

BULLETIN
of the
COLLEGE of MINES and METALLURGY
(A Branch of The University of Texas)

EL PASO, TEXAS

Volume XXIV

May 1, 1940

Number 4004

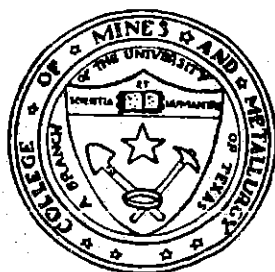
CATALOGUE
NUMBER

for

1939-1940

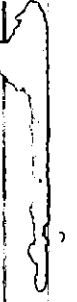
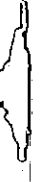
With Announcements for

1940-1941



Published Quarterly by the College of Mines and Metallurgy
A Member of the Southern Association of Colleges

Entered as second-class matter, March 7, 1935, at the post office at El Paso,
Texas, under the Act of August 24, 1912



College of Mines and Metallurgy

(A Branch of The University of Texas)

MEMBER

of

Texas Association of Colleges
Southern Association of Colleges

El Paso, Texas

The benefits of education and of useful knowledge, generally diffused through a community, are essential to the preservation of a free government.

Sam Houston.

Cultivated mind is the guardian genius of Democracy, and while guided and controlled by virtue, the noblest attribute of man. It is the only dictator that freemen acknowledge, and the only security which freemen desire.

Mirabeau B. Lamar.

CONTENTS

	PAGE
Board of Regents	5
Calendar of the College of Mines and Metallurgy	6
Administrative Officers	7
Faculty	7
General Information	
History	11
Location	11
Building and Grounds	12
Library	12
Museum	13
Dormitories	14
General Policies of the College	
General Statement	15
Special Lectures	16
Determinations and Tests	16
General Principles	16
Rock, Minerals, Fossils, Ores, etc.	16
Analyses and Assays	16
Metallurgical Tests	17
Expenses	
Fees and Deposits	17
Housing Regulations for Students	19
Opportunities for Self-Help	20
Loan Funds	20
Scholarships	21
Regulations Affecting Student Life	
Student Guidance	22
Physical Welfare	22
Physical Training	22
Official Non-Athletic Extra-Curricular Student Activities	23
Athletics	25
Conduct	25
Discipline	25
Admission Requirements	
General Requirements	28
General Scholarship Requirements	28
Methods of Obtaining Admission Units	30
Admission by Individual Approval	31
How to Absolve Admission Conditions	32
Students from Other Colleges	32
Mining and Metallurgy	33
Scholastic Regulation	
Registration	34
Explanation of Courses	34
Amount of Work	35
Adding and Dropping Courses	35
Class Attendance and Absences	36
Official Bulletin Boards	36
Examinations	36
Grades of Scholarship	37
Reports	39
Honors	39
Classification of Students	39
Standard of Work Required	40

Requirements for Degrees and Certificates	
Study of Constitution of United States and Texas Required.....	44
Engineer of Mines	44
Bachelor of Science in Mining Engineering	44
Bachelor of Arts	48
Business Administration Major	52
Economics Major	53
Education Major	54
English Major	55
History Major	56
Modern Language Major	57
Music Majors	58
Science Major	60
Preliminary Work for Other Degrees	61
Selection of Courses	61
Work Preparatory to Law	61
Work Preparatory to Medicine	61
Work Preliminary to Other Engineering Degrees	61
State Teachers' Certificate	62
Courses of Instruction	
Biological Sciences	63
Chemistry	65
Design and Interior Decorating	72
Economics and Business Administration	66
Education and Physical Education	73
Engineering and Drawing	77
English, Journalism, and Public Speaking	79
Geology	84
History, Government, and Sociology	85
Mathematics and Physics	89
Mining and Metallurgy	92
Modern Languages	95
Music	98
Philosophy and Psychology	100
Degrees Conferred in 1939	102
Register of Students	
Long Session, 1938-1939	104
Summer Session, 1939	113
Statistical Summaries	117
Index	119

BOARD OF REGENTS

OFFICERS

J. R. PARTEN, Chairman
LESLIE WAGGENER, Vice-Chairman
LEO C. HAYNES, Secretary

MEMBERS

Terms Expire January, 1941

GEORGE D. MORGAN San Angelo
J. R. PARTEN Houston
EDWARD RANDALL Galveston

Terms Expire January, 1943

E. J. BLACKERT Victoria
LESLIE WAGGENER Dallas
H. H. WEINERT Seguin

Terms Expire January, 1945

K. H. AYNESWORTH Waco
MRS. I. D. FAIRCHILD Lufkin
H. J. LUTCHER STARK Orange

STANDING COMMITTEES

ATHLETICS: Weinert, Stark, Parten.
AUDITING: Stark, Morgan, Waggener.
BUILDING: Mrs. Fairchild, Blackert, Stark.
COLLEGE OF MINES: Morgan, Mrs. Fairchild, Weinert.
COMPLAINTS AND GRIEVANCES: Stark, Mrs. Fairchild, Waggener.
EXECUTIVE: Randall, Stark, Parten.
FINANCE: Waggener, Blackert, Weinert.
LAND: Morgan, Weinert, Parten.
LEGISLATIVE: Parten, Blackert, Weinert.
LIBRARY: Aynesworth, Stark, Waggener.
MEDICAL: Randall, Aynesworth, Parten.
PUBLIC RELATIONS: Blackert, Aynesworth, Morgan.
BOARD FOR LEASE OF UNIVERSITY LANDS: Aynesworth, Mrs. Fairchild.

CALENDAR
of
THE COLLEGE OF MINES AND METALLURGY

1940

JUNE 17, MONDAY. Section 1 of Summer Surveying begins.
JULY 15, MONDAY. Section 2 of Summer Surveying begins.
SEPTEMBER 5, THURSDAY. Examinations for admission.
SEPTEMBER 9, MONDAY. Condition, advanced standing, and postponed examinations. Petitions must be in the office of the Registrar not later than September 5.
SEPTEMBER 10, TUESDAY. Freshman convocation at 9:00 a. m.
SEPTEMBER 10, TUESDAY. Faculty registration conference at 2:00 p. m.
SEPTEMBER 11-12, WEDNESDAY-THURSDAY. Registration.
SEPTEMBER 13, FRIDAY. Classes begin.
SEPTEMBER 19, THURSDAY. Deferred examinations.
SEPTEMBER 21, SATURDAY. Last day students may add or substitute courses.
SEPTEMBER 21, SATURDAY. Last day of registration for the first semester.
NOVEMBER 11, MONDAY. Armistice Day, holiday.
NOVEMBER 21-23, THURSDAY-SATURDAY. Thanksgiving recess.
DECEMBER 17, TUESDAY. Christmas recess begins at the close of the last class which meets on Tuesday.

1941

JANUARY 2, THURSDAY. Classes are resumed.
JANUARY 20-27, MONDAY-MONDAY. Examination for the first semester.
JANUARY 22, WEDNESDAY. Examinations for admission.
JANUARY 23, THURSDAY. Freshman convocation at 9:00 a. m.
JANUARY 24-27, FRIDAY-MONDAY. Registration of new students.
JANUARY 28, TUESDAY. Advanced standing examinations.
JANUARY 29, WEDNESDAY. Registration of readmission students.
JANUARY 30, THURSDAY. Classes begin.
FEBRUARY 1, SATURDAY. Condition and postponed examinations. (Not for Engineering students.)
FEBRUARY 6, THURSDAY. Last day students may add or substitute courses.
FEBRUARY 6, THURSDAY. Last day for registration in the second semester.
APRIL 11-14, FRIDAY-MONDAY. Easter holidays.
MAY 3, SATURDAY, Major examinations.
MAY 23-30, FRIDAY-FRIDAY. Examinations for the second semester.
MAY 23-30, FRIDAY-FRIDAY. Senior week.
MAY 31, SATURDAY. Alumni and class day.
JUNE 1, SUNDAY. Baccalaureate Services.
JUNE 2, MONDAY. Commencement.

COLLEGE OF MINES AND METALLURGY

ADMINISTRATIVE OFFICERS

- DOSSIE MARION WIGGINS, Ph. D., President.
B. A., Simmons, 1919; M. A., Yale, 1925; Ph. D., 1930.
- CHARLES ALEXANDER PUCKETT, M. A., Dean of Arts and Sciences.
- JOHN WILLIAM KIDD, E. E., Dean of Engineering; Superintendent of Buildings and Grounds.
- NORMA EGG, M. A., Dean of Women.
- FRANK JUNELL, M. A., Registrar; Director of Publicity.
B. A., Hardin-Simmons, 1934; M. A., Missouri, 1937.
- MARSHALL LEE PENNINGTON, B.B.A., Business Manager and Instructor.
B. B. A., Texas, 1935.
- BAXTER POLK, B. S., Librarian.
B. A., Hardin-Simmons, 1935; B. S. (Library Science), Oklahoma, 1936.
- BURT FRANKLIN JENNESS, M. D., Health Officer.
- MARY ELLA POOL, B. S., Director of Dormitories.
B. S., Texas, 1930.
- MRS. LOUISE F. RESLEY, B. A., Social Director of Dormitory for Women.
- WILLIAM S. STRAIN, M. S., Curator of Museum.
- *FORREST JACK AGEE, M. A., Director of Student Life.

FACULTY

PROFESSORS

- FREDERICK WILLIAM BACHMANN, Professor of Modern Languages.
B. A., Stanford, 1922; M. A., 1924; Ph. D., Chicago, 1931.
- ANTON HELMER BERKMAN, Professor of Biological Sciences.
B. A., Texas, 1924; M. A., 1926; Ph. D., Chicago, 1936.
- JOHN FRASER GRAHAM, Professor of Mining and Metallurgy.
B. S., Michigan College of Mining and Technology, 1905; E. M., 1924.
- JOHN WILLIAM KIDD, Professor of Engineering.
B. S., Oklahoma Agricultural and Mechanical College, 1904; E. E., Texas Agricultural and Mechanical College, 1909.
- EDWIN JOHN KNAPP, Professor of Mathematics and Physics.
Ph. B., Wisconsin, 1921; Ph. D., 1931.
- THOMAS ERL MORRIS, Professor of Economics and Business Administration.
B. B. A., Texas, 1931; M. B. A., 1932.
- CHARLES ALEXANDER PUCKETT, Professor of Education.
B. A., Texas, 1911; M. A., Harvard, 1916.
- HOWARD EDMUND QUINN, Professor of Geology.
E. M. (Geology), Minnesota, 1918; M. S., 1926; Ph. D., Harvard, 1932.

* On leave, 1939-1940 session.

- JOSEPH MOSES ROTH**, Professor of Philosophy and Psychology.
B. A., New York University, 1919; M. A., 1920; Ph. D., 1923.
- FRANKLIN HUPP SEAMON**, Professor of Chemistry.
M. E., Missouri School of Mines, 1891.
- CHARLES LELAND SONNICHSEN**, Professor of English.
B. A. Minnesota, 1924; M. A., Harvard, 1927; Ph. D., 1931.
- JOHN LEROY WALLER**, Professor of History.
B. S., Oklahoma, 1923; M. A. Colorado, 1925; Ph. D., Texas, 1929.

ASSOCIATE PROFESSORS

- ***FORREST JACK AGEE**, Associate Professor of Education.
B. A., Howard Payne, 1928; M. Ed., Texas, 1937.
- PEARL WHITFIELD DURKEE**, Associate Professor of Physics.
B. A., Acadia University, 1903; B. S. (Electrical Engineering), McGill University, 1906; M. S., Cornell, 1935.
- WILLIAM WALTER LAKE**, Associate Professor of Chemistry.
B. S., Ohio State, 1913; M. S., 1921.
- LLOYD ALVINO NELSON**, Associate Professor of Geology.
E. M., Texas College of Mines, 1916; M. S. (Geology), Colorado, 1929;
Ph. D., 1937.
- ****ALVIN EDWARD NULL**, Associate Professor of History.
B. A., Indiana, 1910; M. A., Chicago, 1926.
- MACK SAXON**, Associate Professor of Physical Training.
- EUGENE McRAE THOMAS**, Associate Professor of Mining and Metallurgy.
B. S. (Mining Engineering), Texas College of Mines, 1926; M. S.,
Massachusetts Institute of Technology, 1939.
- MRS. ISABELLA CORBETT ZIMMERMAN**, Associate Professor of English.
B. A., Occidental, 1925; M. A., 1926; Ph. D., University of Southern
California, 1934.

ASSISTANT PROFESSORS

- WILLIAM ROBERT AVRETT**, Assistant Professor of Modern Languages.
B. A., Texas, 1927; M. A., 1928.
- FLOYD ARCHIE DECKER**, Assistant Professor of Engineering.
B. S., (Electrical Engineering), Kansas State College, 1927; E. E.
1932.
- NORMA EGG**, Assistant Professor of English.
B. A. Texas, 1913; M. A. 1928.
- MRS. LENA ELDRIDGE**, Assistant Professor of Modern Languages.
B. A., New Mexico Normal University, 1919; M. A., Washington, 1927.
- GLADYS GREGORY**, Assistant Professor of Government.
B. A., Southwestern, 1915; M. A., Texas, 1926; Ph. D., 1937.
- LUCY CLAIRE HOARD**, Assistant Professor of Education.
B. A., State College, San Diego, California, 1929; M. A., Columbia,
1934.

* On leave, 1939-1940 session.

** Died January 5, 1940.

FACULTY

9

- BURT FRANKLIN JENNESS, Assistant Professor of Biological Sciences.
M. D., Dartmouth, 1899; Lt. Comdr. M. C., U. S. Navy Rtd.
- GLEN R. JOHNSON, Assistant Professor of Music; Director of Band and
Glee Clubs.
B. A., Baylor University, 1936.
- LEON DENNY MOSES, Assistant Professor of English.
B. A., Columbia 1923; M. A., 1924.
- RICHARD HUBBELL OLMSTED, Assistant Professor of Modern Languages.
B. A., Minnesota, 1922; M. A., 1932; Ph. D., 1934.
- MRS. MARY KELLY QUINN, Assistant Professor of Sociology.
B. A., Wellesley, 1922; M. A., Boston University, 1930.
- NATHAN SCHWID, Assistant Professor of Engineering and Mathematics.
B. A., Wisconsin, 1930; M. A., 1932; Ph. D., 1934.
- MAC FRANCES SMITH, Assistant Professor of Economics and Business
Administration.
B. B. A., Texas, 1931; M. B. A., 1934.
- *JOHN W. STORMONT, Assistant Professor of History.
B. A., Austin College, 1928; M. A. Texas, 1936.
- REX WALLACE STRICKLAND, Assistant Professor of History.
B. A., Austin College, 1927; M. A., Southern Methodist University,
1929; Ph. D., Texas, 1937.

INSTRUCTORS

- WILLIAM HENRY BALL, Instructor in Chemistry.
B. S., Chicago, 1922; M. S., Iowa State College, 1925.
- MRS. MYRTLE EVELYN BALL, Instructor in Public Speaking.
B. A., New Mexico Normal University, 1926.
- THOMAS GROGARD BARNES, Instructor in Mathematics.
B. A., Hardin-Simmons, 1933; M. S., Brown, 1936.
- CHARLES EDWARD BOUNDS, Instructor in Journalism.
B. A., Missouri, 1939; B. J., 1939.
- MRS. ISABELLE KELLY FINEAU, Instructor in Modern Languages.
B. A., Texas, 1905; M. A., 1931.
- JOSEPH HOPKINS JAMES, JR., Instructor in English.
B. A., Alabama, 1929; M. A., 1931.
- MRS. JULIA IDA KANE, Instructor in Physical Education.
B. A., North Dakota, 1919; M. A., Arizona, 1930.
- VIRGINIA DEAN KING, Instructor (Part-time) in English.
B. A., Wellesley, 1936; M. A., University of California at Los
Angeles, 1937.
- JOSEPH S. LEECH, Instructor in Mathematics and Engineering.
B. A., Oklahoma, 1927; M. A., 1928.
- BULAH A. LILES, Instructor in Mathematics.
B. A., Texas, 1921; M. A., Chicago, 1927.
- MRS. ELIZABETH Y. NEALON, Instructor in English.
B. A. Converse College, 1901.

* Second semester 1939-1940 only.

10 COLLEGE OF MINES AND METALLURGY

- HARRY B. PHILLIPS, Instructor in Physical Education.
B. A., Texas College of Mines, 1933.
- PEARL OLIVE PONSFORD, Instructor in English.
B. A. Wellesley, 1919; M. A., University of Southern California, 1930;
Ph. D., 1935.
- MRS. LOUISE F. RESLEY, Instructor in Mathematics.
B. A., Texas College of Mines, 1939.
- MRS. BERTHA REYNOLDS, Instructor in Education.
B. A., Colorado, 1921; M. A., 1922.
- JACKIE ROE, Instructor in Music.
B. A., Texas College of Arts and Industries, 1939.
- GEORGE PERRY STEEN, Instructor in Engineering.
B. S. (Civil Engineering), Missouri School of Mines, 1933; M. S., 1938.
- WILLIAM S. STRAIN, Instructor in Geology.
B. S., West Texas State Teachers College, 1932; M. S., Oklahoma, 1937.
- VERA WISE, Instructor in Design and Interior Decorating.
B. A., Willamette University, 1920; Chicago Academy of Fine Arts;
Kansas City Art Institute.

ASSISTANTS

- NOEL ALTON, Assistant in the Department of Mathematics and Physics.
- JULIUS CARRERA, Laboratory Assistant in the Department of Chemistry.
- RICHARD JENNESS, Laboratory Assistant in the Department of Economics and Business Administration.
- FRANK W. MORGAN, Laboratory Assistant in the Department of Geology.
B. A. Texas, 1939.
- JOE SAM WILLIS, Laboratory Assistant in the Department of Biological Sciences.
B. A., Texas College of Mines, 1929.

ADMINISTRATIVE ASSISTANTS

- MRS. MONICA G. ADAMS, Assistant (Part-time) in the Museum.
- JOHNELL CRIMEN, Clerk in Office of the Business Manager.
B. A., Texas College of Mines, 1938.
- MARJORIE ERWIN, Assistant Librarian.
B. A., Texas College of Mines, 1934; B. S. (Library Science), Pratt Institute, 1935.
- MRS. MAURINE SMITH JERRELL, Assistant Business Manager.
B. A., Texas College of Mines, 1935.
- FRANCES LUELLA JOB, Secretary, Office of Registrar.
B. A. Texas College of Mines, 1935.
- MRS. ISABEL AEDOU JOSEPH, Clerk in Office of Business Manager.
B. A., Texas College of Mines, 1933.
- MRS. ELIZABETH Y. NEALON, Assistant Librarian and Instructor.
B. A., Converse, 1901.
- MARGARET NEELY, Secretary to Faculty.
- VAYNE PORTER, Assistant Registrar.
- *MAXINE E. ROPER, Clerk in office of the Registrar.
B. A., Texas College of Mines, 1939.
- MRS. FRANCES SMITH STEVENS, Secretary to the President.
- **BETTY JOE YOUNG, Switchboard Operator.

*Resigned, February 1, 1940.

**Appointed February 1, 1940.

GENERAL INFORMATION

HISTORY

An announcement of a course in mining first appeared in The University of Texas catalogue in 1900-1901. From then until the session of 1910-1911, an arrangement of courses leading to the degree of Mining Engineer appeared annually. The catalogue of that year contained a statement that thereafter freshmen would not be enrolled in mining, and the arrangement of courses leading to a degree in that subject was subsequently omitted.

The Thirty-third Legislature, at its regular session in 1913, passed an act creating the State School of Mines and Metallurgy, to be located in El Paso. By the terms of the act, the School of Mines was placed under the control of the Board of Regents of The University of Texas. Early in 1919, by act of the Thirty-sixth Legislature, the school was made a branch of the University of Texas.

The location of the school at El Paso was conditioned upon the donation by the city of the former Military Institute buildings and grounds. The necessary funds for this donation were secured through the activity of the Chamber of Commerce, and the school was opened in September, 1914. On October 29, 1916, the Main Building burned. It was then decided to remove the institution to a more suitable site on the west side of Mount Franklin, donated for that purpose. The Thirty-fifth Legislature voted an emergency appropriation of \$100,000 to erect new buildings.

In 1927 the Legislature authorized further expansion along academic lines.

In 1931 the Board of Regents authorized the conferring of the Bachelor of Arts degree, vesting administrative powers in a President.

LOCATION

Texas is the largest and most populous state which supports a separate college of mining and metallurgy. The location of the College of Mines and Metallurgy is advantageous in several ways. The City of El Paso stands at the crossing of several of the oldest highways established by white men on this continent. With a population of 100,000, more than 30 per cent of which is engaged in technical industries, it is the most important city south of Denver, between San Antonio or Fort Worth and Los Angeles.

El Paso's primary resources include mining, agriculture, livestock, and timber. The United States Government has spent \$10,000,000 on a great irrigation project to provide a cheap and unfailing water supply for the Rio Grande Valley above and below El Paso.

Its extreme dryness and medium latitude, combined with a moderately high altitude (3800 feet), give El Paso a delightful and healthful climate all the year round.

Within a radius of from one to ten miles of El Paso are found in great variety those geological formations and structures that are usually associated with the mineral industry, not only in metal mining, but in coal mining, oil fields, and non-metallic deposits as well. In opportunity for geological study, no mining school in the United States is more favorably located.

El Paso is the industrial center of a large area, and is especially suitable for the location of a college instructing in mining, metallurgy, engineering, the sciences, and technology. The second largest custom smelter

in the world is situated about a mile from the College of Mines and Metallurgy. It uses the most modern methods of smelting and treating ores containing copper, lead, gold, silver, and other metals. Within a few miles is also the most modern electrolytic copper refinery, which has a capacity of 20,000,000 pounds of copper in process. There are also nearby a large cement plant, two large brick plants, and three oil refineries. Various manufactories of lime, tile, and other non-metallics are located in the immediate neighborhood of the College. There are other varied industries, such as cotton spinning and weaving mills, cotton oil mills, wood-working mills, etc. There are also large power plants and sub-stations, foundries, machine shops, and other service enterprises of technical nature. Thus it will be seen that the environment is highly favorable for first-class instruction in engineering and technology, all of the industries cooperating fully with the College to this end.

