's resources and full employment for its people; to assist businessmen in dealing with their problems of marketing, internal operations, and planning for the future, to encourage the pursuit of business and economic research on the part of students and faculty, and to provide a medium through which the skills and talents of the Department of Economics and Business Administration and the University as a whole may be made of assistance to the community.

The basic activities of the Bureau consist of gathering, analyzing, and interpreting data concerning the economic life of the state-its population, natural resources, employment opportunities, income, business activities, and markets. Studies are initiated by the Bureau or are undertaken for business concerns or other interested organizations. In order that the results of these studies may be utilized, information is disseminated through Bureau publications, the press, and over the radio. In addition to its special studies, the Bureau attempts to keep in touch with the current business situation, both locally and nationally. So that businessmen and others in the state may have access to this information, a monthly Review of New Mexico Business, is published which carries indexes of business activity and short articles concerning current business conditions. The Bureau also acts in the capacity of consultant to those who want to avail themselves of its services, and sponsors conferences at which businessmen, civic leaders, and scholars may meet for the purpose of exchanging information and pooling their resources toward the solution of common problems.

## INFORMATION FOR VETERANS

QUESTIONS AND ANSWERS ABOUT G. I. BILL 346
The following questions and answers are for veterans who are interested in filing claim under the G. I. Bill (346).
Q-Is there any way in which I can qualify for benefits under this bill on fewer than ninety days' active service?
A-Yes, if you were discharged on account of an injury or disability actually incurred while in service.

Q-What educational institutions may I select?
A-Any that will accept you.
Q-How soon must I claim my rights under the G. I. Bill?
A-Not later than four (4) years after date of your discharge from service or the close of World War II, whichever is the later.

Q-How long will this opportunity for training be open to me?
A-For nine (9) years after the close of the World War II, but you must present your claims within four (4) years after your discharge or the close of the war, whichever is the later.

Q-What is the longest period for which a veteran may procure education or training under the G. I. Bill?
A-Four (4) years.
QUESTIONS AND ANSWERS ABOUT THE VOCATIONAL BILL
If you intend to apply under Public Law 16 (Vocational Rehabilitation), study the following questions and answers.
Q-How long must I have served in order to be eligible for vocational training under this bill?
A-So far as length of service is concerned, you are eligible if you have served in either the army or navy at any time between September 16, 1940, and the close of World War II.

Q-Must I be eligible to a pension before I can claim under this law?
A-Yes.
Q-Would such eligibility alone qualify me for benefits?
A-No. Your disability must be one which the Veterans Administration considers a vocational handicap.

## INFORMATION FOR VETERANS

Q-Must the disability have been incurred while I was in service?
A-Not necessarily. It might be a disability which existed when you entered the service, but has been aggravated by your service duties.

Q-To how much vocational training am I entitled?
A-To whatever amount (not to exceed four [4] years) the Veterans Administration considers necessary to fit you for gainful employment.

Q-How long may I wait before applying for benefits under this bill?
A-The law goes out of effect nine (9) years after the close of World War II, but applications should be made early.

Q-What training institution may I enter?
A-Any one in your own state or in the region of the Veterans Administration in which your home is situated, or elsewhere if approved by the regional chief of the vocational rehabilitation and education division of the Veterans Administration.

Q-What studies or course of training may I select?
A-Any that the Veterans Administration will approve.
Q-To what financial benefits am I entitled while I am in training?
A-Allowance for all necessary tuition, fees, textbooks, supplies and equipment will be made to the institution or training agency in which you are enrolled.

Q-Do I receive any compensation?
A-Yes, a monthly pension.

## TYPICAL QUESTIONS FROM THE SERVICES

Q-Have you established any scholarships or loans to veterans?
A-The scholarships and awards of the University are listed on p. 40. Although none of these is set up specifically for veterans a veteran would be eligible for them on the same basis as other students.

Q-May a veteran who has not been graduated from high school enter the University?
A-Yes. A veteran who is 19 years of age may enter as a special student, with permission of the dean of his college; after two semesters he can petition to change to regular status. See p. 30.

Q-Will you admit a veteran who is not eligible, because of age, to enter under the "special student" ruling?
A-If a veteran is deficient in high school requirements but is not old enough to enter as a special student, he should write the admissions office. Special consideration will be given to his case by the Committee on Entrance and Credits and he will be notified whether or not he is eligible for admission.

Q-Will a veteran whose high school record is deficient be considered for admission if he demonstrates ability to do college work by examinations such as the general educational development test of the USAFI?
A-Yes.
Q-Will college credit be granted at the University of New Mexico to veterans for A.S.T.P., V-12, and other service training programs studied at colleges and universities?
A-Yes. Credit for college training programs will ordinarily be granted on the same basis as allowed by the offering college or university. The veteran should request that a transcript of his record be sent directly to the admissions office wherever he expects to enroll. Such transcript will be considered on the same basis as the usual transfer of college credits.

Q-Does your institution give credit for basic or recruit training?
A-Yes. The University grants a maximum of eight semester hours credit for completion of basic or recruit training.
Q-Will college credit be granted for service courses, educational programs, and experience in the service?
A-If you received training in the armed forces in fields related to the educational program of the University, consideration will be given to the granting of college credit by examination. Application for such credit will be included in USAFI Form 47 intended for use while still in the service. Upon discharge, service personnel are issued papers which contain the information necessary for evaluation of service record (e. g., the Navy "Notice of Separation," the "Army Separation Qualification Record").

Q-May veterans enter at any time?
A-No. A student may not enter after the second week of the semester. (See the Calendar.)

Q-Does the veteran take a physical examination? Is medical attention provided? Does the University have an Infirmary?
A-Veterans take the same physical examination as all new students. The University maintains a full-time physician and nurse, and an Infirmary. The local Veterans Hospital is conveniently located for services to veterans.
Q-Does your institution have a placement service?
A-A placement bureau is maintained for students preparing to be teachers. In other fields students are assisted through the department in which they are majoring. Veterans under Public Law 16 are undergoing training for the specific purpose of restoring employability. Placement counseling given these veterans by the Veterans Administration helps find employment. For veterans under Public Law 346, the Manual of Advisement and Guidance, issued by the Veterans Bureau, states that Vocational Guidance will include placement counseling if the veteran desires it. In other words, a veteran will get assistance in his efforts to secure employment, suitable to his occupational capacities, as evaluated during the vocatonal advisement procedure. It will be noted that there is an Administrator of Retraining and Re-employment appointed by the President under Public Law 458, which is concerned with coördination of every federal state activity that has to do with vocational rehabilitation or education or training. The veteran has at his disposal the services of the War Manpower Commission's Veterans' Employment Service, United States Employment Service, which is active in actually placing veterans in employment. The central state office of this service is located at 111 S. Sixth St., Albuquerque. The state's 13 local offices of this service for veterans are located at Albuquerque, 105 S. Sixth St., and in the following other cities: Santa Fe, Las Vegas, Raton, Clovis, Hobbs, Carlsbad, Roswell, Alamogordo, Las Cruces, Silver City, Gallup, and Taos.
Q-Is physical education required of a veteran?
A-Physical education is required of all students. Some exservice students will have met these requirements while in the service. Students over thirty years of age, or students who secure a permanent waiver of this requirement from the University physician, will not be required to complete the four semesters of physical education.

## INFORMATION FOR VETERANS

Q-Does your institution provide campus employment for veterans?
A-Yes. Any student may apply for employment on the campus through the personnel office. Although the personnel office often places students in jobs off campus, such employment is usually obtained directly by the student.

## DEGREES CONFERRED

June Twenty-second, Nineteen Hundred Forty-five COLLEGE OF ARTS AND SCIENCES<br>Bachelor of Arts<br>Name: Major; Minor<br>Marguerite Juliet Adair: Inter-American Affairs<br>Gertrude Armijo: Inter-American Affairs<br>Orville Charles Fuqua: Economics; Naval Science<br>Roberta Ann Hart: Inter-American Affairs<br>Margaret Herlihy: Spanish; French<br>John Murray Kagy: Government; Philosophy<br>*Edward Dale McClaskey: Government; Economics<br>James McDowell: English; History<br>Seledón Martinez: Inter-American Affairs<br>Alice Frances Metzler: Sociology; Psychology<br>Robert Clayton Patch: Philosophy; Anthropology<br>*Priscilla Louise Prater: Anthropology; History Mary Lucille Prather: History; Home Economics Carol Varley Ruppé: Anthropology; History Frances Ann Simms: Government; English Clara Sipes: Sociology; Government<br>Edward F. Sommers: Government; Sociology

## Bachelor of Science

Name: Major; Minor
Edward Ellsworth Botems: Mathematics; Naval Science
Bettye B. Burnett: Home Economics; English
John E. Casey: Psychology; Anthropology Demetrio A. Chavez: Biology; Spanish Editha Quincy Cochran: Mathematics; Chemistry Leon S. Hughes: Chemistry; Mathematics Willa D. Karins: Chemistry; Music

- Thomas Gordon Bennett King: Mathematics; Naval Science Kenneth Selby Mills: Biology; Chemistry Floy Agnes Naranjo: Biology; German


## Bachelor of Business Administration

## Name: Major; Minor

Cleo Fern Courtney: Business Administration Virginia Rose Ellinwood: Business Administration Mary Helen Green: Business Administration; Home Economics Shirley Ann Mount: Business Administration
Loretta June Redenbaugh: Business Administration; History Claude S. Sena: Business Administration; History
Elmer C. Sproul: Business Administration
*With Distinction

COLLEGE OF ENGINEERING
Bachelor of Science in Civil Engineering

| William Rogers Gafford | V. L. Mike Mahoney |
| :--- | :--- |
| Ray Rodney Jones, Jr. | John Murray Nutter |
| Bob Lockwood | Richard G. Orcutt |

Harry Wooten Platter

*Everett E. Zwicky, Jr.