BUILDINGS AND GROUNDS

The campus consists of forty-eight acres. There are thirteen buildings, as follows: Library and Administration Building, Main Building, Holliday Hall (the gymnasium), Burges Hall, Chemistry Building, Kelly Hall, Seamon Hall, Engineering Building, Museum Building, a dormitory for women, a dormitory for men, a mill, and a small dressing-room for women, donated by the Woman's Association of the College of Mines. The Main Building contains various lecture rooms, and laboratories for the departments of physics and geology. The Chemistry Building houses the laboratories for chemistry and assaying. In the Engineering Building are located the engineering laboratories and the heating plant. Burges Hall houses the biological laboratories, offices, and lecture rooms. Kelly Hall is used for lecture rooms and offices. The mill contains machinery for the testing of ores. Seamon Hall houses metallurgy equipment and laboratories. All the buildings except the mill are of stone and are fireproof. The City of El Paso is holding a reservation of approximately fifteen acres for the future use of the College.

THE LIBRARY

The book collection of 22,500 volumes is housed in the beautiful new library building, situated between the two main building groups on the campus. The nucleus of the book collection was the library of the late W. H. Seamon, a mining engineer and member of the faculty. His legacy has been augmented by gift and by purchase from year to year. Noteworthy among these gifts is the library of the late Dr. Hugh W. Crouse—a collection of books and periodicals pertaining to every phase of medicine and surgery. The geology, mining, language, economics and medicine sections of the library are especially strong. The library is a depository for a select group of government publications and contains an invaluable collection of United States Geological Survey and Bureau of Mines bulletins, some volumes of which are no longer obtainable.

The library regularly receives 260 periodicals—literary, scientific, and technical. Files of these are being accumulated, bound, and preserved, forming a valuable reference collection. There is also a very up-to-date pamphlet collection of miscellaneous subjects to which the students are given full access.

Students are given full use of the excellent facilities of the El Paso Public Library, a collection of 111,459 books, pamphlets, and documents. The Public Library contains an especially strong collection of literature pertaining to the Southwest. The Teachers' Library of El Paso Public Schools may also be used. It is located in the Administrative building of the El Paso Public Schools.

MUSEUM

The El Paso Centennial Museum, allocated by the Commission of Control for the Texas Centennial Celebrations, was erected by the State under the supervision of the State Board of Control at a cost of \$50,000. This thoroughly modern and spacious museum building was located on the campus of the College of Mines through the authority of the El Paso County Advisory Committee. It is beautifully situated and graces the entire college campus. The College is truly proud of it and will devote every effort toward the development of a great museum for the entire Southwest. The public is welcome to visit the Museum and students will find an excellent opportunity for studying the various phases in the evolution of the civilization of this part of the country.

The mineralogical collection is especially fine. It includes the Reckhart collection and the Ledwidge collection, a gift of the Women's Auxiliary of the College, in addition to many other beautiful and rare specimens of minerals and ores that have been supplied to the College by purchase and by gift from mining men and geologists of the Southwest.

The paleontological collections are excellent. The invertebrate paleontological material comprises a splendid study group, containing specimens from most of the important geological horizons of the United States and particularly of Texas. There is also a fine group of specimens from European horizons.

Through the cooperation and assistance of the Works Progress Administration a large quantity of dinosaur bones, comprising a mountable skeleton, have recently been secured for the Museum. Additional vertebrate paleontological material consists of a collection of Pleistocene mammals principally *Elephas* remains.

Valuable additions have been made to the historical collection recently, through the loan of the El Paso Pioneer's Association and the El Paso Volunteer Firemen's Association collections. Both collections are a source of much valuable information pertaining to the early history of El Paso and the Southwest.

The biological collection, composed of both zoological and botanical specimens, occupies space both in the El Paso Centennial Museum and on the third floor of Burges Hall. The zoological collection includes preserved specimens and skeleton material representing the classes and orders of the vertebrates, arranged for study of comparative anatomy, and preserved material representing the phyla and classes of marine and land invertebrates. Dried specimens of the local flora, ferns from the various regions of North America, and preserved fungi of the local region make up the botanical collection.

The archeological collections have been greatly augmented through the gifts of the Women's Auxiliary of the College, and the permanent loan of the El Paso Archeological Society Collection. These collections in-

clude some of the finest archeological specimens to be found in Texas, especially those of Chihuahua, Chupadero and El Paso Polychrome pottery. The Museum has recently acquired some excellent El Paso Polychrome Pottery and is constantly adding to the archeological collections by field work.

The Museum is being developed as an auxiliary instructional device, particularly in the science fields. The collections are therefore arranged with special preference to educational use.

DORMITORIES

Two modern residence halls one for women and one for men, made possible through the Public Works Administration, are operated for the convenience of boarding students. The hall for men accommodates sixty students and the hall for women provides ample facilities for forty students. The dining room for both men and women is located on the first floor of the residence hall for women. The student rooms are attractively furnished. Each room has ample closet space and full-length mirrors are provided in each room of the hall for women. Separate study tables with large size study lamps are provided for each student. The buildings are fire-proof, steam heated, and are located at a most convenient place on the campus. They are under the supervision of a manager well trained in dormitory housing and management.

GENERAL POLICIES OF THE COLLEGE

GENERAL STATEMENT

The College offers the degree of Bachelor of Science in Mining Engineering and the degree of Bachelor of Arts with liberal choices of major subjects in both instances. Students are encouraged to determine as early as is possible their choice in pursuing the work leading to each of these degrees.

The College seeks to provide liberal education for its engineering students. In scientific and technical subjects the student's knowledge is reinforced by such practice and application as to prepare him for entrance into the industries, especially those related to the natural resources of Texas. Various of the many industries of the region cooperate with the College to promote the technical and general knowledge of the students. The Faculty is experienced and expert.

A study of the requirements leading to the degree of Bachelor of Arts which are shown in tabular form will indicate the high standard of work as outlined. Students may be certain of obtaining a fundamental, dependable, and general education applicable to further progress in professions, teaching, and general activities of life.

Both the academic and technical courses offered in the Engineering School are sufficient to enable students wishing to graduate in other lines of engineering to complete in this College at least two years of work leading to degrees in the various scientific, engineering and technical branches, as offered by other institutions.

The College of Mines and Metallurgy gives undergraduate instruction to resident students only. No extension classes are provided off the campus, nor are correspondence courses given. However, an attempt is made through general correspondence to aid worthy citizens of the State, who are engaged in mining or prospecting, by giving them suitable advice on application.

Without entailing graduate study at the College, the degree of Engineering of Mines is granted, subject to regulations made by the Faculty and approved by the Regents, to those graduates of the College prior to 1931, who have demonstrated proficiency in responsible positions and who have made a written contribution of some importance regarding some phase of their work.

As an agency for furthering the best development of the State, the principal duty and major interest of the College lie in advancing and perfecting knowledge of mining and metallurgy as applied to the natural resources of the State by means of research and cooperation with existing agencies and industries. Future efforts and developments will probably be largely concerned with salts and minerals of potash, soda, fluorine, and mercury, as well as with those of gold, silver, copper, lead, and zinc.

The College also acts as an examination center for other agencies and institutions, such as the College Entrance Examination Board, the American College of Life Underwriters, etc.

SPECIAL LECTURES

During the long session, prominent lecturers, educators and specialists address the student body and Faculty. These lectures, held at special convocations, extra class meetings, seminars, or gatherings of the several student organizations, are free.

The student has also ample opportunity of participating in and enjoying the civic, cultural, and artistic efforts of the local community.

DETERMINATIONS AND TESTS

General Principles.—The College of Mines and Metallurgy is charged with teaching and research in mining, metallurgy, and allied subjects in order to further the safe and economical development and exploitation of the natural resources of the State. In order to advance this object the College is glad to receive gifts of materials for determinations or tests, whether or not they originate within the State. Such work will be done free of charge, but it should be borne in mind that the College will not compete with regularly established consultants, but will rather direct, supplement, and advance their work along new or more advanced lines. Persons shipping materials to the College must prepay all freight charges, and, upon agreement, the charges which they have to incur with outside consultants, such as charges for assays, etc. All such materials shipped to the College must be regarded as gifts to it, and become its property upon receipt. The determinative and testing work will be done largely by advanced students under the personal direction of a suitable professor in charge, and will be carefully checked to insure that the results are as precise as the material and tests warrant. Beyond this the College can not assume responsibility. Since all work done by students becomes part of their regular schedules, the rapidity of determinative and testing work depends upon the number of advanced students and the condition of their schedules. The College is glad to assist in the solution of any problem allied to its objectives, and to incorporate them in its regular instructional and research work. Shipments should be made, and correspondence and inquiries addressed, to the President, College of Mines and Metallurgy, El Paso, Texas.

Rocks, Minerals, Fossils, Ores, Geological Specimens.—Rocks, minerals, fossils, ores, and other geological specimens will be received gladly for determination and incorporation in the Museum and working collections. Acknowledgement is always accorded to donors. Materials are generally studied first from a geological and mineralogical point of view before being referred to other departments as indicated below. Collectors and museums may find it advantageous to correspond with the College to arrange exchanges and sales of important material.

Analyses and Assays.—The College will not make analyses or assays in competition with professional consultants. Those who have special reasons for wishing work done should write to the President explaining the circumstances.

EXPENSES

17

Metallurgical Tests.—Shippers of ores desiring tests for process of treatment should see to it that the material submitted is a representative or average sample of the part of the mineral deposit concerned; otherwise, the results of the testing will be commercially worthless.

EXPENSES

FEES AND DEPOSITS

Registration and laboratory fees are payable on a semester basis at the beginning of each semester. Students are not permitted to enter class or laboratory until their fees and deposits have been paid.

Tuition.—Resident Students: Each resident student is required to pay tuition at the following rate for each semester:

12 or more semester hours	\$25.00
11 semester hours	22.92
10 semester hours	20.83
9 semester hours	18.75
8 semester hours	16.67
7 semester hours	14.58
6 semester hours	12.50
5 semester hours	10.42
4 semester hours	8.33
3 semester hours	7.50

Non-Resident Students: Each non-resident student who registers for twelve or more semester hours of work per semester is required to pay tuition in the amount equivalent to the amount charged students from Texas by similar schools in the State of which the said non-resident student is a resident, said amount to be determined and fixed by the Board of Regents, but in no event will such amount be less than that charged to students resident in Texas.

Each non-resident student who registers for less than twelve semester hours of work per semester is required to pay a sum proportionately less than that prescribed for non-resident students taking twelve or more semester hours per semester, but in no event will such amount be less than \$7.50.

A non-resident student is defined to be a student of less than twenty-one years of age, living away from his family and whose family resides in another state, or whose family has resided in Texas for a period of time less than twelve months prior to the date of registration, or a student of twenty-one years of age or over who resides out of Texas or who has resided in Texas for a period of less than twelve months prior to the date of registration.*

*Sections of the non-resident fee law have been interpreted by the Attorney General of Texas to mean that: (1) a minor cannot acquire a domicile of choice during his minority; (2) the residence of a minor follows that of the father, or if the father is dead, that of the mother; (3) if both parents are dead the residence of the minor follows that of the grand-

18 COLLEGE OF MINES AND METALLURGY

Information concerning the tuition required of non-resident students can be secured from the Business Manager.

Refund of Registration and Tuition Fee.—Refund of the registration and tuition fee is made under the following conditions and no others:

Upon presentation to the Registrar of his receipt from the Business Manager showing payment of the fee any student withdrawing officially (a) during the first week of class work of a semester will receive a refund of 70 per cent of the **applicable portion of the fee**; (b) during the second week, 60 per cent; (c) during the third week, 40 per cent; (d) during the fourth week, 20 per cent; (e) during the fifth week and thereafter, nothing.

In no case shall the total refund exceed 70 per cent of the registration and tuition fees paid.

An immediate refund will not be made to a student who withdraws within fifteen days after the payment of his fees, but, upon request, a check covering all refunds due will be mailed to the address left with the Business Manager.

A student who enters the second semester, not knowing his first semester grades, and is required to withdraw because of failure in the work of the first semester will have all of his registration and tuition fee for the second semester refunded.

No refund provided for above will be granted unless applied for within one year after official withdrawal.

Sections of the non-resident fee law have been interpreted by the Attorney General of Texas to mean that: (1) a minor cannot acquire a domicile of choice during his minority; (2) the residence of a minor follows that of the father, or if the father is dead, that of the mother; (3) if both parents are dead the residence of the minor follows that of the grandparent provided the minor lives with the grandparent; (4) the minor whose parents and grandparents are dead would not be assigned the domicile of any other relative with whom he lived; (5) a self-supporting minor who comes to Texas after the death of his parents who are residents of another state is a nonresident; (6) a person over twenty-one years of age must reside in Texas at least twelve months after attaining his majority in order to be classified as a resident student.

Laboratory Fees.—For each course of three semesters hours or less which is accompanied by laboratory work, a fee of \$2.00 is charged, and for each such course of four hours or more, a laboratory fee of \$4.00 is charged.

General property deposit.—Every student must make a general property deposit of \$7.00. This deposit is subject to charges for property loss or damages or breakage or violation of rules in any College library or laboratory, failure to return keys furnished by the College, or for damage

parent, provided the minor lives with the grandparent; (4) the minor whose parents and grandparents are dead would not be assigned the domicile of any other relatives with whom he lived; (5) a self-supporting minor who comes to Texas after the death of his parents who are residents of another state is a non-resident; (6) a person over twenty-one years of age must reside in Texas at least twelve months after attaining his majority in order to be classified as a resident student.

CHANGES

Class Schedule



Fall 1976

SUPPLEMENT TO THE FALL 1976 CLASS SCHEDULE

This supplement provides a complete listing of changes to the printed Class Schedule for the Fall Semester 1976. Listed herein are all CHANGES, DELETES and NEW Classes that have been made through Wednesday, August 18, 1976. The reason for each entry is listed on the right. The word CHANGE indicates that some information in a class entry that was listed in the printed schedule has been changed. The information that has been changed has been underlined. All other information on the line that has not been underlined is the same as that listed in the printed schedule. The word DELETE indicates that the course listed in the printed schedule is not being offered. The word NEW indicates a course that is being offered in the Fall Semester 1976 that is not listed in the printed schedule.

To facilitate record keeping and to assist students desiring a schedule of Evening classes, all sections of a class which begin at 1730 (5:30 in the evening) and later have been numbered as sections 90 and 91 through as many of the 90 series as are needed to accommodate the total class section offerings. The only exception is the evening classes offered at Fort Bliss. These have been numbered as sections 80 and 81. All other sections of the courses being offered are numbered in sequence from 01 through the necessary final number. To further assist you, all of the Fort Bliss Classes are listed on page 38 and all evening classes taught on campus are listed on pages 49, 40 and 41 of the printed class schedule.

CHANGES IN BUILDING NOMENCLATURE

During the past summer, many changes have occurred on this campus. With the completion and occupancy of the Science and Engineering Complex, it became necessary to rename several of the Buildings. Department Offices have been moved not only into the new buildings but also into buildings that were vacated as a result of this increase in buildings. The Department and College offices are correctly listed on pages 8-9 of the Class Schedule. Several of the buildings have been renamed to more closely agree to the function they now serve.

Old Biology Building	<u>is now</u>	Psychology Building (PSY)
Old Engineering	<u>is now</u>	Geology Building (G)
Old Geology Building	<u>is now</u>	Geology Annex (GA)

IN THE NEW SCIENCE AND ENGINEERING COMPLEX ARE LOCATED

- Classroom Building (CRB)
- Biology Building (BI)
- Engineering Building (E)
- Metallurgy Building (MET)

SPECIAL NOTICE: The time listed on page 4 of the printed schedule for the examination for classes that meet TWThF, TWTh, TTh, T, or Th at 0800 in the morning should read 7:00-1000 AM.

SCHEDULE CHANGES

COLLEGE OF BUSINESS ADMINISTRATION

DEPARTMENT OF ECONOMICS AND FINANCE
ECONOMICS

2584	3204-04	PRIN OF ECONOMICS	TT	1230-1400	<u>BRAND</u>	LA319	CHANGE
2586	3204-90	PRIN OF ECONOMICS	TT	1730-1900	<u>STAFF</u>	LA108	CHANGE
2636	3512-90	ECONOMIC ENVIRONMENT	MON	1730-2030	<u>LEE</u>	LA307	NEW
FINANCE							
3548	3310-01	BUSINESS FINANCE	TT	0800-0930	<u>STAFF</u>	CRB304	CHANGE
3550	3310-02	BUSINESS FINANCE	MWF	1000-1100	<u>STAFF</u>	LA108	CHANGE
3552	3310-03	BUSINESS FINANCE	MWF	0900-1000	<u>STAFF</u>	LA108	CHANGE
3554	3310-04	BUSINESS FINANCE	TT	1230-1400	<u>TOLLEN</u>	LA108	CHANGE
3556	3310-90	BUSINESS FINANCE	TT	1900-2030	<u>LEE</u>	LA307	CHANGE
3558	3315-01	INVESTMENTS	TT	0930-1100	<u>TOLLEN</u>	LA122	CHANGE
3568	3320-03	MONEY & BANKING	MWF	1200-1300	<u>SCHAUER</u>	LA319	CHANGE
		(Meets with Econ 3220-03)					
3580	3511-90	FINANCIAL MANAGEMENT	WED	1730-2030	LEE	<u>LA318</u>	CHANGE

DEPARTMENT OF BUSINESS

BUSINESS LAW

1712	3301-90	BUSINESS LAW I	TT	2030-2200	ZAVALETA	LA319	CHANGE
1716	3304-01	BUSINESS LAW II	TT	0930-1100	<u>BRENNAND</u>	CRB203	CHANGE
1718	3304-90	BUSINESS LAW II	MW	1730-1900	<u>BRENNAND</u>	LA304	CHANGE
1726	3400-01	LEGAL ASPECTS OF MANAGEMENT	TUE	1300-1600	<u>GERBER</u>	CRB205	CHANGE
1730	3401-90	CPA LAW REVIEW	TUE	<u>1730-2030</u>	<u>FRUTHANDLER</u>	CRB202	CHANGE

GENERAL BUSINESS

3636	3203-01	INTRO TO COMPUTERS	MWF	1200-1300	STAFF	LA318	CHANGE
3646	3203-90	INTRO TO COMPUTERS	TT	1730-1900	<u>HAWLEY</u>	LA319	CHANGE
3654	3304-01	INSURANCE PLANNING	MWF	0800-0900	<u>TAPPAN</u>	LA305	CHANGE
3670	3401-01	COMPARATIVE READINGS	TBA		<u>STAFF</u>		NEW
3682	3550-80	PROBLEMS IN BUSINESS EDUC (TAUGHT AT FORT BLISS)	THU	1715-2015	DAWKINS	2C128	NEW

MANAGEMENT

5214	3300-80	INTRO TO MANAGEMENT (TAUGHT AT FORT BLISS)	MW	1900-2030	<u>GRAVES</u>	2C222	CHANGE
------	---------	---	----	-----------	---------------	-------	--------

MARKETING

5374	3401-01	MKT RESEARCH AND ANALYSIS STATISTICS	TT	<u>1100-1230</u>	PALMORE	<u>ED316</u>	CHANGE
7272	3201-02	FUND OF STATISTICS	MWF	<u>1300-1400</u>	MARTIN	CRB001	CHANGE
7278	3201-80	FUND OF STATISTICS (TAUGHT AT FORT BLISS)	MW	1715-1845	<u>GRAVES</u>	2C226	CHANGE
7280	3201-90	FUND OF STATISTICS	MW	1900-2030	<u>GEORGE</u>	CRB001	CHANGE
7284	3301-01	INTERMEDIATE STATISTICS	TT	0800-0930	<u>GEORGE</u>	CRB301	DELETE

COLLEGE OF EDUCATION

DEPARTMENT OF CURRICULUM AND INSTRUCTION

2300	3311-02	INTRO SEC CURRICULUM	TT	1300-1430	BURNS	<u>ED305</u>	CHANGE
2312	3333-01	EDUCATION & MEX-AMERICAN	TT	0800-0930	STAFF	<u>GH301</u>	DELETE
2318	1450-02	EDUCATIONAL WORKSHOP (BIL/BIC ED)	TBA				
2320	1450-03	EDUCATIONAL WORKSHOP (BIL/BIC ED)	TBA				DELETE
2358	3425-02	READ LAB EXP SEC	TBA		SOLIS		NEW
2380	3450-03	EDUCATIONAL WORKSHOP (BIL/BIC ED) (BETO)	TUE	1630-1930	<u>HERNANDEZ</u>	ED301	CHANGE
2388	3455-01	WRKSP-TEACHING ENGLISH COMP (Meets with ENGL 3455-01)	MW	1630-1800	BOLEY	<u>HUD313</u>	CHANGE
2456	3546-01	TEACHING READING-SPAN	WED	1630-1930	STAFF	ED308	DELETE
2452	3540-80	PHILOSOPHY OF EDUCATION (TAUGHT AT FORT BLISS)	THU	1730-2000	STAFF	2D172	CHANGE
2462	3550-02	WORKSHOP IN EDUCATION (BIL/BIC ED) (BETO) (FELLOWSHIP PRACTICUM)	THU	1630-1930	<u>CASTILLO</u>	ED308	CHANGE
2470	3551-02	SEMINAR IN READING	WED	1630-1930	STAFF	ED308	NEW
2472	3552-01	ORAL LANG ASSESSMENT	TBA				DELETE

DEPARTMENT OF GEOLOGICAL SCIENCES

3806	3222-01	SURVEY OF GEOPHYSICS	TT	0930-1100	KELLER	G216	DELETE
3850	3333-01	ENGR & ENVIRON GEOPHY	MWF	0800-0900	WHITE	G216	DELETE
3852	3334-01	GRAV & MAG PROSPECT	TT	0930-1100	KELLER	G216	NEW
3854	3333	LAB A	TUE	1400-1700	WHITE	G109	DELETE
3856	3334	LAB A	TUE	1400-1700	KELLER	G109	NEW
3880	1456-90	VERT PALEONT LAB (MEETS WITH BIOL 1456-90)	THU	1800-2100	HARRIS	BI206	NEW
3898	3455-90	VERT PALEONTOLOGY (MEETS WITH BIOL 3455-90)	TUE	1800-2100	LEMONE	BI206	NEW
3928	3535-01	ADV MICROPALAEONTOLOGY	TT	1230-1400	CORNELL	G111	DELETE
3932	3535	LAB A	FRI	1200-1500	CORNELL	C111	DELETE
3944	3556-01	PHYSICAL WELL LOGGING	TT	1100-1230	WHITE	G216	DELETE
3958	3590-01	SEMINAR	TT	1100-1230	KELLER	G216	NEW

DEPARTMENT OF MATHEMATICS

STUDY SKILLS

4668	3121-02	QUANTITATIVE STUDY	MWF	0900-1000	STAFF	CRB203	DELETE
------	---------	--------------------	-----	-----------	-------	--------	--------

MATHEMATICS

4644	3120-03	INTRO MATH FOR BUSINESS	MWF	0900-1000	HANSEN	PS128	CHANGE
4646	3120-04	INTRO MATH FOR BUSINESS	MWF	1000-1100	<u>STAFF</u>	CRB104	CHANGE
4648	3120-05	INTRO MATH FOR BUSINESS	MWF	1100-1200	<u>STAFF</u>	PS129	CHANGE

DEPARTMENT OF EDUCATIONAL PSYCHOLOGY AND GUIDANCE							
4062	3402-01	ED PSYC BILI CHILD	MWF	1000-1100	CASTILLO	ED315	CHANGE
4066	3409-01	EDUCATION OF EXCEPTIONAL	MW	1630-1800	STAFF	ED315	CHANGE
4082	3421-01	PSYCH MENTAL RETARDED	TT	1630-1800	STAFF	ED309	CHANGE
4086	3422-90	CUR MAT METH TCH MENTAL	WED	1800-2100	STAFF	ED315	CHANGE
4090	3429-90	MENTALLY RETARD-SEM	TUE	1800-2100	STAFF	ED315	CHANGE
4127	3521-02	IND STUDY IN SPECIAL ED (CHARACTER OF EMOT DISTUR)	TT	1630-1800	PLATA	ED315	NEW
4128	3521-90	IND STUDY IN SPECIAL ED (METH MAT IN EDUC LANG/LRNG DIS)	MW	1900-2030	BAUM	ED311	NEW
4162	3540-01	EDUC PSYCHOLOGY SEM	TBA		DAVIS		NEW
4163	3545-01	CHAR OF LANG/LRNG DIS CHILD	TT	1630-1800	BAUM	ED311	NEW

DEPARTMENT OF HEALTH AND PHYSICAL EDUCATION

HEALTH EDUCATION							
4208	3303-01	PROBS IN HEALTH EDUCATION	TT	0930-1100	STAFF	ED309	DELETE
4220	3404-90	PUBLIC HEALTH ADM I	THU	1900-2200	HUTCHINSON	ED317	CHANGE
4222	3405-01	PUBLIC HEALTH ADM II	THU	1900-2200	HUTCHINSON	ED317	NEW
PHYSICAL EDUCATION							
ACTIVITY COURSES							
5894	1101-51	JUDO (INT)	TT	1100-1230	STAFF	MG98	CHANGE

COLLEGE OF ENGINEERING

DEPARTMENT OF CIVIL ENGINEERING

1980	4507-90	PHOTO INTERPRETATION	TT	1730-1900	COLTHARP	CRB201	DELETE
1984	4507	LAB A	TBA		COLTHARP	E224	DELETE

DEPARTMENT OF ELECTRICAL ENGINEERING

2744	2311-02	ELEC ENGR LAB II	MON	1300-1400	STAFF	CRB102	NEW
2854	3507-01	MOD CONTROL THEORY I	TBA		STAFF		NEW
2866	3569-01	MOD MEAS TECH	TBA		STAFF		NEW

DEPARTMENT OF MECHANICAL AND INDUSTRIAL ENGINEERING

INDUSTRIAL ENGINEERING							
4423	3551-01	QUANTITATIVE METHODS	TBA		STAFF		NEW
4424	3554-01	ADV ENGR ECONOMY	TBA		STAFF		NEW

COLLEGE OF LIBERAL ARTS

DEPARTMENT OF CRIMINAL JUSTICE

2188	3101-02	INTRO TO CRIM JUSTICE	MWF	0900-1000	GUINN	LA116	CHANGE
2190	3101-90	INTRO TO CRIM JUSTICE	MON	1900-2200	GUINN	LA220	CHANGE
2198	3201-01	CRIMINAL INVESTIGATION	MWF	1100-1200	STAFF	LA220	CHANGE
2200	3201-90	CRIMINAL INVESTIGATION	TUE	1900-2200	STAFF	LA220	CHANGE
2224	3307-01	CRIMINALISTICS	TT	0930-1100	DISSLY	CRB304	CHANGE

DEPARTMENT OF DRAMA AND SPEECH

SPEECH							
7154	3101-01	PUBLIC SPEAKING	MWF	0800-0900	STAFF	FAD071	DELETE
7158	3101-03	PUBLIC SPEAKING	MWF	1000-1100	STAFF	FAD075	DELETE
7160	3101-04	PUBLIC SPEAKING	MWF	1000-1100	STAFF	FAD071	DELETE
7168	3101-08	PUBLIC SPEAKING	TT	0800-0930	STAFF	FAD075	DELETE
7170	3101-09	PUBLIC SPEAKING	TT	0930-1100	STAFF	FAD071	DELETE
7172	3101-10	PUBLIC SPEAKING	TT	0930-1100	STAFF	FAD071	CHANGE
7174	3101-11	PUBLIC SPEAKING	TT	1100-1230	STAFF	FAD071	CHANGE
7180	3101-90	PUBLIC SPEAKING	MW	1900-2030	STAFF	LA103	DELETE
7186	3102-02	BUSN & PROF COMMUN	MWF	0800-0900	STAFF	LA103	DELETE
7188	3102-03	BUSN & PROF COMMUN	MWF	0900-1000	STAFF	FAD075	DELETE
7194	3102-06	BUSN & PROF COMMUN	MWF	1400-1500	MICULKA	LA103	DELETE
7198	3102-08	BUSN & PROF COMMUN	TT	0800-0930	STAFF	LA101	DELETE
7200	3102-09	BUSN & PROF COMMUN	TT	0930-1100	TUCKER	LA102	CHANGE
7206	3102-12	BUSN & PROF COMMUN	TT	1230-1400	TUCKER	LA107	DELETE
7207	3102-13	BUSN & PROF COMMUN	MWF	1000-1100	TUCKER	FAD075	NEW
7210	3102-91	BUSN & PROF COMMUN	MW	1900-2030	STAFF	LA101	DELETE

SPEECH PATHOLOGY

5772	3416-01	DACTYLOLOGY	TBA		DE SALLE	SHC	NEW
5773	3465-01	ADVANCED AUDIOMETRICS	WED	1630-1930	WILLIAMS	SHC	NEW
5774	3562-01	DISORD OF LANGUAGE	THU	1630-1930	PEROZZI	SHC	CHANGE
5775	3496-01	PROF LAB EXP ELEM	TBA		MIDDLETON	SHC	NEW
5776	3498-01	PROF LAB EXP SEC	TBA		MIDDLETON	SHC	NEW
5778	3563-01	ORGANIC SPCH DISORDER	TUE	1630-1930	BRAND	SHC	CHANGE
5783	3565-01	ADVANCED AUDIOLOGY	WED	1630-1930	WILLIAMS	SHC	CHANGE

DEPARTMENT OF ENGLISH
STUDY SKILLS

3229	3121-15	INTRO COLLEGE STUDY ENGLISH	MWF	0900-1000	WOOD	U213W	NEW
2886	3110-04	BASIC ENGLISH COMP	MWF	0800-0900	STAFF	LA304	CHANGE
2888	3110-05	BASIC ENGLISH COMP	MWF	0800-0900	STAFF	LA102	CHANGE
2890	3110-06	BASIC ENGLISH COMP	MWF	0800-0900	STAFF	LA107	CHANGE
2900	3110-11	BASIC ENGLISH COMP	TT	0800-0930	STAFF	LA204	CHANGE
2902	3110-12	BASIC ENGLISH COMP	TT	0800-0930	STAFF	LA205	CHANGE
2908	3110-15	BASIC ENGLISH COMP	MWF	0900-1000	STAFF	LA107	CHANGE
2910	3110-16	BASIC ENGLISH COMP	MWF	0900-1000	STAFF	LA122	CHANGE
2912	3110-17	BASIC ENGLISH COMP	MWF	0900-1000	STAFF	ED301	CHANGE
2920	3110-21	BASIC ENGLISH COMP	TT	0930-1100	STAFF	LA206	CHANGE
2922	3110-22	BASIC ENGLISH COMP	TT	0930-1100	STAFF	CRB102	CHANGE
2928	3110-25	BASIC ENGLISH COMP	MWF	1000-1100	STAFF	ED305	CHANGE
2930	3110-26	BASIC ENGLISH COMP	MWF	1000-1100	STAFF	CRB102	CHANGE
2932	3110-27	BASIC ENGLISH COMP	MWF	1000-1100	STAFF	CRB003	CHANGE
2938	3110-30	BASIC ENGLISH COMP	MWF	1100-1200	STAFF	LA106	CHANGE
2940	3110-31	BASIC ENGLISH COMP	MWF	1100-1200	STAFF	LA410	CHANGE
2942	3110-32	BASIC ENGLISH COMP	MWF	1100-1200	STAFF	LA222	CHANGE
2950	3110-36	BASIC ENGLISH COMP	TT	1100-1230	STAFF	LA101	CHANGE
2960	3110-41	BASIC ENGLISH COMP	MWF	1200-1300	STAFF	LA107	CHANGE
2962	3110-42	BASIC ENGLISH COMP	MWF	1200-1300	STAFF	LA122	CHANGE
2964	3110-43	BASIC ENGLISH COMP	TT	1230-1400	STAFF	LA107	CHANGE
2966	3110-44	BASIC ENGLISH COMP	TT	1230-1400	STAFF	LA203	CHANGE
2980	3110-51	BASIC ENGLISH COMP	MWF	1300-1400	STAFF	LA301	CHANGE
2982	3110-52	BASIC ENGLISH COMP	MWF	1300-1400	STAFF	LA306	CHANGE
3048	3111-08	INTERMEDIATE ENGL COMP	MWF	0900-1000	STAFF	CRB102	CHANGE
3050	3111-09	INTERMEDIATE ENGL COMP	MWF	0900-1000	STAFF	CRB004	CHANGE
3056	3111-12	INTERMEDIATE ENGL COMP	TT	0930-1100	STAFF	ED309	CHANGE
3066	3111-17	INTERMEDIATE ENGL COMP	MWF	1000-1100	STAFF	HUD100	CHANGE
3074	3111-21	INTERMEDIATE ENGL COMP	MWF	1100-1200	STAFF	HUD100	CHANGE
3084	3111-26	INTERMEDIATE ENGL COMP	TT	1100-1230	STAFF	ED317	CHANGE
3136	3112-04	RESEARCH & WRITING (THE RIO GRANDE VALLEY)	TT	0800-0930	DAY	LA404	CHANGE
3146	3112-09	RESEARCH & WRITING (MYTH)	MWF	0900-1000	GALLAGHER	PSY307	CHANGE
3150	3112-11	RESEARCH & WRITING (THE RIO GRANDE VALLEY)	TT	0930-1100	DAY	LA106	CHANGE
3152	3112-12	RESEARCH & WRITING	TT	0930-1100	STAFF	ED313	CHANGE
3156	3112-14	RESEARCH & WRITING (MYTH)	MWF	1000-1100	GALLAGHER	LA408	CHANGE
3160	3112-16	RESEARCH & WRITING (MASS MEDIA)	MWF	1100-1200	EHMANN	LA407	CHANGE
3162	3112-17	RESEARCH & WRITING	MWF	1100-1200	WEST	LA309	CHANGE
3166	3112-19	RESEARCH & WRITING (LIFE AND TIMES OF PANCHO VILLA)	TT	1100-1230	BRADY	HUD200	CHANGE
3168	3112-20	RESEARCH & WRITING (COMEDY)	TT	1100-1230	STAFFORD	LA408	CHANGE
3172	3112-22	RESEARCH & WRITING (COMEDY)	MWF	1200-1300	STAFFORD	LA406	CHANGE
3180	3112-26	RESEARCH & WRITING (BORDER STUDIES)	TT	1230-1400	SERRANO	LA408	CHANGE
3184	3112-28	RESEARCH & WRITING (WOMEN IN AMERICA)	MWF	1300-1400	MARCHINO	LA404	CHANGE
3234	6111-01	COMMUNICATION	MWF	0900-1100	WALKER, R	CRB101	CHANGE
3236	6111-02	COMMUNICATION	MWF	1000-1200	WALKER, C	CRB004	CHANGE
3238	6111-03	COMMUNICATION	MWF	1100-1300	CORN	CRB003	CHANGE
3290	3213-08	APP ANAL NOVEL SH STR	MWF	1000-1100	CARR	LA402	CHANGE
3300	3213-13	APP ANAL NOVEL SH STR (FOR FOREIGN STUDENTS ONLY)	TT	1230-1400	COLTHARP	LA404	CHANGE
3304	3213-90	APP ANAL NOVEL SH STR	MW	1900-2030	MORTIMER	HUD200	CHANGE
3314	3214-04	APP ANAL DRAMA	TT	0930-1100	ETHERIDGE	HUD100	CHANGE
3320	3214-07	APP ANAL DRAMA	TT	1100-1230	STANDFORD	HUD100	CHANGE
3324	3214-09	APP ANAL DRAMA (FOR FOREIGN STUDENTS ONLY)	MWF	1300-1400	COLTHARP	LA403	CHANGE
3380	3311-02	AMER LIT TO 1860	TT	0930-1100	ANTONE	LA404	CHANGE
3398	3333-01	ROMANTIC LITERATURE	MWF	1000-1100	QUARM	HUD200	CHANGE
3430	3372-01	FOLKLORE	MWF	1000-1100	WEST	LA122	CHANGE
3476	3455-01	WKSP TEACH ENGL COMP (MEETS WITH CURR 3455-01)	MW	1630-1800	BOLEY	HUD313	CHANGE
3500	3510-01	RHET COMP - COLLEGE	TT	1700-1830	BOLEY	HUD114	CHANGE
3524	3570-01	STUDIES IN LANGUAGES (AMERICAN DIALECTS)	TT	1630-1800	COLTHARP	LA203	DELETE
3528	3570-90	STUDIES IN LANGUAGES (AMERICAN LANGUAGE)	MW	1900-2030	ELERICK	LA203	DELETE
3529	3572-90	TRANS-GENER GRAMMER	MW	1900-2030	ELERICK	LA203	NEW

3530	3573-01	DIALECTOLOGY	TT	1630-1800	COLTHARP	LA203	NEW
DEPARTMENT OF HISTORY							
4296	3202-01	WEST CIV SINCE 1648	TT	0930-1100	HACKETT	LA303	CHANGE
DEPARTMENT OF LINGUISTICS							
4514	4103-02	NON INDO EURO LANGUAGE (JAPANESE)	MWF TUE	1000-1100 0930-1100	SHARP	WH304	NEW
DEPARTMENT OF MODERN LANGUAGES							
FRENCH							
3628	3431-01	16th CENTURY LIT	TUE	1630-1930	BORNSCHEUER	LA210	CHANGE
3632	3551-01	LIT MIDDLE AGES	TUE	1630-1930	BORNSCHEUER	LA210	CHANGE
PORTUGUESE							
6346	3490-01	SENIOR SEMINAR	TBA		BAGBY		NEW
SPANISH							
6938	4101-01	BEGINNING SPANISH	MWF TUE	0800-0900 0800-0930	STAFF	LA206	CHANGE
						(Delete Tue Class Hours)	
6942	4101-03	BEGINNING SPANISH	MWF	0800-0900	BREWER	LA301	CHANGE
6944	4101-04	BEGINNING SPANISH	MWF	0900-1000	BREWER	LA308	CHANGE
6962	4101-14	BEGINNING SPANISH	MWF	1200-1300	STAFF	LA204	CHANGE
6976	4102-02	BEGINNING SPANISH	MWF THU	0900-1000 0800-0930	STAFF	LA206	CHANGE
						(Delete Thur Class Hours)	
6998	4103-03	BASIC SPAN-NATIVE SPEAKER	MWF	1000-1100	TESCHNER	LA206	CHANGE
7004	4103-06	BASIC SPAN-NATIVE SPEAKER	MWF	1300-1400	AYER	LA204	CHANGE
7014	4104-03	BASIC SPAN-NATIVE SPEAKER	MWF	1100-1200	AYER	OM210	CHANGE
7048	3203-02	INT SPAN NATIVE SPEAKER	MWF	1100-1200	BREWER	LA209	CHANGE
7062-	3204-03	INT SPAN NATIVE SPEAKER	TT	1100-1230	TESCHNER	LA207	CHANGE
7066	3301-90	SPAN LIT BEFORE 1700	MW	1900-2030	RODRIGUEZ	LA209	CHANGE
7078	3320-01	HISPANIC CULTURE	TT	1100-1230	BAGBY	LA209	CHANGE
7098	3460-01	SPAN-AMERICAN NOVEL	MWF	1400-1500	FORD	LA206	CHANGE
7106	3501-01	RESEARCH & BIBLIO	WED	1630-1930	PEREZ	LA208	CHANGE
7110	3515-01	PREMODERNISM-MOD	mon	1630-1930	GARCIA	LA208	CHANGE
7114	3525-01	LATIN AMERICAN THEATER	TUE	1630-1930	SHARP	LA208	CHANGE
7126	3589-01	PROB LANG INSTRUCT	THU	1600-1900	AYER	LA208	DELETE
DEPARTMENT OF PHILOSOPHY							
6142	3451-01	WORLD HISTORICAL PHILOSOPHER (HUSSERL, HEIDDIGGER, MERLEAU-PONTY)	TT	0800-0930	SPRINGER	WH205	CHANGE
6148	3452-02	PROB IN PHILOSOPHY-SEM	TT	1100-1230	BRIONES	WH205	NEW
6150	3551-01	WORLD HISTORICAL PHILOSOPHER (HUSSERL, HEIDDIGGER, MERLEAU-PONTY)	TT	0800-0930	SPRINGER	WH205	CHANGE
DEPARTMENT OF POLITICAL SCIENCE							
6352	3110-03	AMERICAN GOVERNMENT (THIS CLASS IS OPEN TO ALL STUDENTS)	MWF	1000-1100	CARTER	PSY306	CHANGE
6360	3110-07	AMERICAN GOVERNMENT	TT	0800-0930	VILLARREAL	ED108	CHANGE
6362	3110-08	AMERICAN GOVERNMENT (ESPECIALLY FOR STUDENTS INTERESTED IN POLITICAL SCIENCE)	TT	0930-1100	PRICE	PSY306	CHANGE
6369	3110-12	AMERICAN GOVERNMENT	MW	1700-1830	CARTER	LA308	NEW
6416	3324-01	SOV AND EASTERN EUR POL	TT	0930-1100	KRUSZEWSKI	LA304	CHANGE
6432	3334-01	WEST POL HERITAGE I	TT	1100-1230	CARTER	LA303	CHANGE
6436	3336-01	AMER POLITICAL THOUGHT	TT	1700-1830	CARTER	LA304	CHANGE
6472	3501-90	SEM ADVANCED RESEARCH METHOD	THU	1900-2200	LEONARD	PSY307	CHANGE
6484	3537-01	SEMINAR OF CLASSICS	MON	1700-2000	STAFF	BH204	DELETE
6488	3540-90	FOREIGN POLICY DECISION MAKIN	TUE	1900-2200	PRICE	BH204	CHANGE
DEPARTMENT OF RELIGION							
6716	3203-01	INTRO PSYC RELIGION	TT	0930-1100	MAXWELL	ED304	DELETE
SOCIAL WORK SEQUENCE							
6917	3101-01	SOC POL & SERV I	MWF	1200-1300	STAFF	GH303	CHANGE
6918	4101-01	INTRO TO SOCIAL WELFARE	MWF	1100-1200	PERALTA	GH303	CHANGE
COLLEGE OF SCIENCE							
DEPARTMENT OF CHEMISTRY							
2020	3105-02	GENERAL CHEMISTRY	MWF	0900-1000	WHALEN	PS208	CHANGE
2026	3105-05	GENERAL CHEMISTRY (TAUGHT IN SPANISH)	TT	1530-1700	LEVITT	PS310	CHANGE
2052	1324-01	LAB FOR CHEM 3324	MON	1200-1500	CABANESS	PS404	CHANGE
2054	1324-02	LAB FOR CHEM 3324	TUE	1300-1600	CABANESS	PS404	CHANGE
2056	1324-03	LAB FOR CHEM 3324	WED	1500-1800	LEVITT	PS404	CHANGE
2058	1324-04	LAB FOR CHEM 3324	FRI	1200-1500	LEVITT	PS404	CHANGE
2062	1325-01	LAB FOR CHEM 3325	MON	1500-1800	ALEXANDER	PS404	CHANGE
2076	3321-01	ORGANIC CHEMISTRY	MWF	0900-1000	LLOYD	PS310	CHANGE
2146	3521-01	ADV ORGANIC CHEM I	MWF	1000-1100	HERNDON	PS405	CHANGE

to or loss of any other College property. If the charges incurred in any term or semester exceed fifty per cent of the deposit, the student, upon notice from the Business Manager, will be required to restore the deposit to the original amount by paying such charges immediately. Students having charges in excess of the deposit must pay the excess immediately; pending payment, no credit will be allowed on the work of that semester or term, and the student will be ineligible to re-enter the College. Loss and damage items charged against general property deposits shall be credited to the department or other unit in which the loss or damage occurred.