## Bachelor of Science in Mechanical Engineering

Robert A. Blaise Demetrio Ernest Garcia
George Clyde Clark $\quad \therefore$ : Allyn Burson Hazard
John Donald Coleman
Norman W. Hunter
Lester Dassoff
George Shannon Emmons
Roy Allen Frame
John M. King
Harry E. Kinney
Thomas Reed Murray
Robert Clark Noe

## COLLEGE OF EDUCATION

Bachelor of Arts in Education
Name: Major; Minor; Curriculum
Caroline A. Brentari: Social Studies; --; High School
Alfred G. Cordova: Government; English; Elementary
Marian Jones Erwin: English; Home Econ.; High School
Margaret Lucille Haddix: Art Education; - - ; High School
Edla Marie Halama: History; .Physical Ed.; High School
Irma Yarbrough Johnson: Sociology; Spanish; Elementary
Margaret McCanna: English; Music Ed.; High School
Jean Ellen McDonald: English; History; Elementary
Patricia Ann McMartin: English; Philosophy; High School
*Nellie O. Matthews: Art; Home Econ.; High School

## Bachelor of Science in Education

Name: Major; Minor; Curriculum
Mary Esther Dark: Adm: and Superv.; English; Adm. and Sup. Antoinette Granito: Adm. and Superv.; Home Econ.; Adm. and Sup. Mary Virginia Leslie: Home Economics; . . . . . High School Anne Elizabeth Reed: Home Economics; Physical Ed.; High School Ruth Shockey: Commercial Ed.; Home Econ.; High School $\dagger$ Katherine Mary Trible: Mathematics; English; High .School

[^15]
## DEGREES CONFERRED

Bachelor of Science in Physical Education
Name: Major; Minor; Curriculum
Patricia Ann Hannett: Physical Ed.; --; Physical EducationMargaret Padilla Vasilakis: Physical Ed.; Biology; Physical EducationSara B. Wilson: Physical Ed.; Biology; Physical Education
COLLEGE OF FINE ARTS
Bachelor of Fine Arts in Art (Painting and Design)

Marian Jo Cowan
Helen Aileen Gutierrez

Marva McGee
Jeannette Pruyn Reed Norma Jean Rummell
Bachelor of Fine Arts in Music
Caroline Parkhurst *Patricia Louise Sanford
GRADUATE SCHOOL
Master of Arts
Name: Major
Cheh Jen-Chung: Education
Theo R. Bolongaro Crevenna: Inter-American Affairs.
Ethel Hanes Durand: Education
Abraham Feldman: English
Harold B. Freshley: Zoology
Beatrice Branch Hale: Government, Education
Geraldine B. Hanny: History
Mercedes A. de Ramos Márquez: Inter-American Affairs
Edgar Cohen Penick, Jr.: Spanish
Jerome Kearby Reid: Education
Don M. Riddle: History
Elizabeth Louise Sherbino: Education
G. Carl Wiegand: Government
Master of Science
Mary Elizabeth Johns: Botany
GENERAL COLLEGE DIPLOMA (TWO-YEAR COURSE)
Maxine Bullock (as of February, 1944)
Rudolph Bubany (as of October, 1944)
October Twentieth, Nineteen Hundred Forty-five
college of arts and sciences
Bachelor of Arts
Name: Major; Minor
Elizabeth Ann Berteling: Anthropology; Sociology
James Alfred Borland; Government and Citizenship; Economics Elizabeth D. Duffy: Business Administration, English
Betty Erhardt: Sociology; Spanish
Robert E. Ferris: Inter-American Affairs
Patricia Ann Griffin: History, Government and Citizenship
Orlando G. Ortiz: Inter-American Affairs
*With Distinction

## DEGREES CONFERRED

> Maxine Runyan: Sociology; Psychology
> Loretta F. Stenhouse: Government and Citizenship; English Wilfred Ernest Torres: Government and Citizenship; Economics, Spanish Phyllis Lenora Woodhead: Art; Spanish