Deposits will be refunded in cash in the Business Manager's Office for two weeks after the close of the session. Checks will be made for those which have not been called for within that time and will be mailed to the home address which the student gave at the time of his registration.

Non-Credit Students.—A student not registered for credit in a course or courses is required to pay the same fees and deposits as a regular student.

Exemption of Ex-Service Men.—Men and women enlisted in the service during the World War, who are citizens of Texas, are exempted from fees, but not from deposits. To secure this exemption, the service record or discharge must be presented to the Business Manager each time the student registers.

Students' Association Fee.—The students' association fee is \$10. Payment of this fee at the beginning of each session is necessary in order that students may receive valuable training in extra-curricular subjects. In addition to the usual athletic and social activities, important training is given with respect to literary activities, publications, dramatics, current events, advanced and special application in science and engineering, etc. At least 50 per cent of the subscription price of the "Prospector," College newspaper, shall be taken from the regular student association fee.

HOUSING REGULATIONS FOR STUDENTS

The College of Mines considers it a distinct advantage for all boarding students to live in the dormitories on the college campus. Every attention will be given for the improvement of the social and educational life of those who live on the campus.

The Texas College of Mines and Metallurgy has two very modern and conveniently located residence halls, one for men and one for women. Each of these halls is fireproof in construction, and modernly furnished, and adequate equipment is provided for supplying meals. Facilities also include recreation rooms which provide for a pleasant social life for all resident students.

A room deposit of \$5 is paid in advance in order to make proper room reservation. This deposit is refunded at the close of the semester, provided the student does not withdraw from the dormitory before that period, and provided there is no deduction for breakage. The fee will be returned to those students who can not be accommodated in the college dormitories and to those applicants who cancel their reservations before September 10.

In event any student desires to change his place of residence at the end of the semester, it is required that a notice of ten days be given in order that the room in occupancy may be rented.

Room will be furnished in each of the dormitories at a rate of \$45 per semester. Board is provided at the rate of \$112.50 per semester. Room and board may be paid in monthly installments at the rate of \$35 per month in advance on the 5th, 6th, or 7th of each month. Unless arrangement is made prior to payment date with the Business Director, delinquency in payment will incur a fine of 25c for the first day and 10c for each school day thereafter.

In event students are ill and live in a local hospital for more than three days, all charges for board are remitted. Only room rent is charged.

The management furnishes each student with sheets and pillowcases. The student is requested to furnish blankets, bedspreads, towels, and such other personal linens as may be desired. Since the climate is delightfully mild during the winter months, students will not need more than two or three blankets.

OPPORTUNITIES FOR SELF HELP

To a student who is working his way, a city of the size of El Paso offers a large field of opportunity. A students' labor bureau is maintained by the College, and every effort will be made to assist the student, but the College assumes no responsibility except to the extent of trying to help. No student should enter the College for the first time without funds sufficient for at least the first semester.

LOAN FUNDS

The amount of an individual loan which will be granted from Loan Funds administered by the College is limited to the sum of fees and deposits, and repayment is required within the semester or term for which the loan is granted.

Academic Loan Fund—This fund is maintained for academic students who have been in attendance for at least one semester and who have achieved an average grade of 'B' in at least twelve semester hours of work. The fund is administered by a Faculty Committee.

Engineers' Loan Fund—This loan fund is maintained by the Engineering Department for the benefit of engineering students who have been in attendance at least one year and who meet other special requirements. The fund is administered by the Dean of Engineering.

Ex-Students' Memorial Loan Fund—Under the will of the late William Clifford Hogg, \$25,000 was granted to the Ex-Students' Association and the College for the establishment of this loan fund. Only the income from the fund may be loaned. It is administered by a board of Directors consisting of the administrative officers of the College and the Ex-Students' Association.

Robert E. Lee Loan Fund.—The Robert E. Lee Chapter, No. 1060, United Daughters of the Confederacy, offers an annual loan of \$150. Applicants must be mining engineering students, must have completed one full year of attendance at the College of Mines and Metallurgy, and must be direct descendants of Confederate soldiers or sailors.

The loan is paid the student as follows: \$50 at the time of the Fall registration and \$12 each month during the school year. The loan is repayable without interest to the Chapter one year after graduation. After the first year following graduation, the loan or the unpaid portion of it will draw three per cent interest.

Spanish-American Loan Fund.—Establishment of and additions to this loan fund are made by residents of the region who are of Spanish descent. Loans are made to students of Spanish descent who are needy and of high scholastic standing. The fund is administered by a Faculty Committee.

Women's Auxiliary Emergency Loan Fund.—This loan fund was established by the Women's Auxiliary for The College of Mines of El Paso. Loans are made to needy students of high scholastic standing. The fund is administered by a Faculty Committee.

SCHOLARSHIPS

High School.—The College offers on the following terms and conditions one scholarship annually to the valedictorian, boy or girl, graduating from an accredited secondary school, the honor graduate being certified through the State Department of Education: 1. The school must be located in Texas and must hold at least fifteen units accredited by the State Department of Education. 2. The successful applicant must make the highest record among all the students graduating that calendar year, including winter, spring and summer graduating classes, and must make an average of at least 90 per cent in the senior year. If no member of the class makes an average of 90 in the senior year, no award will be made. 3. Under no circumstances are these scholarships transferable. 4. The financial benefit is exemption from the registration fee of \$50 in the College. 5. The scholarship is valid during the first Long Session after the holder's graduation from high school, and no other, and in no Summer Session. 6. The scholarship must be presented before or at the time the holder registers in the College. Holders failing to do this will pay the registration fee and will not be reimbursed therefor. 7. The conduct of scholarship holders must be satisfactory to the Faculty.

REGULATIONS AFFECTING STUDENT LIFE

STUDENT GUIDANCE

Special attention is given to students entering college for the first time. A member of the Faculty is assigned to each student as an adviser, so that the student will have a mature friend to whom he may submit his troubles and problems. The adviser earnestly endeavors to know his advisee and to effect an expeditious adjustment of the student to his new environment. In many ways he acts as a representative of the advisee's parents. His aim is to put the student in the way of developing all phases of his personality. The advisory work of members of the Faculty is considered one of their most important functions.

PHYSICAL WELFARE

B. F. JENNESS, M. D.	Health Officer
MACK SAXON	Associate Professor
JULIA I. KANE	Instructor
H. B. PHILLIPS	Instructor

Throughout their residence at the College all students are encouraged to develop physically to their best advantage. They are stimulated to participate in systematic exercises and sports.

Under the direction of Dr. B. F. Jenness, Health Officer, an effort is made to guide the physical development and health of all students by examinations, compilation of records, advice, health bulletins, and lectures. The Health Officer also acts as adviser on campus sanitation, and minor medical and surgical treatment of an emergency nature is given in the health office. The Health Officer may examine students in verification of suitable vaccination prior to their admission and require acceptable certificates.

Special attention is given to all freshmen, who are subject to physical examination.

PHYSICAL TRAINING

Physical training is required of each student with rank below that of Sophomore in the College of Mines and Metallurgy, unless the student has credit for at least one year of physical training. At the discretion of the student's Dean, the physical training requirement may be waived in the case of students over 23 years of age. The exercises prescribed in physical training may be correctional, developmental, or recreational, and, dependent on individual conditions, may vary from absolute rest to strenuous exercise and sports. A student failing to pass the work in any semester will be required to repeat that semester's work. Attendance at lectures in hygiene is required. A fee of \$2.00 per semester is required for every student registering for physical training. The course numbers for women are Physical Training 02 and 012; for men, Physical Training 01. Attendance in physical training exercises is subject to the provisions

under heading **Class Attendance and Absences**, page 36, with the exception that a student who must be absent from an exercise or exercises due to illness is required to report said case of illness to the Health Officer of the College immediately. Work missed due to illness may be made up, make-up cards to be secured from the instructor. Such absences must be made up within two weeks of return to class by attending one additional class in Physical Training for each absence.

OFFICIAL NON-ATHLETIC EXTRA-CURRICULAR STUDENT ACTIVITIES

List of Organizations.—Believing that students are greatly benefited by participation in extra-curricular activities, the College sponsors clubs and organizations of various types. Among those now active and officially recognized are the following:

General Organizations

Academic Association
 Association for Childhood Education (Student branch)
 Co-Ed Association
 College Band
 College Players, (Dramatics)
 Forensic Society, (Debating)
 Glee Club
 Gold Diggers (Women's Pep Squad)
 Independent Women Association
 International Relations Club
 Latin-American Club
 M Association (athletics)
 Pre-Law Club
 Pre-Medic Club
 Press Club
 Quill Club
 Rifle Club
 Scientific Club
 Students' Association (the organization of Student Government)
 Women's Athletic Association

Publications

El Burro (literary)
 The Prospector, (Weekly)
 The Flowsheet (Annual)

Social Organizations

Alpha Chi (Honorary Society)
 Alpha Phi Omega Fraternity
 Alpha Psi Omega (Dramatics)
 Chi Omega Sorority

Delta Delta Delta Sorority
 Kappa Sigma Kappa Fraternity
 Newman Club (Religious-Social)
 Phi Beta Mex Fraternity
 Phi Sigma Psi Fraternity
 Rho Sigma Phi Fraternity
 Sigma Delta Pi Sorority
 Zeta Tau Alpha Sorority

General Regulations.—These extra-curricular activities of the non-athletic type are considered of such great importance that they are placed under the supervision of Faculty committees and Faculty sponsors and function under certain regulations for operation and the eligibility of participants. These special regulations are printed annually and are so easily available to all students that each student is charged with notice and knowledge thereof.

In addition to the foregoing, the officers of each organization are charged with the responsibility of acquainting all of their pledges and members with the rules of procedure for organizations and for social affairs as set up by the Faculty Committee on Student Activities and its sub-committees. These rules may be obtained from the chairman of the committee.

Rules for Participation.—1. The following are the activities to which the rules of participation are to be applied: (a) serving as editor, assistant editor, managing editor, business manager, or assistant manager on any official student publication; (b) membership in any listed organization for which funds are appropriated from Student Association fees, or participation in any local or out of town performance given by, or in the name of these organizations; (c) becoming a candidate for, or serving as president, vice-president, secretary, treasurer or manager in any listed organization for which funds are appropriated from Student Association fees; (d) serving as a member of student committees or councils; (e) being a member or serving in an official capacity in any listed organization which obtains no funds from Student Association fees. (Eligibility requirement e of paragraph 2 not applied in this classification.)

2. The consensus of the Faculty Committee on Student Activities is that participation by students in the various extra-curricular activities is a privilege that is to be earned by maintaining the standards of scholarship and conduct of the College.

On the basis of the foregoing paragraph the following students are eligible for such participation.

- a. Those who are not subject to any phase of disciplinary action.
- b. Those who are taking twelve or more credit hours of regular college work.
- c. Those who, during their last semester in attendance, passed a minimum of nine credit hours. Two consecutive terms of summer school may be counted as one semester.
- d. Those who are not on Final Trial.
- e. Those who have paid Student Association fees.

3. Eligibility requirements for holding office.

Only those who maintain a "C" average in any twelve credit hours may hold office in any extra-curricular activity. (See Rules for Participation, Sections a and c, for the definition of "office.")

Eligibility at the beginning of a semester holds good throughout the semester unless the student has become ineligible under the above provisions. A student ineligible at the beginning of a semester by reason of the foregoing regulations becomes eligible when the scholastic or disciplinary disability has been removed. First year students are eligible immediately upon entering, provided they are carrying the twelve semester hours of credit work.

ATHLETICS

Rules and regulations governing intercollegiate athletics at the College of Mines and Metallurgy are those effective in the Border Intercollegiate Athletic Conference. These rules and additional rules governing freshman participation in athletics are published in a booklet issued by the Border Intercollegiate Athletic Conference.

CONDUCT

It is assumed that students come to the College for a serious purpose, and that they will cheerfully conform to such regulations as may be, from time to time, made by the Faculty.

It is the aim of the Faculty so to administer the discipline of the school as to maintain a high standard of integrity and a scrupulous regard for truth. The attempt of any student to present as his own the work of another, or any work which he has not honestly performed, or to pass any examination by improper means, is regarded by the Faculty as a most serious offense, and renders the offender liable to immediate suspension. The aiding and abetting a student in any dishonesty is held to be an equally serious offense.

On examination or quizzes the student is expected. (a) to remain in the examination room until his examination is finished, (b) to refrain from talking, (c) to refrain from bringing notes and books into the examination room.

The possession of any material not allowed by the instructor during an examination is considered prima facie evidence of intention to use such material illegally.

DISCIPLINE

General Statement.—1. Through matriculation at the College of Mines and Metallurgy, a student neither loses the rights nor escapes the responsibility of citizenship.

2. Obedience to the law being a primary duty of the citizen, the conviction of the student for violation of law renders him subject also to disciplinary action on the part of the College.

3. A jury indictment for a felony or other offense of serious character suspends the student, without prejudice, until acquitted.

4. Illegal conduct, such as the drinking of intoxicating liquors, gambling, and dishonesty, renders the student subject to discipline.

5. The College, in common with other institutions, has for its orderly and efficient conduct, special regulations additional to the laws of the land. These special regulations are so easily available to all students that each student is charged with notice and knowledge thereof.

6. Persons not registered in the College when accused of misconduct that affects college life and work, if former or prospective students, will have the known circumstances inscribed in their record as a presumption against their moral character. They will not be later admitted to the College unless they can prove moral desirability.

7. All students are expected to show respect for properly constituted authority and to observe correct standards of conduct. Conduct inconsistent with general good order, or persistent neglect of work, or failure to respond promptly to official notices, may subject the student to discipline.

Students are trusted to conduct themselves properly. If, however, it becomes apparent that any student, by misconduct or by neglect of studies is doing harm to himself, to others, or to the College, the Faculty will use appropriate means of discipline.

The following penalties may be imposed: admonition; probation; suspension of social rights and privileges; suspension of eligibility for official athletic and non-athletic extra-curricular activities; suspension of eligibility for any student office or honor; publication of the name of the offender, his offense, and the penalty imposed; increase in the number of courses required for a degree; cancellation of credit for scholastic work done; suspension from the College; expulsion; or such other penalty as in the opinion of the Faculty Committee on Discipline seems proper.

Probation.—Disciplinary probation will be for a definite period and carries with it the following condition during the period of such probation: any further violation of College regulations during the time of probation will cause such student to be suspended for a period to be determined by the Faculty Committee on Discipline.

A student on probation may not hold office in any organization connected with the College, nor represent the College in any of its activities.

A student on probation who absents himself from any class exercise or neglects any class work, except for reasons considered imperative by his Dean, will thereby drop his name from the College rolls for the remainder of the session.

Absences and neglect on the part of such student, not explained to his Dean within one day—beforehand if possible—will be presumed to be without excuse and will effect the dropping above mentioned.

A student on probation may not be initiated into any social or honorary organization.

Suspension from the College.—A student suspended from the College shall remain off the campus of the College during the entire period of his suspension, excepting when summoned by an administrative official of the College, or when an appointment with an official has been previously arranged. A student while under suspension may not room or board in a fraternity or sorority house, dormitory, or rooming house where other students are living. He may not be initiated into an honorary or social organization. A student under suspension may not receive credit at the College of Mines and Metallurgy for college work done, by correspondence or in residence, at either this or any other institution during the period of suspension, except when allowed by the Faculty Committee on Discipline. This privilege shall not be allowed in cases involving cheating.

Expulsion from the College.—A sentence of expulsion means permanent severance from the College. A sentence of expulsion shall be reviewed by the administrative officers, who, when in doubt about its propriety, shall return the case to the trial committee with its reason for so doing.

These penalties may be imposed singly or in any combination upon individuals, or groups, or organizations.

In every case in which a student is found guilty of any offense by the Faculty Committee on Discipline and in any other matter in which an emergency arises, parents or guardians will be informed and asked to cooperate with the authorities.

Debts.—The College is not responsible for debts contracted by individual students or by student organizations, but the College will use all possible measures to force the payment of debts justly and regularly contracted by such persons. The College expects all students and student organizations to conduct themselves honorably in all commercial transactions.

Hazing.—A student who violates his pledge of hazing, or who engages in, instigates, or encourages any type of class rush not specifically approved by the College, will be liable to suspension or expulsion.

Bad Checks.—A student who gives the College a bad check, the fault not being that of the bank, and who does not make it good within five days will be dropped from the College. The College will not accept a check from a student who has once given a bad check.

ADMISSION REQUIREMENTS

Control Over Admission.—Admission to the College is under the control of the Faculty and administered by the Registrar.

GENERAL REQUIREMENTS

Sex.—Applicants of both sexes are admitted to all branches of the College on equal terms.

Age.—An applicant must be at least 16 years of age.

Character.—An applicant must furnish satisfactory evidence of good moral character.

Vaccination.—An applicant must present a certificate showing that he has had smallpox or has been successfully vaccinated or that attempts at vaccination have been made recently enough to satisfy the Health Officer.

Hazing Pledge.—The Legislature having forbidden hazing and rushing in State educational institutions under penalty of fine and imprisonment, each applicant is required to sign the following pledge:

"I pledge myself on my honor not to encourage or participate in hazing during my attendance at the College."

GENERAL SCHOLARSHIP REQUIREMENTS

Units.—Entrance requirements are stated in terms of units. A unit represents nine months of study in a subject in a secondary school, constituting approximately a quarter of a full year's work. A four-year secondary school curriculum should be regarded as representing not more than sixteen units of work.

Unit Requirements.—For admission fifteen units, with high-school graduation (see "Methods of Obtaining Admission Units"), are required as specified below. World history may not be counted if early or modern European history, either or both, is offered; and biology may not be presented by a student offering either botany or zoology. A student may enter with a condition in any one subject or group, except English, provided he has a total of at least fifteen acceptable units. In no case will more than four units be accepted from Section B.

ADMISSION REQUIREMENTS

29

	Units
1. English (required of every student).....	3
2. From the Mathematics Group in Section A below.....	2
3. Two units from each of any two of the three other groups in Section A below (Foreign Language Group, Natural Science Group, Social Science Group), total..	4
4. Additional from any group or groups in Section A...	2
5. Additional from Section A, or from Section B, or from Sections A and B together.....	4
Total	15

Section A

(The units column shows the number of units that may be offered in each subject.)

Subject	Units	Subject	Units
English Group		Natural Science Group	
English	3—4	Biology	1
Foreign Language Group		Botany	1
Czech	2—3	Chemistry	1
French	2—3	General Science	1
German	2—3	Physics	1
Greek	2—3	Physiography	½
Latin	2—3—4	Physiology and hygiene... ½—1	
Spanish	2—3	Zoology	1
Mathematics Group		Social Science Group	
Algebra	1—1 ½—2	Early European history....	1
Plane Geometry	1	Modern European history..	1
Solid Geometry	½	World history	1
Trigonometry	½	English history	½—1
General	1	American History	½—1
		Civics	½—1
		Economics	½

Section B

Any other accredited subject or subjects (but not fragments) counted toward graduation by the accredited secondary school except (1) drill subjects, such as penmanship, physical education, military training, etc.; (2) extra-curricular subjects, such as band, glee club, etc.; and (3) diversified occupations. A single unit in a foreign language may be counted in this section ½—4

Quality Provisions.—Quality, however, is more important than quantity. A course thoroughly mastered is worth more than one completed with low or even medium grades. Therefore any applicant ranking in the highest quarter of his graduating class in any fully accredited secondary school and also ranking in the highest quarter of the freshman class in the scholastic aptitude test given by the College in September may enter without admission conditions.

Furthermore, any conditional first-year freshman student (but not an "Individual approval student") who makes, in the College, in his first long session or its equivalent, at least thirty semester hours with an average grade of C will thereby absolve his admission condition. Otherwise it must be removed as provided under "How to Absolve Admission Conditions."

Advice as to Subjects in High School.—The evidence is strongly in favor of the Group A subjects as giving the best preparation for college. High-school students expecting to go to college are therefore strongly advised to choose as nearly as possible all of their subjects from that group. Certainly those expecting to specialize in foreign languages in college should begin in high school, and those looking forward to college work in the sciences, mathematics, engineering, medicine, business administration, statistics, or law should take at least one and a half years of algebra and one year of plane geometry in high school.

METHODS OF OBTAINING ADMISSION UNITS

The admission units specified are usually obtained by graduation from an accredited school, or by examination, or by a combination of the two. Limited opportunity is also offered by the University's Extension Teaching Bureau at Austin for units to be made by correspondence study. In addition, a teacher's certificate known as a high-school certificate of the second class yields the holder a few units, depending upon the number of acceptable subjects taken for the certificate.

(1) **Graduation from an Accredited School.**—No credit may be obtained without graduation. Within the limits of the above list, graduates of schools on the approved list issued by the State Department of Education are credited with the subjects they have completed in which the schools are accredited. In order to determine these units, they are required to present statements of their work made out by the superintendent or principal on the official blank of the College, to be had of the registrar. It is of the highest importance that the applicant send this blank, properly filled out, to the Registrar not later than September 10. Valuable time will be lost if he does not do so, and more if he has to send for it after he arrives. Without it he cannot be admitted at all.

The College has no accredited schools outside Texas, but it will usually accept, for work done in a school in another state, credits granted by the state university of that state; or, in the absence of such an institution, by another institution of recognized standing acquainted with the work of the school in question.

(2) **Examination.**—Any or all scholarship requirements may be met by passing the admission examinations. To obtain credit in any subject, the applicant must make a grade not lower than D. In grading papers in all subjects, account will be taken of the applicant's use of English. Excellence in one subject will not make up for deficiency in another.