Bachelor of Science Name: Major; Minor<br>Sybil Allyn George: Biology; English<br>Doris Ann Jones: Chemistry, Mathematics; Music<br>Earl Joseph Rose, Jr.: Biology; Chemistry<br>Virginia M. Schmitt: Mathematics; Anthropology

## Bachelor of Business Administration <br> Name: Major; 'Minor

*Marilyn L. Malphurs: Business Administration; English
Charles Keith Sayler: Business Administration
COLLEGE OF ENGINEERING
$\begin{array}{lc}\text { Bachelor of Science in Civil. Engineering } \\ \text { William Stanley Davis } & \text { Samuel Loring Johnson } \\ \text { Marvin Eugene Goldberg } & \text { Robert Daniel Statler }\end{array}$

Bachelor of Science in Electrical Engineering<br>Robert Blaine Hanson Harry Michael Hayes Mardoqueo Evaristo Picazo

Bachelor of Science in Mechanical Engineering

*Ruth Ford Kendrick Arthur Lauis Langford, Jr.

Bachelor of Science in Engineering Chemistry
Howard Charles Asbury William Jardine Cook

## Bachelor of Science in Naval Science <br> Lawrence Elliott Hoyt

## COLLEGE OF EDUCATION

## Bachelor of Arts in Education

Name: Major; Minor; Curriculum
Petrita Abeyta: Spanish; Art; Elementary
Mattie Lee Barsh: Dramatic Art; Home Economics; High School
Jean D. Brunetta: English; Spanish; High School
Barbara Louise Denny: Anthropology; Psychology; Elementary
Paulita Lucia Gomez: Sociology; Spanish; Elementary.
*Harriet Jane Johns: Social Studies; English; High School
Margaret Morrow Johnson: Music Education; English; High School
John Milstead: English; History; High School
Priscilla Ann Newcomb: Art; History; High School
Ruth Payton: Social Studies; --; High School
Anna Frances Rice: Music Education; Spanish; High School
*With Distinction

## DEGREES CONFERRED

## Bachelor of Science in Education

Name: Major; Minor; Curriculum
Elsie Beth Alsup: Home Economics; --; Home Economics Maria Brito; Admin. and Superv.; Art; Adm and Sup.
Gertrude Delgado: Admin. and Superv.; Govt. and Citiz.; Adm. and Sup. Katherine L. Hicks: Admin. and Superv.; Psychology; Adm. and Sup. Marion Frances Laughlin: Home Economics; --; Home Econmics Blanche H. Mitchell: Admin. and Superv.; English; Adm. and Sup. Lillian Sundberg Rockett:'Admin. and Superv.; History; Adm. and Sup. Leota King Vinion: Home Economics; -; Home Economics

## COLLEGE OF FINE ARTS

Bachelor of Fine Arts in Art (Painting and Design)
Douglas Gilbert Denniston Geraldine Reynolds Beulah Katherine Sarrels

## Bachelor of Fine Arts in Dramatic Art

Dorothy Jeanne Luker
Gladys Marjoric Pearson Mary Edith Woodbury

## GRADUATE SCHOOL

Master of Arts
Name: Major
Robert L. Briggs: History
Sara Evans Bullock: Education
Theresa Scavarda Campora: Government
Francis C. 'de Baca: English
Sister Ida Catherine Case, O. S. F.; History
Laurel Byron Graham: Education
Whitlowe Radcliffe Green: Education
Rebecca Graham: Government
Susie West Klemos: Government
Katharine Snapp McFall: Education
Hazel Lolita Mason: Mathematics
Candido E. Medina: Education
Harriett O. Munroe: Education
Lila Marie Hardenbrook Russell: Education
Elisa Trujillo: Spanish

## ENROLLMENT STATISTICS

## Classification of Students

Classification of students in the various colleges is based upon the following standards of credit hours earned:

|  | A.bS. | Educ. | Engr. | F.A. | Phar. | Gen. |
| :--- | :---: | :---: | :---: | :---: | :---: | ---: |
| Freshman | $0-28$ | $0-28$ | $0-32$ | $0-32$ | $0-32$ | $0-28$ |
| Sophomore | $29-60$ | $29-60$ | $33-65$ | $33-65$ | $39-65$ | $29-64$ |
| Junior | $61-94$ | $61-94$ | $66-102$ | $66-102$ | $66-102$ |  |
| Senior | $95-$ | $95^{-}$ | $103-$ | $103-$ | $103-$ |  |

Statistics for 1945-46
Because of the enrollment date for Semester III, 1945-46, complete enrollment statistics for the year were not available when this catalog went to press.