Every natural science examination paper must be accompanied by a laboratory notebook.

Admission examinations are held twice a year, in September and in January.

The fall and winter series are held only at the College and begin on September 5 and January 22, respectively. Requests for full information in regard to these series should be addressed to the Registrar of the College.

It is strongly urged that applicants desiring to enter the College in September attempt the January examinations. It is permitted to divide the subjects between the September and January examination periods, but credits obtained at the January examinations lapse unless the applicant passes the deferred examinations the following fall; and credits obtained at the fall examinations, if less than the total number required, are not valid later.

Junior-Senior High School Graduates.—Applicants who have passed through and graduated from a junior-senior high-school organization in which the usual type of college entrance subjects were not given in the junior school may be admitted on twelve acceptable units completed in the senior high school (the last three grades), including the unit requirements listed under "Unit Requirements," plus three unspecified units from the junior high school.

ADMISSION BY INDIVIDUAL APPROVAL

At the discretion of the Registrar, an applicant over 21 years old may be admitted without examination. Such admission does not confer special privileges but, on the contrary, puts the applicant under special obligations. Each applicant proceeds as follows:

1. He must make application on the official blank (to be had of the Registrar), giving the information there desired.
2. He must furnish evidence that he has substantially covered the ground of the units required of other candidates, and that he has sufficient ability and seriousness of purpose to do the work desired with profit to himself and to the satisfaction of the College.
3. He must show, by the writing of a composition, that he has an adequate command of English.

Applicants are advised to send their applications and credentials in advance of their coming to El Paso.

Admission by individual approval contemplates applicants who have not recently attended school and therefore could not pass the admission examinations.

Students so admitted may register for courses other than freshman courses only with the approval of the chairman of the department concerned and the Dean, given because of evidence of special fitness. This

approval can rarely be granted, however, because most individual approval students have less preparation than any other students in the College.

Students admitted by individual approval cannot become candidates for degrees until they have satisfied the admission requirements. As to how to remove admission conditions, see the following section.

HOW TO ABSOLVE ADMISSION CONDITIONS

General.—Admission conditions may be removed (1) by taking, with the approval of the Registrar, the regular admission examination in subjects not studied by the student in the College; (2) by correspondence work (a few courses for this purpose are offered in the University Bureau of Extension Teaching); (3) by counting work done in the College. If the second or third plan is used, the prescribed admission units must be satisfied by work in the corresponding subjects in the College; the elective admission units may be absolved by any College work. For the purpose of satisfying admission conditions, a course of six semesters hours counts as the equivalent of one and one-half units. Courses used to absolve admission requirements will not count also toward a degree. If a student does not satisfy his admission condition within two years after admission to the College, he must present one additional unit (elective) for each year that his condition remains unsatisfied. Conditions may not be removed by taking admission examinations after the student has completed sixty semester hours of college work. They may then be removed only by work done in the College.

Individual Approval Students.—Students admitted by individual approval to English 1 will, on completing that course, be given credit also for three admission units in English. Similarly, students admitted to freshman mathematics will, on completing that course, receive credit also for two admission units in algebra and one in plane geometry. Further, students admitted, without any entrance credit, to the College by individual approval and making during their first long session, or its equivalent, at least thirty semester hours with an average grade of C will in addition absolve the admission condition in the six elective units. If this average is not made, the six elective units (see "Scholarship Requirements") must be made up by one or more of the methods given in the preceding paragraph. The remaining prescribed units must be made up in one or more of the ways explained in the preceding paragraph. The penalties and restrictions of that paragraph also apply to individual approval students.

STUDENTS FROM OTHER COLLEGES

A student seeking admission from another college must present: (1) a letter of honorable dismissal; (2) a vaccination certificate; (3) an official transcript of his entire college record, including his admission units. Much trouble and time will be saved by sending this official record to the Registrar not later than September 10. Students are not allowed to register until the proper certificates are presented.

Students in other institutions who desire a degree from the College

should not wait until their senior year to transfer. If they do, they may not be able to complete all remaining requirements in one year.

A student who has failed in his work at another institution and is not entitled to continue there will not be admitted to the College. Others who have failed may be refused admission, or may be admitted on "special observation" or "final trial" or on any other condition that may seem desirable.

In as much as students taking all their work in the College must have a C average for a degree, only such work completed in another institution as altogether averages the equivalent of our grade of C will be accepted here.

An applicant who has attended another collegiate institution is not at liberty to disregard his collegiate record and apply for admission to the College on the basis of his high-school record, but is subject without exception to the regulations given above.

All credits given students from other colleges are conditional. If their work here is of low grade, the amount of credit given to individual students may be reduced.

MINING AND METALLURGY

The unit requirements for admission to Engineering are as follows:

Subject	Units
1. English	3
2. Mathematics	
Algebra	1½
Plane Geometry...	1
Solid Geometry...	½
3. Two units from each of any two of the three other groups in Section A (Foreign Language Group, Natural Science Group, Social Science Group) total....	4
4. Additional from any group or groups in Section A....	1
5. Additional from Section A, or from Section B, or from Sections A and B together.....	4
	—
Total.....	15

Under 5 above, as many as two units each may be offered in drawing and manual training.

All other provisions with reference to admission to the College apply also to admission to Mining and Metallurgy, except that neither the English nor the mathematics requirement may be absolved under "Quality Provisions."

SCHOLASTIC REGULATIONS

REGISTRATION

For the Long Session of 1940-1941 the registration days are as follows:
First semester: September 11-12, Wednesday-Thursday.

Second semester: January 24-27, Friday-Monday, registration of new students.

January 29, Wednesday, registration of readmission students.

Late Registration.—Students are urged to register during the first days set aside for registration. Late registration necessarily handicaps the student because of his missing classes. The difficulty in scheduling classes due to closed sections may give the student an undesirable schedule which might have been avoided if early registration had been made. Several days have been set aside for late registration, chiefly to benefit those students who, for some reason, cannot register at the beginning. It is a distinct advantage to register as early as possible.

Non-Credit Students.—Permission to attend a course or courses without credit is sometimes granted. A student not registered for credit in the College is required to pay the same fees and deposits as a regular student.

Attendance by a registered undergraduate as a visitor in a course is allowed only with the approval of his Dean and under special restrictions. The payment of regular fees and deposits is required.

EXPLANATION OF COURSES

Definitions.—The unit of measure for credit purposes is the semester hour, which means one hour of recitation (or the equivalent in shop or laboratory work) per week for one semester of eighteen weeks, unless otherwise specified. For each classroom hour two hours of preparation are expected. Three hours of shop or laboratory work are counted equivalent to one classroom hour and the preparation for it.

Most courses meet three hours a week, having a credit value of three hours for one semester, or six hours for both semesters.

Notation.—Courses are designated by numbers which indicate both rank and credit value in semester hours, and by letters which indicate the part of a course referred to or the semester or term in which it is given.

Rank and Credit Value.—A number between 200 and 299 indicates a value of two semester hours, one between 300 and 399 a value of three semester hours, etc., except that when the value is six semester hours the numbers between 0 and 99 are used, instead of the numbers between 600 and 699. The two digits on the right indicate the rank of the course; if between 0 and 9 the course is of freshman rank; if between 10 and 19, of sophomore rank; if between 20 and 59, of junior rank; if between 60 and 79, of senior rank.

A student may not receive credit in one department for two courses whose numbers have the same right-hand digits—for example, Physics 12 and Physics 812.

No courses will be given which carry only one semester hour of credit.

Certain beginning or freshman courses are not numbered, but are marked **A** and have a value of six semester hours.

Courses of junior or senior rank are referred to as **advanced** courses.

Use of Letters.—The lower-case letters **f** (first semester), **s** (second semester), following a course number show the semester of the long session in which the course is given. The notation **fs** indicates that the course is given in the first semester and repeated in the second semester. A course not so designated runs throughout the long session and in such a case the lower-case letter **a** means the first half of such a course, the letter **b** the second half. For example, Chemistry 422 is a course running through the entire long session and carrying four semester hours of credit and English 1 as 1s is the first half of English 1 (freshman English) given in the second semester and carrying three semester hours of credit, which, however, can not be counted for graduation until English 1b, the second half of English 1, has been completed.

AMOUNT OF WORK

Engineering Students.—Freshmen may not register for more than eighteen semester hours for each semester. Sophomores, juniors, and seniors may not register for hours in excess of those prescribed in the course of study except in accordance with the grade point rule (252 grade points during their preceding semester), and in no case whatever may they register for more than twenty-one semester hours.

Other Students.—The normal load for beginning freshmen is fifteen hours. Unusual circumstances sometimes make it necessary for a student's program to include sixteen or seventeen hours. A maximum of eighteen hours may be taken only with the consent of the Dean.

After the first semester or summer session at the College, students may not register for more than fifteen hours per week unless during the preceding semester they have made a score of 252 grade points, or 202 points during the preceding summer semester. Students may not register for more than eighteen hours per week unless the score has been 297 points for the preceding semester, or 234 points in the preceding summer session.

In no case may a student register for more than twenty-one semester hours per week.

ADDING AND DROPPING COURSES

After his registration for the session a student may add a course only with the approval of his Dean. No course may be added, however, after the dates specified in the Calendar.

For weighty cause, a student may drop a course with the consent of his Dean.

On the recommendation of the instructor concerned, approved by his Dean, a student may at any time be required to drop a course because of neglect or for lack of preparation.

A student in attendance during the long session shall not be permitted

to drop a course within 30 days of the beginning of the final examinations for that semester.

CLASS ATTENDANCE AND ABSENCES

Absence from Class.—Uniform and punctual attendance upon all exercises at which the student is due is strictly required. Absences will be considered as non-performance of work.

When the number of absences exceeds one-eighth of the total number of exercises in any subject during a semester, the student concerned will be reported to his Dean who may exclude him from further participation in all classes, or who may give him special permission to continue.

A student excluded from classes for excessive absences in any subject will immediately lose all absence privileges in all subjects for the remainder of the semester, and will thereafter be subject to immediate and final dropping from the rolls of the College for further absences. Students on Special Observation or Final Trial will be given no absence privileges.

Absences incurred by a student while acting as an authorized representative of the College will receive special consideration from the Administration.

In the interest of the public health, every student is required to report promptly to his Dean all absences due to illness of any kind.

A student is held responsible for absences incurred because of late registration.

Absence from Quiz.—A student absent from an intra-semester examination or quiz is graded zero on that quiz, unless for urgent reason he is given by the instructor the privilege of taking a postponed examination at a time to be set by the latter.

Tardiness.—Serious or repeated tardiness will be considered as equivalent to absence, and reported as such.

OFFICIAL BULLETIN BOARDS

Official bulletin boards are maintained in the several buildings and departments. These are used principally for posting official notices of changes of regulations, class meetings, special official meetings, etc., as found necessary by the Regents and Faculty. Such notices have the full official force and effect. Students are held responsible for knowledge of and compliance with such notices.

EXAMINATIONS

Semester Examinations.—The Faculty has ruled that exemptions from examinations may not be given. To encourage preparation for examinations, the Faculty has further ruled that during the last seven days of each semester before examinations no written examination or review shall be given; and all essays, theses, synopses, and the like must be handed in before this period begins.

In all examinations, account is taken of the student's use of English and

of the form of the paper in general, the grade being lowered because of deficiencies in these regards as well as in the subject-matter proper.

Absence from Semester Examinations.—A student who is compelled to be absent from a semester examination on account of sickness or other imperative cause should petition his Dean, beforehand if possible, for permission to postpone the examination. In cases of illness the petition must have the approval of the Health Officer. Following permission for postponement from his Dean, the student should also secure from him permission to take the postponed examination either at the next regular examination in the subject, or in any event, not later than twelve months after the examination was postponed, and should file notice thereof with the Registrar not later than seven days before the beginning of the examination period concerned.

A student absent from a semester examination without his Dean's excuse is graded **F** and required to take the semester's work over again if he desires credit for it.

Postponed and Removal-of-Condition Examinations.—Postponed and removal-of-condition examinations are held at regular dates fixed by the Calendar. A student may take one at another time only at a regular examination in a course and then only with the permission of his Dean. In any event, he must file an application for examination with the Registrar on or before the seventh day preceding the first day of the examination period.

A student who takes and fails to pass a removal-of-condition examination will be given a grade of **F** in the course. Absence from one of these examinations, after permission has been granted, will have the same effect as a failure, unless the student presents a satisfactory excuse to his Dean within a week after the date of the examination.

Advanced Standing Examinations.—Applications for advanced standing examinations must be approved by the chairman of the department, by the student's Dean, and filed with the Registrar at least seven days before the examination period as fixed by the Calendar. Credit has rarely been given for courses by examination, and will be given still more rarely in the future. In fact, advanced standing examinations for other than courses corresponding to admission credits will be allowed only in very exceptional cases, and it may be expected that they will be searching in character, that in length they will extend to four hours for each semester covered, and that the papers will be graded with great strictness.

In order to pass an advanced standing examination a grade of at least **B** must be secured.

GRADES OF SCHOLARSHIP

Grades.—The standing of the student in his work is expressed by grades made up from class work and from examinations. There are six grades: **A** (excellent), **B** (good), **C** (fair), **D** (low pass), **E** (failure, but with privileges of petitioning to continue the course and to take removal-of-condition exam-

ination), **F** (bad failure, and, if a semester grade, without further current privileges in the course).

To pass in a course, it is necessary to secure a grade of at least **D** both on class work and on semester examination, considered separately. Grades are given by semester; however, in a course extending through two semesters no credit is given until both semesters of the course have been completed.

Effect of a Semester Grade of E.—A student who fails to pass in a course but makes a grade of **E** is called "conditioned," and is allowed opportunity to remove the condition by a second examination at the next regular examination period in that subject, at the discretion of his Dean, but in any event he must take the condition examination not later than twelve months after the condition was received. A condition successfully removed becomes **D**.

In a subject continuing beyond one semester, the instructor may, by sending to the Registrar the proper credit notice, raise an **E** of an earlier semester to **D** because of a grade of **C** or better done in a later semester, but no grade may be altered after the registration period of the next succeeding semester.

Higher Work after Failure.—If a student makes an **F** in a course, he may not take up a higher course in the same subject until the course is taken again. If a student makes an **E** in a course, he may take up a higher course in the same subject only with the written consent of the instructor concerned, approved by his Dean.

Uncompleted Work.—The Grade of Incomplete: The grade of **Incomplete** may be obtained by three distinct and separate methods:

1. At any intra-semester grade period, if the student has not completed his work for any particular course, the instructor may give a grade of **Incomplete** in the course.

2. At the end of any semester a student may be given a grade of **Incomplete** if he unavoidably is absent from the semester final examination in a course, and such absence is approved by the respective Dean. This procedure obligates the student to take a **Postponed examination** in the course as part of the removal-of-incomplete grade.

3. At the end of a semester a grade of **Incomplete** may be given in exceptional circumstances and with the permission of the instructor and the proper Dean. When the grade of **Incomplete** is given at the end of the first semester, the work missed must be completed before grades are reported at the end of the second semester. If the **Incomplete** is given at the end of second semester, it must be removed before grades are recorded for the fall semester following.

When the student is given the grade of **Incomplete**, grade points for the course will be considered as if the grade were "**F**" in calculating the standing of the student.

A student on Special Observation whose score cannot be determined because of grades of **Incomplete** will be placed on **Final Trial**; and a student

on Final Trial whose score cannot be determined because of grades of **Incomplete** will be dropped from the rolls of the College.

When a student is late or dilatory in handing in any required work of any nature, his instructor may give him, depending on the circumstances, a lowered grade, or even zero, on the late performance in question.

A student who has not completed the required volume of work in a course at the end of a semester will receive a grade within the calculation of which will be included various uncompleted pieces of work rated at zero. When such final semester grade results in an **E** the instructor and respective Dean may require the student to complete the missing work as part of his removal-of-condition obligation.

Repetition of Course.—If a student repeats a course, his official grade is the last one made.

REPORTS

Intra-Semester Reports.—On November 12 and March 24 reports are due on all students making a grade of **D** or below from instructors to the Registrar, who will then issue notices to parents or guardians of students doing work below the passing grade (**D**). Grades reported at intra-semester periods represent the average grade to date in the given course.

Semester Reports.—Reports are sent out to parents and guardians at the end of each semester for all students. Self-supporting students over 21 years of age, if they request it of the Registrar in writing, may have their reports sent to them instead of to their parents.

HONORS

At the end of each semester, the Registrar will publish an honor roll. To be eligible for this honor roll, a student must be registered for not less than 15 semester credit hours, pass all work taken, and attain an average of 18 grade points per semester hour in all work taken for credit during the semester. The grade point system shall be used in determining the average number of points per semester hour attained by the student.

Furthermore, if a student graduates from the College of Mines and Metallurgy and has six times, or more, attained the semester honor rolls, his or her name shall appear in the catalogue as part of a permanent honor roll.

CLASSIFICATION OF STUDENTS

Students are classified as regular and irregular. Under **Regular Students** are grouped those taking twelve or more semester hours of work prescribed for a degree. Under **Irregular Students** are grouped those taking less than twelve semester hours.

They are further classified as first-year, second-year, and upper division students, dependent on their time of residence at a college or university. A first-year student is one who has resided not more than two semesters; a second year student is one who has resided two semesters and not more than four semesters; upper division students are those who have resided

more than four semesters. A term of the summer session is equal to one-half semester.

Engineering Students.—Until the completion of thirty semester hours of prescribed work in addition to the full admission requirements, engineering students are freshmen; then, until sixty-six semester hours are completed, sophomores; then, until one hundred and four semester hours are completed, juniors; then, seniors until graduation.

Other Students.—Until the completion of thirty semester hours in addition to the full admission requirements, a student is classified as a freshman; then, until sixty semester hours are completed, a sophomore; then, until ninety semester hours are completed, a junior; then, a senior until graduation.

STANDARD OF WORK REQUIRED

Definitions.—The grades given are defined under "Grades of Scholarship."

A course with one classroom hour for two semesters when passed implies a credit of two semester hours; a course with three classroom hours, for one semester carries a credit of three semester hours, and so on. But in the preceding cases it is also expected that the student will spend two hours of preparation for each classroom hour. In general, when the sum of the clock hours spent in lecture, recitation, laboratory and preparation is divided by three, the result will be approximately the semester hours of credit for the course.

In scoring, grades will count as follows: A, 21 points per semester hour; B, 18 points; C, 15 points; D, 12 points; E, 6 points; F, 0; Inc., 0. Zero (0) courses are not counted in scoring.

Required Minimum.—To avoid Special Observation, Final Trial, or being dropped from the rolls of the College for scholastic undesirability, the student must meet the following standard of work at the intra-semester and semester report periods.

Students taking less than twelve semester hours must pass in all the work taken and must make a grade point average per semester hour not less than that required of other students of the same length of attendance.

First-year students taking twelve or more semester hours must make a score of either 108 points in twelve semester hours, or 126 points in nine semester hours.

Second year students taking twelve or more semester hours must make a score of 126 points in twelve semester hours.

Upper division students taking twelve or more semester hours must make a score of 144 points in twelve semester hours.

In interpreting this section, a student taking twelve or more credit hours with an included course of four or more credit hours shall not be placed on Special Observation or Final Trial, or be dropped from the rolls for scholastic reasons if he makes, in the courses taken, not less than the following grade point count: 117 points for first-year students, 135 points for second-year students, or 162 points for upper division students, provided he does not have a grade of F in more than one course.

Conferences.—The Deans of the Divisions of Arts and Sciences and Engineering will confer with all students in the College who are doing unsatisfactory work, both at the intra-semester dates and at the end of the semester. The object of these conferences will be to advise the student for his improvement, to offer him opportunity for renewed effort with such assistance as parents and instructors may be able to furnish, and to encourage or to warn him as the case may demand. First-year students also have the opportunity of conferring with Faculty Advisers.

Failures.—The College has prescribed a certain minimum of work which a student must pass at the intra-semester dates and at the end of the semester or be dropped from the College. (See "Required Minimum of Work" rule.) Before a student is dropped from the College for failure in work he will be given two trials or chances, called respectively "Special Observation" and "Final Trial." This will not apply to a student who fails in all his courses. In such case, if the failure occurs at the end of a semester, the student must withdraw until he satisfies the requirements of "Return After Failure."

Special Observation.—The first failure of a student to pass in the required minimum of work will place such a student under Special Observation, which is a first warning to both student and parent or guardian of unsatisfactory work.

Failure to pass in the required minimum of work at any time after the first day of Special Observation puts the student on Final Trial. Sometimes the first failure is so serious that the parents are advised to withdraw the student at once from the College. Immediate withdrawal after serious failure often enables him to make other arrangements for his education without loss of time. A student on Special Observation whose score cannot be determined because of postponed (Inc.) grades is put on Final Trial.

Final Trial.—A student on Special Observation who withdraws from the College before the end of the semester and who re-enters within four semesters is put on Final Trial. A student on Special Observation whose score cannot be determined because of postponed or incomplete grades will be put on Final Trial. A student on Special Observation who fails to pass in the required minimum of work is put on Final Trial. This is a last and final warning to student and parent. Final Trial will last for a consecutive period of enrollment equivalent to two semesters, after which the student will be restored to good scholastic standing. A student on Final Trial who fails in the required minimum of work will be dropped from the College. A student on Final Trial who withdraws from the College may not register again before the beginning of the corresponding semester in the next long session unless he shall remove his deficiencies in an intervening summer session as prescribed hereafter.

A student on Final Trial whose score can not be determined because of postponed (Inc.) grades will be dropped from the rolls of the College.

Restoration to Good Standing.—A student who has been placed on Special Observation or Final Trial will be restored to good standing at the end

of any semester in the long session in which he makes a C average in at least twelve semester hours. If he be registered for less than twelve but for nine or more semester hours, he must pass all work taken with a grade of C or better and in addition must make at least 171 grade points.

Class Attendance.—The College expects, and has a right to expect, that a student on Special Observation or Final Trial will attend classes with unflinching regularity, will be very punctual in reports and other written work, and will make every effort to show marked improvement in his courses. A failing student unwilling to put forth every effort to keep up with his classes should be withdrawn from the College.

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

Return after Failure.—A student who has withdrawn while on Special Observation or Final Trial, or who has been dropped, may register subsequently in good scholastic standing only if he has remained continuously out of school as long as four semesters of the long session.

A student on Final Trial who withdraws during the first semester or who is dropped by reason of failure during or at the end of the first semester may register again not earlier than the next summer session. If he attends the summer session he may register as on Special Observation at the beginning of the next long session provided he makes for the summer session scores of 144 points in twelve semester hours if a first year student, or 162 points in twelve semester hours if a second year student, and of 180 points in twelve semester hours in other cases. If he does not attend the summer session, or if he attends the summer session and makes less than the foregoing scores, he may register as on Final Trial at the beginning of the long session.

A student on Final Trial who withdraws during the second semester or who is dropped by reason of failure during or at the end of the second semester may not register earlier than the second semester of the next long session unless he attends the intervening summer session and makes scores of 144 points in twelve semester hours if a first-year student, of 162 points in twelve semester hours if a second-year student, and of 180 points in twelve semester hours in other cases. Should he make such a record he may register as on Final Trial at the beginning of the next long session. Should his record exceed the foregoing by 12 respective points he may register on Special Observation. Otherwise he may register not earlier than the beginning of the succeeding second semester and then only on Final Trial.

A student who is on Final Trial at the end of a second semester may register as on Special Observation at the beginning of the next long session if he attends the intervening summer session and makes, in the work of the second semester and the summer session combined, a score of 195 points in fifteen semester hours if a first-year student, of 210 points in fifteen semester hours if a second-year student, and of 225 points in fifteen semester hours in other cases.

A student who is on Special Observation at the end of a second semester

may register in good scholastic standing at the beginning of the next long session if he attends the intervening summer session and makes, in the work of the second semester and the summer session combined, a score of 144 points in fifteen semester hours if a first-year student, of 162 points in fifteen semester hours if a second-year student and 180 points in fifteen semester hours in other cases.

A student shall not receive credit for work done at another institution during a time when he was ineligible to attend the College of Mines and Metallurgy, nor will the College admit a student from another institution who is ineligible to continue there.

The foregoing requirements and the rules governing Special Observation and Final Trial apply to all students, and the Deans are without discretion except in the case of mature students over 25 years of age.

REQUIREMENTS FOR DEGREES AND CERTIFICATES

STUDY OF CONSTITUTIONS OF UNITED STATES AND TEXAS REQUIRED

The Forty-Fifth Legislature enacted a law requiring all students entering tax supported educational institutions after September 1, 1937, to secure six semester hours of credit in Federal and Texas Constitutions before being awarded degrees or teachers' certificates. The completion of Government 10 satisfies the requirements of this law.

The Forty-first Legislature required three semester hours of credit in Government for students entering tax supported institutions before September 1, 1937. The completion of Government 310 satisfies the requirements of this law.

ENGINEER OF MINES

The degree of Engineer of Mines may be conferred upon graduates of the College of Mines and Metallurgy who attended a college prior to September 1, 1931, and who have received the degree of Bachelor of Science in Mining Engineering and who have completed at least two years of successful professional work in mining or metallurgy, subsequent to receiving the bachelor's degree, upon the presentation and acceptance of a satisfactory thesis.

BACHELOR OF SCIENCE IN MINING ENGINEERING

The completion of one of the following four-year curricula and the satisfaction of other general requirements lead to the degree of bachelor of Science in Mining Engineering. If a student makes an average grade of less than twelve grade points when first taking the courses set forth in the first three semesters of any one of these curricula he will be considered as lacking in aptitude for the degree, and he and his parents or guardians will be advised that he cannot be allowed to continue. He may be permitted to register for other majors of study.

Each student anticipating a degree of Bachelor of Science in Mining Engineering in either the Mining, the Metallurgy, or the Mining Geology option must spend at least one summer in practical work related to the degree desired and must furnish satisfactory evidence to the proper authorities of a summer so spent.

REQUIREMENTS FOR DEGREES

45

First Year

First Semester	Sem. Hrs. Credit	Second Semester	Sem. Hrs. Credit
Chemistry 801a	4	Chemistry 801b.....	4
Drawing 301	3	Drawing 302	3
English 1a	3	English 1b.....	3
Geology 1a.....	3	Geology 1b	3
Mathematics 803a.....	4	Mathematics 803b.....	4
Physical Training .....	..	Physical Training .....	..
	<hr style="width: 100%; border: 0.5px solid black;"/>		<hr style="width: 100%; border: 0.5px solid black;"/>
	17		17

Second Year

First Semester	Sem. Hrs. Credit	Second Semester	Sem. Hrs. Credit
Chemistry 311	3	Chemistry 413.....	4
Engineering 312.....	3	Engineering 313.....	3
English 310	3	Mining 310	3
Geology 316	3	Geology 217	2
Mathematics 413a.....	3	Mathematics 13b.....	3
Physics 812a	4	Physics 812b	4
	<hr style="width: 100%; border: 0.5px solid black;"/>		<hr style="width: 100%; border: 0.5px solid black;"/>
	19		19

SUMMER WORK: Engineering 414: Eight hours a day for four weeks 4

Third Year

Mining Option

First Semester	Sem. Hrs. Credit	Second Semester	Sem. Hrs. Credit
Chemistry 323.....	3	Chemistry 324.....	3
Engineering 832a.....	4	Engineering 832b.....	4
Geology 321	3	Geology 322.....	3
Mathematics 325.....	3	Physics 221.....	2
Metallurgy 321.....	3	Metallurgy 423.....	4
Mining 321.....	3	Mining 322.....	3
	<hr style="width: 100%; border: 0.5px solid black;"/>		<hr style="width: 100%; border: 0.5px solid black;"/>
	19		19

SUMMER WORK: Mining 224: Eight hours a day for two weeks 2

Metallurgy Option

First Semester	Sem. Hrs. Credit	Second Semester	Sem. Hrs. Credit
Chemistry 323.....	3	Chemistry 324.....	3
Chemistry 325.....	3	Chemistry 326.....	3
Engineering 832a.....	4	Engineering 832b.....	4
Mathematics 325.....	3	Physics 222.....	2
Metallurgy 321.....	3	Metallurgy 423.....	4
Mining 321.....	3	Geology 322.....	3
	<hr/>		<hr/>
	19		19

Mining Geology Option

First Semester	Sem. Hrs. Credit	Second Semester	Sem. Hrs. Credit
Chemistry 323.....	3	Chemistry 324.....	3
Engineering 832a.....	4	Engineering 832b.....	4
Geology 321.....	3	Geology 322.....	3
Mathematics 325.....	3	Geology 427 or 423.....	4
Metallurgy 321.....	3	Physics 222.....	2
Mining 321.....	3	Mining 322.....	3
	<hr/>		<hr/>
	19		19

SUMMER WORK: Mining 224: Eight hours a day for two weeks 2

Fourth Year

Mining Option

First Semester	Sem. Hrs. Credit	Second Semester	Sem. Hrs. Credit
Engineering 350.....	3	Engineering 354.....	3
Geology 264.....	2	Engineering 431.....	4
Government 10a.....	3	Government 10b.....	3
Mining 367.....	3	Mining 269.....	2
Metallurgy 261.....	2	Mining 231.....	2
Economics 312.....	3	Mining 261.....	2
Mining 260.....	2	Mining 262.....	2
	<hr/>	Mining 074 (Senior Trip)...	0
	18		<hr/>
			18

Metallurgy Option

First Semester	Credit Sem. Hrs.	Second Semester	Sem. Hrs. Credit
Engineering 350.....	3	Engineering 431.....	4
Government 10a.....	3	Government 10b.....	3
Metallurgy 362.....	3	Metallurgy 364.....	3
Metallurgy 361.....	3	Metallurgy 473.....	4
Mining 367.....	3	Economics 312.....	3
Metallurgy 263.....	2	Mining 269.....	2
Metallurgy 265.....	2	Metallurgy 074 (Senior Trip).....	0
	—		—
	19		19

Mining Geology Option

First Semester	Sem. Hrs. Credit	Second Semester	Sem. Hrs. Credit
Economics 312.....	3	Engineering 354.....	3
Government 10a.....	3	Government 10b.....	3
Geology 264.....	2	Geology 463 or 427.....	4
Geology 418.....	4	Geology 361.....	3
Elective.....	3	Mining 269.....	2
Mining 367.....	3	Elective.....	3
	—	Geology 074 (Senior Trip).....	0
	18		—
			18

GRADUATE COURSES

Through a special arrangement with the Graduate School of the University of Texas, provision is made for graduate credit in certain departments. Students are advised to secure further information from the Registrar.

BACHELOR OF ARTS

General Provisions.—No degree will be conferred except publicly and at Commencements.

All candidates are expected to attend in person the Commencement at which their degree is to be conferred unless absent for good cause, in which case they will petition the Registrar at least one week in advance, giving the reason for their absence.

No degree will be conferred without a residence of at least two long session semesters, or five summer session terms, or one long session semester and two summer session terms or an equivalent.

At least thirty semester hours of work counting toward the degree must be completed in residence.

At least twenty-four of the last thirty semester hours offered must be taken in the College.

At least six semester hours in advance courses in the major subject must be completed in residence.

Not more than thirty semester hours of credit offered for a degree shall have been secured from other institutions by extension, correspondence, or both.

A student registering either for the first time or in a later year may obtain a degree according to the requirements of the catalogue then in force, subject, however, to the restriction that all the requirements for a degree must be completed within six years of the date of the catalogue chosen.

If any semester of a freshman course, taken to meet the requirements under Course Outlines, is finished after ninety semester hours have been completed, that semester of the course will not count toward the required minimum of 120 semester hours. If any other course of freshman rank is finished after ninety semester hours have been completed, it will count for only two-thirds of its normal value. If a condition in a course of freshman rank is removed during the session of graduation, that course will count for only two-thirds of its normal value. A condition, made by a candidate in the last semester of his session of graduation, may not be removed until the succeeding time for removal of conditions.

Special Provisions.—Upon completion of sixty semester hours of work, including the courses specified for the first and second years in the outline for one of the various majors, the student must petition the Faculty through the Registrar for permission to **become a candidate for a degree**. This petition will not be accepted unless the average grade of such work completed is C or better and all admission requirements have been satisfied.

Upon completion of ninety semester hours of work as set forth in the outline for the chosen major, the student will again petition the Faculty through the Registrar for permission to **continue his candidacy for a degree**. This petition will not be accepted unless the average grade of such work completed is C or better and all admission requirements have been satisfied.

The student must make an average of at least fifteen points per semester hour in the courses taken at the College which are required and counted toward the degree, an **A** grade on a semester hour counting as 21 points; a **B** grade as 18 points; a **C** as 15 points; a **D** as 12 points; an **E**, an **F**, or an **Inc.**, as zero. The Faculty reserves the right to demand grades of **C** or better in certain courses when they are important as prerequisites or as parts of majors or minors.

A student majoring in a department which requires a major examination must pass a general four-hour written examination in his major subject on the date fixed in the Calendar next preceding the completion of the work required for the degree. At the discretion of the department concerned, one hour of oral examination may be substituted for one hour of the written examination. The chairman of the department in which the major is taken fixes the place of the examination and supervises the giving of it. In setting this examination, the Faculty of the department will take into account the particular courses elected by the student, but will expect a more mature and comprehensive knowledge than is required in the regular semester examinations.

A student who fails to pass the major examination may take the examination on the next date provided in the Calendar for such examinations, but in no case will a special examination be given.

A study of the Constitutions of the United States and of Texas is required by law.

Concentrations.—Major and minor fields of concentration must be chosen from the following groups in accordance with the limitations indicated:

Group A

Major: Biological Sciences, **Chemistry, Geology, **Mathematics, **Physics.
***Minor:** Biological Science, **Chemistry, Geology, **Mathematics, **Physics.

Group B

Major: Business Administration, Economics, Education, (two minors required), English, French, History, Music, Spanish.
Minor: Biological Sciences, Business Administration, Chemistry, Economics, Education, English, French, Geology, Government, History, Journalism, Music, Mathematics, Psychology, Physics, Public Speaking, Sociology, Spanish.

Course Requirements.—In order to secure a Bachelor of Arts degree, the following minimum course requirements must be met:

*A different minor may be chosen only with the permission of the head of the major department and the approval of the Dean.
 **Mathematics 803 required for majors in Chemistry, Mathematics, and Physics; and for minors in Mathematics and Physics. Chemistry 801 is required for majors and minors in Chemistry.

1. Not less than twenty-four semester hours, at least twelve of which must be advanced courses, in a major subject chosen from one of the major groups listed under "Concentrations."

2. Not less than eighteen semester hours, at least six of which must be of advanced courses, in another subject chosen as a minor (exception—Education, for which two minors are required), in accordance with the limitations indicated in the concentration groups.

3. Twelve semester hours in English (English 1 and 12).

4. Completion of Course 12 in one foreign language, either modern or ancient.

5. Six semester hours in each of any of the natural (laboratory) sciences.

6. Six semester hours in Mathematics or numbered courses of Latin or German or Greek. Any hours in numbered courses of Latin or German or Greek offered in satisfaction of the Mathematics requirement may not be used to satisfy Requirement 4 or as a part of a major or minor.

7. †Six semester hours in American and Texas Government (Government 10).

8. Three semester hours in philosophy or psychology.

9. Six semester hours in **social science in addition to requirements 7 and 8.

10. Not less than a total of thirty semester hours of advanced courses and not more than a total of sixty-six semester hours in the major and minor subjects.

11. Enough other courses to make at least one hundred and twenty semester hours.

12. Physical Training without credit as prescribed in the Freshman year.

Order and Choice of Courses.—Students are urged to follow the arrangements of courses by years as suggested below with such minor variations as may be necessary because of special departmental requirements as shown under "Course Outlines."

*Botany, biology, chemistry, geology, zoology.

†For students enrolling after September 1, 1937; for students enrolling prior to September 1, 1937, Government 310 is required.

**Economics, government, history, philosophy, psychology, sociology.

‡Students taking Chemistry 801, 311, and 413 may count the last three semester hours as advanced; those taking Mathematics 803 and 13 may count the semester hours in excess of the first twelve as advanced.

Freshman Year.—English 1; foreign language 1; science, six semester hours; mathematics, six semester hours; elective or major subject, six semester hours; physical training, no credit.

Sophomore Year.—English 12; foreign language 12; another science, six semester hours; major subject, six semester hours; minor subject, six semester hours.

Junior Year.—The student's course program must be approved by the head of his major department and should include: Government 10; philosophy or psychology, three semester hours; major subject (advanced), six semester hours; minor subject, six semester hours; elective (advanced), six semester hours; elective, three semester hours.

Senior Year.—The student's course program must be approved by the dean and should include: major subject (advanced), six semester hours; minor subject (advanced), six semester hours; elective (advanced), six semester hours; elective (not Freshman subjects), twelve semester hours.

Course Outlines.—A student should choose his major subject as early as possible. He must then pursue it in accordance with the outline provided for that subject.

BUSINESS ADMINISTRATION MAJOR

Minor—See Group B under "Concentrations"

Requirements

	Hours
1. Business Administration 311, 314, 432, 420, and ten additional semester hours of business administration, at least four of which must be advanced	24
2. Minor subject, eighteen semester hours, six of which must be advanced	18
3. English 1 and 12	12
4. †Foreign language—the completion of a course numbered 12	12
5. Science (laboratory)—six semester hours in each of any two of the following sciences: botany, biology, chemistry, physics, geology, zoology	12
6. Mathematics or numbered courses of †Latin or †German or †Greek	6
7. Government 10	6
8. Philosophy or psychology	3
9. *Social science	6
10. Electives, twelve semester hours of which must be advanced,	21
11. Physical training—no credit	0

 120

 †See Number 6 under Course Requirements.

*Economics, government, history, philosophy, psychology, sociology, or

ECONOMICS MAJOR

Minor—See Group B under "Concentrations"

Requirements

	Hours
1. Economics 312, 313, 329, and fifteen additional semester hours of economics, at least nine hours of which must be advanced	24
2. Minor subject, eighteen semester hours, six of which must be advanced	18
3. English 1 and 12	12
4. †Foreign Language—the completion of a course numbered 12	12
5. Science (laboratory)—six semester hours in each of any two of the following sciences: botany, biology, chemistry, physics, geology, zoology	12
6. Mathematics or numbered courses of †Latin or †German or †Greek	6
7. Government 10	6
8. Philosophy or psychology	3
9. *Social science (See No. 1)	0
10. Electives, twelve semester hours of which must be advanced	27
11. Physical training—no credit	0

120

†See Number 6 under Course Requirements.

*Economics, government, history, philosophy, psychology, sociology, or combination.

****EDUCATION MAJOR**

Minors in any two teaching subjects—See Group B under
"Concentrations"

Requirements

	Hours
1. Education—twenty-four semester hours, including Education 27 or 28 and six additional semester hours of advanced courses	24
2a. First teaching subject—eighteen semester hours of numbered courses, six of which must be advanced	18
2b. Second teaching subject—eighteen semester hours of numbered courses, six of which must be advanced	18
3. English 1 and 12	12
4. †Foreign language—the completion of a course numbered 12	12
5. Science (laboratory)—six semester hours in each of any two of the following sciences: botany, biology, chemistry, physics, geology, zoology	12
6. Mathematics or numbered courses of †Latin or †German or †Greek	6
7. Government 10	6
8. Philosophy or psychology	3
9. *Social Science	6
10. **Elective, advanced courses	3
11. Physical training—no credit	0
	120

†See Number 6 under Course Requirements.

*Economics, government, history, philosophy, psychology, sociology, or combination.

**Students electing the education major are advised to plan their course programs carefully so as to meet the general requirement of a total of thirty semester hours of advanced courses.

ENGLISH MAJOR

Minor—See Group B under "Concentrations"

Requirements

	Hours
1. English 1, 12, and twelve additional semester hours of advanced courses	24
2. Minor—eighteen semester hours, six of which must be advanced	18
3. English 1 and 12 (See No. 1)	0
4. †Foreign language—the completion of a course numbered 12..	12
5. Science (laboratory)—six semester hours in each of any two of the following sciences: botany, biology, chemistry, physics, geology, zoology	12
6. Mathematics or numbered courses of †Latin or †German or †Greek ..	6
7. Government 10	6
8. Philosophy or psychology	3
9. *Social Science	12
10. Electives, twelve semester hours of which must be advanced..	27
11. Physical training—no credit	0
	120

†See Number 6 under Course Requirements.

*Economics, government, history, philosophy, psychology, sociology, or combination.

HISTORY MAJOR

Minor—See Group B under "Concentrations"

Requirements

	Hours:
1. History—twenty-four semester hours, twelve of which must be advanced	24
2. Minor—eighteen semester hours, six of which must be advanced	18
3. English 1 and 12	12
4. †Foreign language—the completion of a course numbered 12..	12
5. Science (laboratory)—six semester hours in each of any two of the following sciences: botany, biology, chemistry, physics, geology, zoology	12
6. Mathematics or numbered courses of †Latin or †German or †Greek	6
7. Government 10	6
8. Philosophy or psychology	3
9. *Social science (See No. 1)	0
10. Electives, twelve semester hours of which must be advanced..	27
11. Physical training—no credit	0
	120

†See Number 6 under Course Requirements.

*Economics, government, history, philosophy, psychology, sociology, or combination.

MODERN LANGUAGE MAJOR

Minor—See Group B under "Concentrations"

Requirements

	Hours
1. †Major language—courses 1 and 12 and twelve additional semester hours of advanced courses.....	24
2. Minor—eighteen semester hours, six of which must be advanced ..	18
3. English 1 and 12	12
4. †A second language—the completion of a course numbered 12	12
5. Science (laboratory)—six semester hours in each of any two of the following sciences: botany, biology, chemistry, physics, geology, zoology	12
6. Mathematics or numbered courses of †Latin or †German or †Greek ..	6
7. Government 10	6
8. Philosophy or Psychology	3
9. *Social science	6
10. Elective, twelve semester hours of which must be advanced..	21
11. Physical training—no credit	0
	120

†See Number 6 under Course Requirements.

*Economics, government, history, philosophy, psychology, sociology, or combination.

MUSIC MAJORS**Public School Music****Minor—Applied Music****Requirements**

	Hours
1. Music 1, 10, 30, and Public School Music **51 or †52.....	24
2a. Applied Music (in addition to Freshman non credit course) eighteen semester hours, six of which must be advanced....	18
2b. Education 301, 305. **314 or †316, †317 or **318	12
3. English 1 and 12	12
4. †Foreign language—the completion of a course numbered 12 ..	12
5. Science (laboratory)—six semester hours in each of any two of the following sciences: botany, biology, chemistry, physics, geology, zoology	12
6. Mathematics or numbered courses of †Latin or †German or †Greek	6
7. Government 10	6
8. Philosophy or Psychology	3
9. *Social Science	6
10. Electives, advanced courses.....	9
11. Physical training—no credit	0
	120

†See Number 6 under Course Requirements.

*Economics, government, history, philosophy, psychology, sociology, or combination.

**For elementary teacher's certificate.

†For high school teacher's certificate.

Music Theory

Minor—Applied Music

Requirements

	Hours
1. Music 1, 10, 30, and 20 or 40 or 50.....	24
2. Applied Music (in addition to Freshman non-credit course)— eighteen semester hours, six of which must be advanced....	18
3. English 1 and 12	12
4. †Foreign language—the completion of a course numbered 12..	12
5. Science (laboratory)—six semester hours in each of any two of the following sciences: botany, biology, chemistry, physics, geology, zoology	12
6. Mathematics or numbered courses of †Latin or †German or †Greek ..	6
7. Government 10	6
8. Philosophy or Psychology	3
9. *Social Science	6
10. Electives, twelve semester hours of which must be advanced..	21
11. Physical training—no credit	0

120

†See Number 6 under Course Requirements.