|  | Men | Women | Total |
| :---: | :---: | :---: | :---: |
| Semester 1, 1945-46 |  |  |  |
| Civilian | 210 | $34^{1}$ | $55^{1}$ |
| Navy | 372 |  | 372 |
| Total | $5^{82}$ | 341 | 923 |
| Semester II, 1945-46 |  |  |  |
| Civilian | 607 | 789 | 1396 |
| Navy | $4^{16}$ |  | 416 |
| Total | 1023 | 789 | 1812 |
| Semester III, 1945-46 (Incomplete) |  |  |  |
| Civilian | 1089 | 688 | 1777 |
| Navy | 301 |  | 301 |
| Total | 1990 | 688 | 2078 |

## INDEX

Absences, 53
Accounting, see Economics and Business Administration
Accreditment of the University, 17
Activities, see Student Organizations, and Teachers
Administration and Supervision, see Educational Administration
Administrative officers, 7
Admission, general regulations, 26; General College, 187; of Freshmen, 26; of Specials, 29; of Auditors, 30; of Veterans, 30; to Graduate School, 191; to Pharmacy, 181; to SecretaryInterpreters course, 74; to Post-Grad. uate course in Inter-American Relations, 76
Advanced standing, admission with, 28 , 181; examinations for, 35,53
Aeronautical engineering, 118, 125; laboratory, 122
Aid, student, 39
Alumni Association, 25
Alumnus magazine, 25
Anthropology, department of, 78; field sessions, 192; museum of, 21
Application for admission, 26; (blank application at back of catalog)
Application for degree, 55
Archaeology, see Anthropology
Art, department of, 169 ; curriculum, 160; field sessions, 161, 169, 192; supervisors, curriculum for, 146 ; General College course, 188
Art Education, 146
Arts and Sciences, College of, 58; admission to, 26 ; classification of students in, 205; degrees conferred, 200 , 202; departments of instruction, 78; Inter-American Affairs, $6_{5}$; scholarship, 50-52
Assemblies, University, 54
Associated Students, 22
Athletic coaching, curriculum in, 143
Athletics, student, 24; Intercollegiate, 24
Attendance, assembly, 54; class, 53; Freshman Program, $\mathbf{3 1}^{1}$
Auditors, 30
Awards, $4^{0-4^{6}}$
Bachelor's degree, see Degrees
Biology, department of, 82 ; field sessions, 192
Board and room, 37
Border Intercollegiate Athletic Conference, 24
Botany, see Biology
Breakage deposit, 31

Buildings, 19 (campus map at front of catalog)
Bureau of Business Research, 193
Business, courses, $9^{1}$; General College, 189; I.A.A., 73
Business administration, 87, 89
Business Research, Bureau of, 193
Calendar, 3
Campus and buildings, 19 (campus map at front of catalog)
Certificate, admission by, 26
Certification of teachers, 135, 166
Change in address, 50
Change in college, $5^{\circ}$
Change in grade, 48
Change in major or minor, $5^{\circ}$
Change in program of studies, 49; fee, 35
Chemical Engineering, 125
Chemistry, department of, 85
Churches, 24
Civil Engineering, department of, 127; curriculum in, 123; laboratory, 119
Class hours, 47
Classics, 87
Classification of courses, 78
Classification of students, $2055_{5}$
College, change in, 50
Colleges of the University, see Arts and Sciences, Education, Engineer, ing, Fine Arts, General College, Graduate School, Pharmacy
Commencement, 56 ; excuse from, $5^{6}$
Commercial work, curriculum, 147 ; General College, 190; laboratory, 137
Communications Laboratory, 120
Correspondence courses, see Extension Division
Course marking and numbering system, 78
Courses offered, $78,126,148,168,189$; classification of, $7^{8}$
Courses, required for degrees, 55
Credentials, 26
Credit hours, see Semester hours
Curricula, special in Arts and Sciences, 62; in Business Administration, 89; in Education, 141; in Engineering, 122; in Fine Arts, 160; in General College, 188; in Inter-American Affairs, 67 ; in Pharmacy, 182; in Preoccupational Therapy, i67: Navy V-12, 193

Degree requirements,.54, 58, 64, 67, $122,198,160,182,191$
Degrees: conferred, 200; offered, 54,58 , $61,64,67,70,72,87,89,118$, 160 ,

182, 191; with distinction, 56 ; with honors, 56 ; see also Requirements, degrees
Departments of instruction, 78, 126, $148,168,183$
Dietetics, 61, 155
Dining hall, 37; rates, 38,39
Diplomas, fees, 35; General College, 188, 202
Dismissal, honorable, 49
Distinction, degree with, 56
Dividends and penalties, 55
Division of Governmental Research, 18
Doctor of Philosophy, 191
Dormitories, see Residential halls
Dramatic Art; department of, 172; curriculum in, 161
Drawing and Design laboratories, 119
Dry Dock, 24
Economics and Business Administration, department of, 87 ; degree of B.B.A., 89