*Economics, government, history, philosophy, psychology, sociology, or combination.

†SCIENCE MAJOR

**Minor—See Group A under "Concentrations"

Requirements

	Hours
1. Major science—twenty-four semester hours, twelve of which must be advanced	24
2. **A second science—eighteen semester hours, six of which must be advanced	18
3. English 1 and 12	12
4. Foreign language—the completion of a course numbered 12....	12
5. Science—(See No. 1 and No. 2)	0
6. §Mathematics ..	6
7. Government 10	6
8. Philosophy or psychology	3
9. *Social science ..	6
10. Elective, twelve semester hours of which must be advanced....	33
11. Physical training—no credit.....	0
	120

†When registering for this major, the student should be careful to secure proper advice concerning the order and choice of courses.

**A different minor may be chosen only with the consent of the head of the major department and the approval of the dean.

§Mathematics 803 is required for majors in chemistry, mathematics and physics; and for minors in mathematics and physics.

*Economics, government, history, sociology, philosophy, psychology, or combination.

PRELIMINARY WORK FOR OTHER DEGREES

Preliminary work is offered for law and medicine.

Selection of Courses

Certain rules govern the order and choice of work, particularly for the freshman and sophomore years. These rules vary somewhat with the character of the degree for which the student proposes to become a candidate. The student should advise with his Dean concerning the selection of courses.

Work Preparatory to Law

Minimum Requirements for Admission to The University of Texas
School of Law

Freshman Year: English 1, six semester hours in mathematics, History 4, a natural science, an elective.

Sophomore Year: English 12, Government 10, Economics 312 and 313, History 315 and 316, and any other academic course which requires sophomore standing or completion of a freshman course as a prerequisite.

Work Preparatory to Medicine

Leading to Degree of Bachelor of Arts

Completion of the following courses leads to the degree of Bachelor of Arts at the end of the first year of work in the School of Medicine at Galveston.

Thus both the B.A. and the M.D. degrees may be taken in seven years.

Freshman Year: English 1; French 1 or German 1; six semester hours in mathematics; Chemistry 301; Zoology 1.

Sophomore Year: English 12; French 12 or German 12; Chemistry 311 and 413; Physics 1; Zoology 14.

Junior Year: Chemistry 321 and 323; Government 10; three semester hours in economics; Psychology 310; Biology 316 and 317, or Zoology 320 and 321; elective, enough to make a total of thirty semester hours for the year.

WORK PRELIMINARY TO OTHER ENGINEERING DEGREES

Uniform Freshman Year.—First semester: Mathematics 803a, Chemistry 801a, Drawing 301, English 1a, Physics 1a. Second semester: Mathematics 803b, Chemistry 801b, Drawing 302, English 1b, Physics 1b. Additional courses are offered, such as to enable students to complete in general work through the sophomore year in civil, chemical, electrical, and mechanical engineering.

STATE TEACHERS' CERTIFICATES

In view of the fact that accredited public school systems require degrees of beginning teachers, students are not encouraged to apply for certificates until after graduation.

The requirements for the six-year elementary teacher's certificate are sixty hours of credit work including English 1, Government 10, and Education 301, 305, 314, and 318; for the four-year high school certificate, sixty semester hours including English 1, Government 10, and Education 301, 305, 316, and 317.

Students planning to teach in the elementary grades are advised to take Education 28 also.

A student who holds an A. B. degree from the College is entitled to a permanent high-school certificate, provided he has credit for Education 301, 305, 316, 317, 27, and six other semester hours of advanced courses in education.

Information concerning other teachers' certificates may be obtained from the Registrar.

COURSES OF INSTRUCTION

For an explanation regarding numbers and letters used in titles of courses and their meanings with respect to prerequisites of residence and credit, credit hours earnable, amount of work required in and out of class, semesters in which offered, etc., please see "Explanation of Courses."

BIOLOGICAL SCIENCES

Professor Berkman; Assistant Professor Jenness
Biology

307s. Anatomy and Physiology.—Anatomical study of a mammal, kinestology-action of muscles and joints, followed by a study in physiology and hygiene of man. Prerequisite: Botany 301, or Zoology 301. This course does not satisfy premedical requirements nor the prerequisites for courses in zoology. Two lectures and three laboratory hours, or the equivalent. Laboratory fee, \$2. Credit value: Three semester hours.

316f. Heredity.—Elementary presentation of fundamental principles of heredity in their application to animals, plants, and mankind. This course may not be used to satisfy the science requirement for the A. B. degree. Prerequisite: Sophomore standing or six semester hours in a laboratory science. Credit value: Three semester hours.

317s. Evolution.—Topics considered in this course are: The evidence of evolution; methods of evolution; the course and trends evolution has taken, and the influence of the doctrine of evolution on man's life. This course may not be used to satisfy the science requirement for the A. B. degree. Prerequisite: Sophomore standing, or six semester hours in a laboratory science. Credit value: Three semester hours.

330s. Technique in Histology and Cytology.—A study in the procedure of fixing, imbedding, sectioning, staining, and mounting cells and tissues of plants and animals for critical analysis. Prerequisite: Bacteriology 29, or 12 semester hours in zoology, or botany. Two lectures and three laboratory hours, or the equivalent. Laboratory fee, \$2. Credit value: Three semester hours.

29. General Bacteriology.—A study of distribution, structure, reproduction, and classification of bacteria, preparation of culture media, principles of sterilization, observation and isolation of pathogenic organisms, immunology, and bacterial investigation of water and milk. Prerequisite: Twelve semester hours in any one of the natural sciences, or a combination of twelve semester hours in natural sciences and junior standing. Two lectures and three laboratory hours, or the equivalent. Laboratory fee, \$4. Credit value: Six semester hours.

Botany

301f. General Botany.—Study of a typical plant and the structure and physiology of the plant cell, followed by a survey of the algae and the fungi coupled with references to their position in the environment of man. Two lectures and three laboratory hours. Laboratory fee, \$2. Credit value: Three semester hours.

302s. General Botany.—A survey of the mosses, ferns, and seed plants, including brief discussions on their importance in the environment of man. The last few lectures include a survey of the Mendelian Law. Prerequisite: Botany 301. Two lectures and three laboratory hours. Laboratory fee, \$2. Credit value: Three semester hours.

Zoology

301f. General Zoology.—Designed to give an introduction to theoretical biology, followed by a survey of the invertebrates, including references to their importance in the environment of man. Two lectures and four laboratory hours. Laboratory fee, \$2. Credit value: Three semester hours.

302s. General Vertebrate Zoology.—A survey of the structure of vertebrates, introduction to animal histology and genetics. Prerequisite: Zoology 301. Two lecture hours and four laboratory hours. Laboratory fee, \$2. Credit value: Three semester hours.

14. Vertebrate Zoology.—Laboratory study of the structure of dog-fish, necturus, turtle, bird, mammal, and perhaps other typical vertebrates. Prerequisite: Zoology 1. Two lectures and four laboratory hours. Laboratory fee, \$4. Credit value: Six semester hours.

320s. Animal Cytology and Histology.—The study of cell phenomena, such as structure of the cell, maturation, fertilization, sex determination, cell division. Prerequisite: Zoology 14; for juniors and seniors, Zoology 1 completed with a grade of at least C, and Zoology 14 in parallel. Zoology 14 must be completed before the student can get credit for Zoology 320. Two lectures and four laboratory hours. Laboratory fee, \$2. Credit value: Three semester hours.

321f. Vertebrate Embryology.—A study of the development of typical vertebrates, with emphasis on the development of the chick and a mammal. Prerequisite: Zoology 1 and 14; for juniors and seniors, Zoology 1 completed with a grade of at least C, and Zoology 14 in parallel. Zoology 14 must be completed before credit can be given the student for Zoology 321. Two lectures and four laboratory hours. Laboratory fee, \$2. Credit value: Three semester hours.

CHEMISTRY

Professor Seamon; Associate Professor Lake; Instructor Ball

1. General Chemistry.—Fundamental principles of chemistry. Designed for those students whose formal education in chemistry terminates with one year's work in the subject or whose degree plans stipulate six hours of general chemistry as the total requirement in that science. Two lectures, one demonstration hour, and two laboratory hours per week. Laboratory fee, \$4. Credit value: Six semester hours.

801. General Chemistry.—The laws and theories of chemistry; the chemical elements and their most important compounds with reference to their production and use. For students who need a foundation for work in advanced chemistry and related sciences. Two lectures, one recitation, and three laboratory hours. Laboratory fee, \$4. Credit value: Eight semester hours.

305fs. A review of the fundamental principles of elementary chemistry and their application. Required of all students who, after trial and a qualifying examination, are found insufficiently prepared to carry Chemistry 801a and who plan to register for that course the next succeeding semester. May not be used as a pre-requisite for any chemistry course other than 801a. Two lecture hours, one demonstration hour, and two laboratory hours per week. Credit value: Three semester hours. May not be counted in addition to Chemistry 801a or 1a.

311f. Qualitative Analysis.—Intended to emphasize the principles involved in chemical analysis, to broaden the student's knowledge of inorganic chemistry, to develop deductive reasoning power, and to give practice in manipulation. The student is required to analyze unknown solids and solutions. Prerequisites: Chemistry 801 or Chemistry 1 with a grade of C. One lecture and six laboratory hours. Laboratory fee, \$2. Credit value: Three semester hours.

413s. Quantitative Analysis.—The quantitative analysis of chemical salts, minerals, ores, rocks, and industrial products. Prerequisite: Chemistry 311. The last three semester hours of this course count as advanced. One lecture and eight laboratory hours. Laboratory fee, \$4. Credit value: Four semester hours.

21 and 821. Organic Chemistry.—A study of the fundamental types of carbon compounds. Prerequisite: Chemistry 801 with a grade of C. Three lectures and three laboratory hours per week for 821. Students registering for 21 will receive the equivalent of two lectures and three laboratory hours. Laboratory fee, \$4. Credit value for 21: Six semester hours; for 821: Eight semester hours.

323f. Quantitative Analysis.—A continuation of Chemistry 413. Prerequisite: Chemistry 413. One lecture and six laboratory hours. Laboratory fee, \$2. Credit value: Three semester hours.

324s. Assaying.—The determination of gold, silver, and lead by fire methods in minerals, ores, and products of mills and smelters. Prerequisite: Chemistry 323. One lecture and six laboratory hours. Laboratory fee, \$2. Credit value: Three semester hours.

325f. Physical Chemistry.—Properties of substances in the gaseous, liquid, and solid state; solutions; thermochemistry. Prerequisite: Chemistry 413, Mathematics 13, and Physics 1 or 812. Two lectures and three laboratory hours per week. Laboratory fee, \$2. Credit value: Three semester hours.

326s. Physical Chemistry.—Homogeneous and heterogeneous equilibria; kinetics of reaction, electrochemistry, and chemical thermodynamics. Prerequisite: Chemistry 325. Two lectures and three laboratory hours per week. Laboratory fee, \$2. Credit value: Three semester hours.

ECONOMICS AND BUSINESS ADMINISTRATION

Professor Morris; Assistant Professor Smith

In majoring or minoring in the department of economics and business administration, the student may elect any of four channels of preparation; namely, (a) general economics, (b) general business training, (c) accounting, or (d) secretarial science. Because of the relationship which one course bears to another in the fields of economics and business administration, there is necessarily some overlapping in the courses suggested for these four channels of concentration; but experience has taught that particular courses are fundamental for the concentrations. For example, the secretarial science student would benefit most from typewriting, shorthand, office practice, etc. Students majoring or minoring (or both) in this department, then, would do well to consider carefully the following suggestions of courses. (a) General Economics: among others, Economics 321, 322, 332, 325, 357, and 358; and Business Administration 311-314. (b) General Business Training: Among others, Business Administration 311, 314, 10, 420, 357, 454, and 23; and Economics 312-313. (c) Accounting: among others, Business Administration 311, 314, 326, 327K, 329, 330, 420, and 23; and Economics 312, 313, and 322. (d) Secretarial Science: among others, Business Administration 10, 21, 420, 334, 311, 314, and 23; and Economics 312, 313 and 322.

Note to majors and minors in this department.—In order that the courses may be coordinated and planned in advance, every student intending to major or minor in Economics or Business Administration is urged to counsel with the head of this department before registration in the sophomore year. Advice at this stage may prevent subsequent difficulties in the student's program.

Economics

312fs. Principles of Economics.—A general survey of the principles and facts involved in production and exchange of goods in a capitalistic society. Factors of production; the American monetary system; banking organization; transportation; markets; elucidation of value and price. Prerequisite: Sophomore standing. Credit value: Three semester hours.

313s. Principles of Economics.—A continuation of Economics 312. The principles of distribution of wealth in a capitalistic society. Theories underlying determination of rent, wages, profits, and interest. Public utilities; protective tariffs; business cycles; public revenue; public credit. Prerequisite: Economics 312. Credit value: Three semester hours.

321f. Public Finance and Taxation.—A general treatment of financial administration by agencies of the government of the United States. Principles of taxation; the property tax; income taxes; the sales tax and other types of taxation. Analysis of governmental expenditures; public credit. Prerequisite: Economics 313. Credit value: Three semester hours. (Omitted in 1939-1940; to be offered in 1940-1941.)

322f. Money and Banking.—Studies of the principles of money and banking, the existing money and banking systems of the United States and selected foreign countries, and important theories underlying credit. History of the precious metals; bimetalism; banking development; relation of money and credit to prices; foreign exchange. Prerequisite: Economics 313. Credit value: Three semester hours. (Given in alternate years; to be omitted in 1940-1941. May not be counted for credit in addition to Business Administration 454.)

325s. Business Cycles.—A study of value and its relation to the oscillations of business. Isolation and interpretation of facts relating to the trade cycle. Analysis and evaluation of American and foreign theories of depressions. Emphasis upon current problems and proposed and attempted alleviations. Prerequisite: Economics 313. Credit value: Three semester hours. (Omitted in 1939-1940; to be offered in 1940-1941.)

328f. Economic History of the South.—A chronological study of the agricultural and industrial development of the southern states. Relationship of the South's economic institutions; banking; public finance; natural resources; geographic advantages. Colonial period through the modern era. Prerequisite: Economics 313. Credit value: Three semester hours. (Given in Summer Session in 1939.)

329f. Economic Statistics.—Training in the quantitative methods of dealing with mass data. The use of graphic and tabular methods of presentation of facts. Measures of central tendency; index numbers; measures of deviation and skewness; time series; correlation. Prerequisite: Economics 313 and six semester hours of mathematics. Three hours and three laboratory hours per week. Laboratory fee, \$2. Credit value: Three semester hours. (May not be counted for credit in addition to Business Administration 432.)

330s. Economic and Financial History of the United States.—The development of agriculture, industry, and commerce of this country from colonial times to the present. Banking; trade; public finance; government regulation; and general economic development. Problems raised by the growth of economic complexities. Prerequisite: Economics 313. Credit value: Three semester hours. (Given in alternate years; to be omitted in 1940-1941.)

332f. Corporation Finance.—The promotion of corporations in the process of formation; capital sources; capital structures, internal financial management, receiverships; reorganizations; relation of corporation finance to banking; social consequences of over-promotion. Prerequisite: Economics 313. Credit value: Three semester hours. (Given in alternate years; to be omitted in 1940-1941.)

333s. Advanced Statistics.—A review of the measures of central tendency with short-cuts; dispersion measurement technique; the theory of the "bell-shaped" curve and the expansion of the binomial; the theory of standard deviation interpretation; simple, multiple, linear, and curvilinear correlation. Prerequisite: Economics 329. Credit value: Three semester hours. May not be counted for credit in addition to Business Administration 333s. (Given in alternate years; to be offered in 1940-1941.)

341s. Advanced Banking Theory and Practice.—A study of banking in its relation to the economic world; promotion and incorporation; banking organization and powers; the directors; stockholders; clearing and collection system; credit analysis; banking departments; Federal Reserve system; open market operations; specialized finance houses. Prerequisite: Economics 313. Credit value: Three semester hours. (Given in alternate years; to be omitted in 1940-1941.) May not be counted for credit in addition to Business Administration 341.

343f. Cooperative Economic Systems.—A consideration of the economic foundations of the capitalistic and other systems. An objective study of the economic construction of Fascism, Nazism, Socialism, Communism. Prerequisite: Economics 313. Credit value: Three semester hours. (Given in alternate years; to be offered in 1940-1941.)

349f. Labor Problems.—Problems of the State and Federal Government in relation to labor in selected fields: child labor; minimum wages; hours of labor; social insurance; retirement programs. The American Federation of Labor; the C.I.O.; other organizations; strikes; lockouts; current issues. The Wagner Labor Relations Act. Prerequisite: Economics 313. Credit value: Three semester hours. (Given in alternate years; to be omitted in 1940-1941.)

358s. International Economic Relations.—Mercantilism as a background; English commercial development; American colonial development; tariff history; problems of free trade; international movements of money; international commercial entanglements; inter-governmental debt payments; reparations; American technique in dealing with foreign countries. Pre-

requisite: Economics 313 and three semester hours of advanced economics. Credit value: Three semester hours. (Given in alternate years; to be offered in 1940-1941.)

Business Administration

01. Elementary Typewriting.—A non-credit course, equivalent to the typewriting requirement in Business Administration 10, given for the benefit of those students who do not desire shorthand. Laboratory fee, \$4. (To be omitted after 1939-1940.)

10. Shorthand and Typewriting.—Mastery of the elementary principles of Gregg shorthand; transcription; and typewriting. Six semester hours credit is allowed when the standard of speed and accuracy is met in both shorthand and typewriting. No credit otherwise. Prerequisite: Sophomore standing. Three shorthand lecture periods and six hours of typewriting practice per week. Laboratory fee, \$4.

311f. Theory and Principles of Accounting.—Principles of double entry bookkeeping and theories of general financial accounting. The analysis and recording of business transactions; adjusting and closing entries; financial statements; sole proprietorship accounting. Use of the worksheet. Prerequisite: Sophomore standing. Credit value: Three semester hours.

314s. The Practice of Accounting.—A continuation of Business Administration 311. Partnership accounting; corporation accounting; reserves and reserve funds; manufacturing accounts; asset valuation. Prerequisite: Business Administration 311. Two hours of lecture and four hours of laboratory per week. Laboratory fee, \$2. Credit value: Three semester hours.

420s. Business Correspondence.—A course in the writing of clear, concise and forceful business letters. Practical business situations are given as bases of letter assignments. Practice is given in the writing of sales letters, credit letters; adjustments; claim; order; rejection; collection; and application letters. Part of the course is given over to the theory and practice of business report writing. Prerequisite: English 12, Business Administration 314, and Typewriting 01 or its equivalent. Credit value: Four semester hours. Three lectures and two laboratory hours per week.

21. Advanced Stenography.—Training in advanced secretarial practice. Development of speed and accuracy in shorthand and typewriting. Character study and practice in dictation of medical, legal and engineering phraseology. Technique in letter layouts. Practice in receiving messages and transcribing from the Dictaphone. Three lectures and six laboratory hours per week. Prerequisite: Business Administration 10 and 314. Credit value: Six semester hours. (Given in alternate years; to be omitted in 1940-1941.)

23. Business Law.—Textbook and case method; cases on the law of contracts, agency, bankruptcy, bailments, sales, mortgages, negotiable instruments. Partnership and corporation cases. Prerequisite: Business Administration 314 or Economics 313. Credit value: Six semester hours. (Given in alternate years; to be omitted in 1940-41.)

326f. Intermediate Accounting, First Course.—Classification and codification of accounts, forms, and contents of financial statements; theory involved in corporation accounting; actuarial science; accounting for consignments and installment sales; evaluation of investments; comparative statements; analysis of working capital; statement of application of funds. Prerequisite: Business Administration 314. Credit value: Three semester hours. (Given in alternate years; to be omitted in 1940-1941.)

327Ks. Intermediate Accounting, Second Course.—Theory involved in partnership accounting; venture accounts; accounting for receivership; parent and subsidiary accounting; consolidated balance sheets; foreign exchange accounting; estates and trusts; budgets; public accounts; bank accounting; and stock brokerage accounting. Prerequisite: Business Administration 326. Credit value: Three semester hours. (Given in alternate years; to be omitted in 1940-1941.)

329f. Cost Accounting.—Accounting for materials, labor and manufacturing expense under specific cost system and under the continuous process cost system. Standard costs; accounting for variances; study of production orders and standing orders. Prerequisite: Business Administration 314. Credit value: Three semester hours. (To be offered in 1940-1941.)

330s. Auditing.—Auditing procedure, reports, and working papers used in financial investigations; balance sheet and detailed audits. Verification of assets, liabilities, and nominal accounts. Prerequisite: Business Administration 314. Credit value: Three semester hours. (To be offered in 1940-1941.)

432f. Business Statistics.—Training in the quantitative methods of analysis used in dealing with mass data. The use of graphics and tabular presentations; organizing and describing data; the frequency distribution; measures of central tendency, dispersion and skewness; time series; and correlation. Prerequisite: Business Administration 314. Credit value: Four semester hours. Three lectures and five laboratory hours per week. Laboratory fee, \$4. (May not be counted for credit in addition to Economics 329.)

333s. Advanced Statistics.—A review of the measures of central tendency with short-cuts; dispersion measurement technique; the theory of the "bell-shaped" curve and the expansion of the binomial; the theory of standard deviation interpretation; simple, multiple, linear, and curvilinear correlation. Prerequisite: Business Administration 432. Credit value: Three semester hours. May not be counted in addition to Economics 333s. (Given in alternate years; to be offered in 1940-1941.)