Education, College of, 135; admission to, 26, 136 ; classification of students in 205; degrees confered, 201, 203; departments of instruction, $14^{8}$; scholarship, 50-52
Education, departments of, 148; laboratories of, 137
Educational Administration, department of, 153 , curriculum in, 146
Educational Psychology, department of, 153
Electives, in Arts and Sciences, 61; in English, 92; in Inter-American Affairs, 70
Electrical Engineering, department of, 130; curriculum in, 123; laboratory of, 119
Elementary Education, department of, 150; curriculum in, 142; laboratory of, 137
Employment, student, 39
Engineering, College of, 118; admission to, 26 ; classification of students in, 205; combined curriculum in A . \& S., 62, 77; degrees conferred, 201, 203; departments of instruction, 126
Engineering, departments of, 127; laboratories of, 119
English, department of, 92; group requirements in, 60, 140; placement test, 92; proficiency examination, 6o; required for admission, 27
Enrollment, see Registration
Enrollment statistics, 205
Entrance, see Admission
Equitation, 157 ; fees, 35 ,
Examinations, 52; advanced standing, 53; entrance, $26,28,31,32,52$; fees, 35; medical, 33; special, 35,52
Exhibitions, 21
Expenses, 34, 46; estimate of, $3^{6}$

Extension courses, 56, 191; addition of, 50
Extension Division, 192; non-resident instructors, 15
Extra-curricular activities, see Student organizations, and Teachers

Faculty, directories, 8; see also Departments of Instruction
Fees, 34, 46
Fellows, graduate, 16
Field sessions, 143, 192
Financial support of the University, 18
Fine Arts, College of, 160; admission to, 26; classification of students in, 205; degrees conferred, 202, 204; departments of instruction, 168 ; gallery, 21
Folklore, 111
Foreign language, group requirements in, 60, 140 ; substitution for, 140
Forestry, see Pre-forestry
Fraternities; honorary, 22; : social, 23
French, 108
Freshmen, admission of, 26
Freshman program, 31
Freshman tests, 26, 32

## G. I. Bill, see Veterans <br> Gallery, Fine Arts, 21

General College, 187; classification of students in, 205; courses in, 78,126 , $148,168,183$; diplomas awarded, 202; scholarship, 50-52.
Geology, department of, 98 ; museum of, 21
German, 108
Geography, 97
Government and Citizenship, department of, 100
Government of the University, 18
Governmental Research, Division of, 18
Grade-points, 48
Grade reports, 48
Grades, 47 ; change in, 48
Graduate Record Examination, 56; fee, 35
Graduate School, 191; course numbering in, $7^{8}$; degrees conferred, 202, 204; diploma fee, 35; fellows, list of, 16; publication fee, 35
Graduation, 56 ; diploma fees, 35 ; requirements, $54,58,64,67,122,138$, 160, 182, 191; with distinction, 56 ; with honors, 56 ; see also Degrees
Graduation exercises, $5^{6}$
Greek, see Classics
Group requirements, 59,140 , see also Departments of Instruction

Health, 78; division of, 156
-Health service, fee for, 34,36 ; medical examinations, 33
High school teachers curriculum, :see

Secondary Education
High Schools, admission from, 26: Statewide tests, $4^{0}$; units, 27
History, department of, 102
History of the University, 17
Home Economics, department of, 154 : curricula, 145,189
Homemaking, General College course, 189
Honor societies, 22
Honorable dismissal, 49
Honors, graduation with, 56
Honors, work, 56
Incomplete, grade of, 48; removal fee, 35
Index, scholarship, 48
Indian Art Field School, 169, 192
Industrial Arts curricula, 126, 148, 189; shop courses, 133
Industrial Electronics Laboratory, 120
Inter-American Affairs, School of, $6_{5}$; scholarships, 67
Inter-American Relations, post-graduate course in, 75
Intercollegiate athletics, 24
Intramural athletics, 24
Italian, 109
Journalism, 62, 93, 94
Laboratories, 119, 137
Languages, see Classics, Modern Languages
Late Registration, 32; fee, 35
Latin, see Classics
Latin-American, see Inter-American
Law, see Pre-law
Library, 19
Library Science, department of, 104
Loan funds, 39
Lobo, 24
Lower division, 59 ; course numbering in, $7^{8}$

Major and minor studies, 60, 138; changes in, $5^{0}$; residence requirements in, 55; see also Departments of Instruction
Marking system, 47
Master classes, music, 35
Master's degree, 191; conferred, 202, 204; in Inter-American Affairs, 72
Mathematics, department of, iog; group requirements in, 60, 141; admission requirements in, 27, 181
Matriculation fee, 34
Maximum number of hours, 61, 136
Measurements Laboratory, 120
Mechanical Engineering, department of, 131; curriculum in, 124; laboratory of, 121
Medical examinations, 33; late fee, 35
Medical technology, 63

Medicine, see Pre-medicine
Meteorolngy, 113
Mexico, National University of. exchange with, $4^{6}$
Military training, 24; see also Naval R. O. T. C.

Minor studies, see Major and minor studies
Mirage, 24
Modern Languages and Literatures, department of, 107
Murals, 21
Museums, 21
Music, department of. 173: General College course, 190; instruction fees, 35: curricula in, 145, 162, 190
Music education, 145
National University of Mexico, exchange with, 46
Naval R. O. T. C., 18, 24, 193
Naval Science and Tactics, 24, 193; degree in, $5^{8,118 ; ~ d e p a r t m e n t ~ o f, ~} 193$
New Mexico Statewide Test of Academic Achievemerr. 40
Non-resident tuition, 34, 35
Normal program of studies, 61. 196
Numbering of courses. 78
Nurses Training, 63
Occupational Therapy, see Pre-occupational therapy
Orchestra, see Music
Organ, see Music
Organizations, student, 22
Orientation :ourses. 55, 78

Painting and design, see Art
Penalties and dividends, 55
Petroleum engineering, 125; laboratory, 122
Ph.D., 191
Philosophy, department of. 11
Photography, 170
Physical Education, department of, 156 ; curricula in, 143; exemption from, 156 ; fees, 35,156 ; required, 55,156
Physical examinations, sec Medical examinations
Physics, department of, 113
Pharmacy, College of, 181; classification of students in, 205: department of instruction, 183
Piano, see Music
Pipe Organ, see Music
Placement bureau, 137, 198
Placement tests, 92, 105, 107
Political Science, see Government and Citizenship
Portuguese, 109
Post-Graduate Course in Inter-American Relations, 75
Power Laboratory; 119
Practice teaching, 137

Pre-forestry, 62
Pre-journalism, 62
Pre-law, 62, 63
Pre-medicine, 62, 63
Pre-professional curriculum, 189
Pre-occupational therapy, 166
Prizes, $40-4^{6}$
Probation, 50-52
Professional and Vocational schools, relation to Arts and Sciences, 58, 62
Program of studies, 61, 122, 136, 160, 182, 188; change in, 49; fee for change, 35
Psychology, department of, 114 ; Educational, department of, 153
Public administration, 64
Public speaking, see English
Publications, 24
Radio, see Electrical Engineering
Recreational facilities, 19
Recreational leadership, curriculum in, 190
Refunds, 36, 39
Regents of the University, 6, 18
Registration, 31; fees, 34; late registration, 32, 35
Regulations, attendance, 31, 53, 54; room, 37; dining hall, 37; general academic, 47; scholarship, 50, 52
Religious activities, 24
Reports, grade, $4^{8}$
Requirements, admission, 27 ; degree, $54,5^{8}, 64,67,122,138,160,182,191$; group, 60, 140; residence, 55 ; specific course 55
Residence requirements, 55 ; in major and minor studies, 55
Resident tuition, 34
Residential halls, 37; guests, 39; refunds, 39
Romance languages, see Modern languages
Room and board, 37
Room regulations, 37
Room reservation, 37
R. O. T. C., see Naval R. O. T. C.

Scholarship, index, 48; regulations, 50, 52
Scholarships, 40; in School of InterAmerican Affairs, 67
Scholastic status, 49
School administrators and supervisors, 146, 153
School of Inter-American Affairs, see Inter-American Affairs
Science, group requirements in, 60, 141; major in, 189 ; required for admission, 27
Secondary Education, department of, 151; curriculum in, 141; laboratory of, 137; recommended majors and minors, 198

Secretarial course, 73; curriculum, 190
Secretary-Interpreters Course, 73
Semester hours, 47
Senior residence requirements. 55
Shop, machine, 121
Shop courses, 133; sec also Industrial Arts
Situation of the University, 17
Social sciences, group requirements in. 6o, 140 ; major in, 139 ; required for admission, 27
Social studies, see Social sciences
Social Work, Training Program, 64
Societies, honor, 22
Sociology, department of, 115
Sororities, social, 23
Spanish, 109
Special curricula, see Curricula
Special examinations, $5^{2}$; fees for, 35
Special students, 29
Speech, see Dramatic Art, English
Statistics, enrollment, 205
Student activities, see Student organizations
Student activities fee, 34, $\mathbf{3}^{\mathbf{6}}$
Student bond fee, 34
Student Council, 22
Student employment, 39
Student loans, 39
Student organizations, 22
Student publications, 24
Student Senate, 22
Summer Session, 15, 192
Support of the University, 18
Suspension, 50-52
Taos, School of Art, 161, 169
Teachers, certification of, 135,166 ; ex-tra-curricular activities for, 186; placement bureau, 137; standards, 195
Tests for freshmen, 26, 32
Thesis, binding fee, 35
Thunderbird, 24
Transcripts, $4^{8}$; fees, 35
Transfer from General College, 187
Transferring students, 28
Tuition, 34
Unclassified students, $\mathbf{3 0}^{0}$
Unit, high school, 27
Upper division, 59; courses numbering in, 78

[^16]Zoology, see Biology

## THE UNIVERSITY OF NEW MEXICO APPLICATION FOR ADMISSION

(This form is to be mailed to the registrar, University of New Mexico Albuquerque, New Mexico)
No Application Will Be Acted upon until All Necessary Transcripts Are Received. Application and Transcripts Are Required at Least One Month Before Opening of Session.


Permanent Address
Present Address if Different
from Permanent Address

Have you been a member of the U. S. Armed Forces? ..------------------
Are You Applying for Admission
under the G. I. Bill 346 ?
Public Law 16 ?
Of What Country Are You a Citizen?
Nationality of Parents: Father $\qquad$ Mother
Underline the college you expect to enter:
Arts and Sciences, Education, Engineering, Fine Arts,
Pharmacy, General College (two-year), Graduate School
Underline the session for which you expect to enroll: Semester I,
Semester II, Summer, Field Session in
From what high school were you graduated?
Location (City and State?)
When?
Have you previously enrolled in the University of New Mexico? $\qquad$
When? $\qquad$ Residence, extension or correspondence?
List all other colleges or universities attended, and dates of attendance:
(Indicate extension or correspondence enrollment also.)
(Failure to comply fully with this request will be considered a serious breach of honor.)
$\qquad$
$\qquad$

Of what college or university are you a graduate?
What degree? $\qquad$ When conferred? $\qquad$
Are you eligible to return to the institution last attended if you desire to do so? $\qquad$ Do you plan to work toward a degree at the University of New Mexico? $\qquad$ Are you having official transcripts sent to us from all institutions attended?
Parent's name and permanent address
or Guardian's name and permanent address

Of what city and state are you a resident?
If a resident of New Mexico, give dates of residence: $\qquad$
I certify that the above information is correct. Dated: $\qquad$
Signed:
(Applicant's usual signature)


$y$



[^0]:    Honor Societies.
    Alpha Kappa Delta-national honorary sociology fraternity
    Delta Phi Delta-national honorary art fraternity

[^1]:    $\ddagger$ Paid once yearly and refundable, less charges.

[^2]:    * Exclusive of hours in non-theoretical physical education and ensemble music.

[^3]:    * Exclusive of hours in non-theoretical physical education and ensemble music.

[^4]:    * Exclusive of hours in non-theoretical physical education and ensemble music.

[^5]:    * Exclusive of hours of non-theoretical physical education and ensemble music.

[^6]:    * If the student fails to pass the placement test, English $A$ is taken the first semester for no credit, and English 1 a is taken in the second semester.
    n Naval Science may be substituted for physical education and one other subject as prescribed by the dean.

[^7]:    * An Orientation Lecture on Inter-American Affairs adequately explaining the nature and scope of this field of study, its importance, and the opportunities opened to its graduates, etc., will be sent free of charge upon request to the director of the School.

[^8]:    *Because of the great usefulness of scientific preparation in the LatinAmerican field, students with ability for science study are urged to devote as many electives as possible to science. On consultation with the director of the School, other science courses not listed as electives will be allowed as such.

[^9]:    * Can be applied toward the Group IV requirement in Mathematics and Science. (See p. 6o.)

[^10]:    * The Spanish and Portuguese courses have the aid of a laboratory of phonetics for intensive oral practice.

[^11]:    ${ }^{1}$ General elective credit in College of Arts and Sciences.
    2 No credit toward a degree in College of Arts and Sciences.

[^12]:    162 L. Electrical Engineering Design Laboratory. (3) Design and testing of electrical circuits and machines. Corequisite: E. E. 151 L. 9 hrs. lab.

[^13]:    *For approved courses, see departments of instruction.

[^14]:    *One of these courses is required.

[^15]:    *With Distinction
    $\dagger$ With Honors.

[^16]:    Veterans, 22, 195; admission of, 30
    Visiting instructors, 15
    Vocal Coaching; fee, 35
    Vocational courses, see General College
    Voice, see Music
    War Credits, 30
    Withdrawal, from the University, 36 , 49