334f. Office Organization and Practice.—The location, equipment, organization, and general practice in office routine. Practice in the use of the mimeograph machine, dictaphone, bookkeeping machines, and other types of modern office equipment. Demonstrational work in the use of and operation of a telephone switchboard. Designed especially for those students in-

tending to go into office work. Prerequisite: Business Administration 10 and 314. Credit value: Three semester hours. (Omitted in 1939-1940; to be offered in 1940-1941.)

337s. Marketing.—The place of marketing in our domestic business system. Functions of marketing; the place of the middle-man in the system; brief consideration of the wholesaler and the retailer. (Formerly Business Administration 437.) Prerequisite: Business Administration 314. Credit value: Three semester hours. (Given in alternate years; to be offered in 1940-1941.)

340. Business Advertising.—A study of the principles underlying advertising; the economic value of advertising; recent trends; correlating advertising budgets with movements in the price cycle. Study of the psychology of individual advertisements; consideration of the various media and the value of each. Prerequisite: Junior standing. Credit value: Three semester hours. (Given in Summer Session of 1939.)

341s. Advanced Banking Theory and Practice.—A study of banking in its relation to the economic world; promotion and incorporation; banking organization and powers; the directors; stockholders; clearing and collection system; credit analysis; banking department; Federal Reserve system; open market operation; specialized finance houses. Prerequisite: Business Administration 314. Credit value: Three semester hours. (Given in alternate years; to be omitted in 1940-1941.) May not be counted for credit in addition to Economics 341.

348s. Latin American Resources and Trade.—A study of the economic resources of the major Latin American nations; relations of the national costs of production to foreign trade. Trade relation of the United States with Mexico and other important Latin American countries. Technique of financing trade between this country and Latin America. Prerequisite: Business Administration 314. Credit value: Three semester hours. (Given in alternate years; to be offered in 1940-1941.)

454f. Short-Term Finance.—Operations of commercial banks, trust companies, and other credit-granting agencies; credit theory in its elementary form; credit analysis; recent monetary developments in the United States; foreign exchange practice; place of the Federal Reserve Banks in the financial structure. Prerequisite: Business Administration 314 and Economics 313. Credit value: Four semester hours. (Given in alternate years; to be omitted in 1940-1941.) May not be counted in addition to Economics 322.

357f. Investments.—Investment principles, investment banking, security flotation, and investment analysis; descriptions of various types of securities, including industrials, rails, utilities, governments, and others; technique of stock-market trading; investment mathematics. Prerequisite: Business Administration 314. Credit value: Three semester hours. (Omitted in 1939-1940; to be offered in 1940-1941.)

358f. Life Insurance.—A study of the principles underlying group risk absorption; rate making; "loading"; types of risk carriers; term insurance; the endowment; annuities; disability and accidental death benefits. Organization and administration of insurance carriers. Government regulation and taxation of insurance companies. Prerequisite: Business Administration 314. Credit value: Three semester hours. (Given in alternate years; to be offer in 1940-1941.)

DESIGN AND INTERIOR DECORATING

Instructor Wise

301fs. Elementary Design.—The course will include a study of the fundamental principles of design, composition, creative design, history of design, and the Old Masters. Three lectures and three laboratory hours. Laboratory fee, \$2. Credit value: Three semester hours.

302s. Elementary Design.—Continued study of fundamental principles of design with emphasis upon composition and application to decorative forms in industrial design. Consideration will be given to the technique of handling media, pencil, charcoal, water color, etc., in creative design. Continued study of old masters from standpoint of design. Three lectures and three laboratory hours. Laboratory fee, \$2. Prerequisite: Design 301. Credit value: Three semester hours.

310f. Interior Decoration.—The course will include consideration of the fundamental principles of room decoration; the use of fabrics, furniture, and accessories; and a study of the relation of interior design to architecture. Prerequisite: Sophomore standing or consent of instructor. Three lectures and three laboratory hours. Laboratory fee, \$2; Laboratory hours to be arranged by instructor. Credit value: Three semester hours.

311s. Interior Decorating.—Continuation of study of period design from Renaissance through English and French periods to Colonial. Study of modern design. Particular attention to fabrics, their history and weaves. Modern weaves and their proper use. Adaptation of color theory studied in Design 301. Colors in modern fabrics and decorative trends. Wool and its use throughout different periods. Relation of interior design to architecture. Proper use of accessories. Three lectures and three laboratory hours. Laboratory fee, \$2. Prerequisite: Design 310. Credit value: Three semester hours.

312f. Advanced Design.—An advanced course in design with emphasis on its adaptation to different fields of art according to the tendencies of the individual student. Creative ability of student thus fostered as design in industry, advertising, painting, etc., are explored in this course. Emphasis placed on form and expression. Fundamentals taught. Laboratory fee, \$2. Three lectures and three laboratory hours. Prerequisite: Design 301 and 302. Credit value: Three semester hours.

313a. Advanced Design.—Design as functional in art. A working course in creative endeavor in various phases of art, such as painting, decorative design, textile design, advertising and industrial design, etc. Adaptation of principles learned in former design courses. Three lectures and three laboratory hours. Laboratory fee, \$2. Prerequisite: Design 301 and 302. Credit value: Three semester hours.

EDUCATION AND PHYSICAL EDUCATION

EDUCATION

Professor Puckett; Associate Professor Agee; Assistant Professor Hoard;
Instructor Reynolds.

This program is intended to provide opportunity for the prospective teacher to obtain (a) orientation in the general field of education, (b) an over-view of the fundamental principles and philosophy of the elementary or secondary schools, and (c) specific training in the technique of instruction in the field or subject which is selected. Students who are planning to teach in the secondary schools are advised to take Education 301, 305, 316, 317, 27 and three semester hours of special methods courses in each of two high-school fields. Students who are planning to teach in the elementary schools are advised to take Education 301, 305, 314, 318, 28, and three semester hours of special methods courses in each of two elementary-school fields.

General

301fs. Introduction to Educational Psychology.—A study of some of the topics in educational psychology which relate most directly to an understanding of the learning process and the conduct of children. Credit value: Three semester hours.

305fs. An Introduction to Education.—An introductory course in the field of education. Surveys the rise, chief concepts, and outstanding problems of modern education. An orientation course in education for beginning students. Credit value: Three semester hours.

320f. Adult Education.—A survey course in adult education; importance and meaning; psychology of adult learning; aims, functions, and methods; use of various agencies. Prerequisite: Twelve semester hours of Education. Credit value: Three semester hours. (Given in summer, 1938).

335f. Directing Study.—Examination of the literature on directing study. Formulation of units of work and discussion of methods for stimulating and guiding pupils at work. Prerequisite: Twelve semester hours in education. Credit value: Three semester hours.

336Ks. Curriculum Reorganization: Its Theory and Practice.—Social and psychological bases of curriculum reorganization; general types of curriculum programs; changes in subject matter courses; unit types of organization of learning experiences; trends in administering curriculum programs with particular attention to Texas. Prerequisite: Twelve semester

hours of education. Credit value: Three semester hours. (Given in Summer Session of 1939.)

340s. The Administration and Supervision of Extra-Curricular Activities in the Modern School.—The course deals with the purposes and principles of extra-curricular activities in the school, with special emphasis on types of activities, organization and administration of the program, and principles of supervision. Prerequisite: Twelve semester hours of education. Credit value: Three semester hours. (Given in Summer Session of 1939.)

346f. Methods and Materials in Unit Teaching.—A survey of types of unit teaching with emphasis upon the integrative unit and its application in the elementary school; characteristics of suitable units for each grade level; correlation in a unified program of activities and experiences. Prerequisite: Twelve semester hours in education. Credit value: Three semester hours. (Given in Summer Session of 1939.)

359s. Philosophy of Education.—Educational principles governing aims, curricula, methods, and organization; relation of individual to society, the social frontier, moral and religious education, antinomic principles of education; functions of family, church, school, and state in the education of children. Prerequisite: Twelve semester hours in education. Credit value: Three semester hours.

359Tf. Foundations of Modern Educational Theory and Practice.—Social groupings and their effect upon education; the place of the individual as an experiencing organism; social forces and their influence upon education; conflicting theories of modern educational philosophy and practice; the bases of modern educational theory of the progressive type. Prerequisite: Twelve semester hours of education. Credit value: Three semester hours. (Given in Summer Session of 1939.)

Elementary

314f. Child Psychology.—A study of the changes which take place in the life of the child as related to the processes of elementary education. Prerequisite: Education 301 and 305. Credit value: Three semester hours.

318s.—Introduction to Elementary Education.—Consideration will be given to the educational principles underlying present trends and practices in the elementary school. Special attention will be given to guiding learning through activities of children. Prerequisite: Education 301 and 305. Credit value: Three semester hours.

324f. Language Arts in the Primary Grades.—A study of materials and methods of teaching language, spelling, and handwriting from the standpoint of social utility in grades one, two, and three. Prerequisite: Education 314 and 318, or their equivalent. Credit value: Three semester hours. (Given in 1939-1940; to be omitted in 1940-1941.)

324Ts. Reading in the Intermediate Grades.—A study of the materials and methods of teaching reading in grades five through eight with special attention to the use of drill materials and new mechanical aids. Prereq-

quisite: Education 314 and 318 or their equivalent. Credit value: Three semester hours. (Given in alternate years; to be offered in 1940-1941.)

28. Student-Teaching in the Elementary and Primary Grades.—Similar to Education 27, but for the elementary and primary grades. Ordinarily, one period daily for six days will be required, but students are expected to have two consecutive hours, between 9 and 3 o'clock throughout the week in order to facilitate making the teaching assignments. Prerequisite: Education 314 and 318, or their equivalent. Credit value: Six semester hours.

348f. Teaching Arithmetic and Science in the Primary Grades.—First half: Curriculum content in arithmetic with modern methods of teaching the subject in the first three grades. Second half: Building a background for teaching science in the primary grades, looking forward toward its inclusion in the curriculum. Prerequisite: Education 314 and 318, or their equivalent. Credit value: Three semester hours.

349f. Teaching of the Social Studies in the Elementary Grades.—The course will consider programs of instruction and procedures, as well as more detailed techniques in the teaching of specific units in the social studies. Consideration will be given to the function of social studies in an integrated program. Prerequisite: Education 314 and 318, or their equivalent. Credit value: Three semester hours. (Given in Long Session, 1938-1939.)

350s. Psychology of Elementary School Subjects.—A psychological analysis of the various subjects of the elementary school with emphasis upon the teaching implications involved. Prerequisite: Twelve semester hours in education. Credit value: Three semester hours. (Given in Summer Session 1938-1939.)

353s. Techniques of Teaching Reading in the Primary Grades.—A study will be made of the basic principles underlying desirable reading experiences which contribute to the success of the child in beginning reading and subsequent growth in ability to read with speed and comprehension. The place of drills, phonics, tests and the selection of materials will be emphasized. Prerequisite: Education 314 and 318, or their equivalent. Credit value: Three semester hours.

Secondary

316f. Psychology of Adolescence.—A study of the nature and development of the individual through the adolescent period as related to the processes of secondary education. Emphasis is placed on the nature of individual differences and especially on the development of proper habits and the correct integration of behavior patterns into a socially desirable personality. Prerequisite: Education 301 and 305. Credit value: Three semester hours.

317s. An Introduction to High-School Teaching.—Basic principles of high-school teaching and high-school management will be considered. Prerequisite: Education 301 and 305. Credit value: Three semester hours.

322f. Organization and Teaching of Mathematics and Science in the Secondary School.—Methods of teaching Mathematics and Science in the secondary school. Prerequisite: Six semester hours of Science; six semester hours of Mathematics; and Education 316 and 317, or their equivalent. Credit value: Three semester hours. (Given in 1939-1940; to be omitted in 1940-1941.)

323f. Teachers' Course in Modern Languages.—Methods of teaching modern languages in secondary schools. Prerequisite: Course 12 in a language; and Education 316 and 317, or their equivalent. Credit value: Three semester hours. (Given in 1938-1940; to be omitted in 1940-1941.)

326s. Teachers' Course in English.—Methods of teaching English in secondary schools. Prerequisite: English 12; and Education 316 and 317, or their equivalent. Credit value: Three semester hours. (Omitted in 1939-1940; to be offered in 1940-1941.)

27. Student-Teaching in High School.—A study of the principles of teaching, observation of class work, construction of lesson plans, and teaching under supervision. Ordinarily, one period daily for six days a week will be required, but students are expected to have two consecutive hours, between 9 and 3 o'clock throughout the week, in order to facilitate making the teaching assignments. Required of all candidates for a permanent high-school certificate. Prerequisite: Education 316 and 317; or their equivalent. Credit value: Six semester hours.

329f. Teachers' Course in the Social Studies.—Methods of teaching the social studies in secondary schools. Prerequisite: Twelve semester hours in History; and Education 316 and 317, or their equivalent. Credit value: Three semester hours. (Omitted in 1939-1940; to be offered in 1940-1941.)

PHYSICAL EDUCATION

Associate Professor Saxon; Instructors Kane, Phillips

310s. Theory and Practice of Playground Activities.—This course will consider content, progression, and instruction in plays and games. Training will be given in the organization and supervision of play activities for the elementary school. Practice in teaching and officiating is required. Open to both men and women. Laboratory fee, \$2. Prerequisite: Sophomore standing. Credit value: Three semester hours. (To be offered in 1939-1940.)

311f. Personal Hygiene.—This course presents personal and general hygiene as a means for the improvement of living. Open to both men and women. Prerequisite: Sophomore standing. Credit value: Three semester hours. (Given in Long session, 1938-1939; omitted in 1939-1940.)

313f. Technique of Minor Sports.—Theory and practice in methods and materials for the following: soccer, basket ball, playground ball, baseball, volley ball, track, and minor sports. Open to both men and women. Prerequisite: Sophomore standing. Laboratory fee, \$2. Credit value: Three semester hours. (Offered in 1939-1940.)

315f. Elementary Methods in Health Education.—A lecture and conference course dealing with materials and practical methods in health education. Open to both men and women. Prerequisite: Sophomore standing. Credit value: Three semester hours. (Given in 1938-1939; offered in 1939-1940.)

316f. Technique of Major Sports.—Theory and practice in methods and materials especially for the following: football, basketball. Open to men. Laboratory fee, \$2. Prerequisite: Sophomore standing. Credit value: Three semester hours. (Given in 1938-1939; offered in 1939-1940.)

318s. Appreciation of the Major Sports.—Rules and fundamental principles of football, basketball, and track with their relationship to the player and spectator. Prerequisite: Sophomore standing. Credit value: Three semester hours.

ENGINEERING AND DRAWING

Professor Kidd; Assistant Professor Decker; Instructor Steen
Engineering

410s. Elements of Electrical Engineering.—Direct current electric and magnetic circuits. Prerequisite: Physics 12a and registration in Mathematics 13b. Three recitations and one laboratory period a week. Laboratory fee, \$4. Credit value: Four semester hours.

312f. Mechanism.—A study of the laws which govern the motion of machine parts and the forces transmitted by the parts. Graphic analysis are made of various mechanisms, the motions produced, the velocities and accelerations of the parts; a study of links, cams, and gears. Prerequisite: Mathematics 803 and Drawing 302. Two lectures and three laboratory hours. Laboratory fee, \$2. Credit value: Three semester hours.

412f. Mechanism.—The same as Engineering 312, but with one additional laboratory period. Prerequisite: Mathematics 803, Drawing 302 and Physics 1. Two lectures and six laboratory hours. Laboratory fee, \$4. Credit value: Four semester hours.

313s. Plane Surveying.—The theory of plane surveying, including the care and adjustment of instruments; land surveying; traverses; leveling; determination of meridian; topographic surveying; mapping; the different systems of note-keeping; the usual computations used in plane surveying; and an elementary discussion of precision. Prerequisite: Mathematics 803 and Drawing 302. Three lectures. Credit value: Three semester hours.

414. Field Surveying.—Summer work; practical field course covering the topics outlined in Engineering 313. Accurate and rapid work will be insisted upon. Prerequisite: Engineering 313. Eight hours daily for four weeks: (Section No. 1 from June 17 to July 13, inclusive; Section No. 2 from July 15 to August 10, inclusive.) **STUDENTS MUST BEGIN WORK ON THE DAY THE FIELD WORK OPENS.** Deposit: \$8.00. Laboratory fee, \$4.00. Credit value: Four semester hours.

315f. Technical Mechanics.—Concurrent, parallel, and non-concurrent forces; friction, reactions; graphical and analytical determination of stresses in framed structures, centers of gravity, moments of inertia of areas. Prerequisite: Physics 1, and Mathematics 13a in advance or concurrently. Credit value: Three semester hours.

431s. Direct and Alternating Current.—Theory of direct and alternating current circuits and machinery; comparison of direct with alternating current for various uses in mining, metallurgical, and electro-chemical work. Prerequisite: Physics 812 and Mathematics 13. Three lectures and three laboratory hours. Laboratory fee, \$4. Credit value: Four semester hours.

832. Applied Mechanics and Structures.—Center of gravity, moment of inertia, radius of gyration; bending moments; shear, torsion; resilience; flexure of beams; theory of long columns; strength of materials. The funicular polygon; moment diagram; shear diagram; determination of stresses in various types of roof and bridge trusses; completed designs in steel and timber; comparisons as to weight and costs. Prerequisite: Drawing 302, Mathematics 13, and Physics 12 or 812. Three lectures and three laboratory hours. Credit value: Eight semester hours.

350f. Thermodynamics.—The fundamental equations of gases and their application to the steam engine; the heating values of different fuels; the construction and operation of steam boilers; boiler feed pumps; different types of steam engine as regards speed, valves, steam consumption, comparative cost, and relative economy; adjustments of valves, and determination of horsepower by the use of the indicator; steam turbines. Prerequisite: Mathematics 13 and Physics 12 or 812. Three lectures. Credit value: Three semester hours.

354s. Hydraulics.—Brief course of hydraulics, fluids in motion; flow of liquids through pipes, orifices, and over weirs, fluid friction and loss of head; Bernoulli's theorem; flow of water in canals and rivers; Kutter's formula; and graphical methods. Prerequisite: Physics 12 or 812 and Mathematics 13. Three lectures. Credit value: Three semester hours.

Drawing

301f. Engineering Drawing.—For all engineering students. Geometrical construction, freehand lettering, orthographic projection, pictorial methods, working drawings, tracing, and blueprinting. One one-hour discussion and eight hours of supervised drawing per week. Laboratory fee, \$2. Credit value: Three semester hours.

301s. Engineering Drawing.—Repetition of 301f.

302s. Descriptive Geometry.—Includes intersections and development of solids, curved lines, curved surfaces, and warped surfaces, in addition to the point, line, and plane problems. Prerequisite: Drawing 301. One one-hour discussion, and eight hours of supervised drawing per week. Credit value: Three semester hours. Laboratory fee, \$2.

Aviation

411. Civil Aeronautics.—This course to conform in all respects to the outline as given by the Civil Aeronautics Authority. The course will consist of lectures and quizzes on the following: History of Aviation; Civil Air Regulations; Navigation; Meteorology; Parachutes; Aircraft and Theory of Flight; Engines; Instruments; and Radio Uses and Forms. Prerequisite: Sophomore standing or permission from the Director of Vocational Flight Training. Given three times per week for twenty four weeks. Credit value: Four semester hours, elective credit.

ENGLISH, JOURNALISM, AND PUBLIC SPEAKING

Professor Sonnichsen; Associate Professor Zimmerman;
Assistant Professors Moses, Egg; Instructors Ball, Bounds,
James Junell, Ponsford, Williams; Part-Time In-
structors King, Nealou

English

For the degree of Bachelor of Arts twelve semester hours in English are required; namely 1 and 12. English 1 is prerequisite to all other courses in English; English 12 or 12Q to all other courses in English literature.

Students expecting to do advanced work in English are advised to take courses in French or German, in history, and in philosophy.

1. Rhetoric and English Composition.—Study of the principles of good writing; outlining; analysis and discussion of typical prose selections; weekly themes; collateral reading. Prescribed for freshmen. Credit value: Six semester hours.

1as. Rhetoric and English Composition.—Repetition of the first semester of English 1.

310fs. Technical Writing.—A course designed as a preparation for technical writing. The principal object is to train the student in outlining and writing upon technical subjects for private reports and for publications. Reports upon assigned topics are required. Prerequisite: English 1. Credit value: Three semester hours.

12. Outline History of English Literature.—Survey of English literature from the beginning to the present time. Study of masterpieces in prose and poetry, selections from Old English being read in translation. Frequent essays each semester. Prerequisite: English 1. English 12 or 12Q is prerequisite to all other courses in English literature. Credit value: Six semester hours.

12as. Outline History of English Literature.—Repetition of the first semester of English 12. Recommended for English majors.

12Q. English and American Literature.—A course designed to replace English 12 for students not expecting to specialize in English. Study of

significant specimens of prose and poetry by Victorian and modern writers; with the object of helping the student to orient himself in the world of today through a study of its literature. A good deal of supplementary reading, frequent conferences with the instructor, and several written reports will be required. The work of the second semester will include the study of significant specimens of prose and poetry from the sixteenth, seventeenth, eighteenth, and early nineteenth centuries with emphasis on the social values of the material and its importance in leading up to the literature of the present day. Prerequisite: English 1. Credit value: Six semester hours. Not recommended for English Majors.

320f. Shakespeare: The Earlier Plays.—Detailed study of a few of the plays composed before 1601, with a rapid reading of others belonging to the same period. Prerequisite: English 12. Credit value: Three semester hours. (Given in 1939-1940; to be omitted in 1940-1941.)

321s. Shakespeare: The Later Plays.—Detailed study of some of the great tragedies, followed by a rapid reading of other plays written after 1600. Prerequisite: English 12. Credit value: Three semester hours. (Given in 1939-1940; to be omitted in 1940-1941.)

322f. Victorian Poetry.—Consideration of the poetic works of Browning primarily, and study of such noteworthy minor poets as Arnold, Clough, James Thompson, and others. Prerequisite: English 12. Credit value: Three semester hours. (Given in 1939-1940; to be omitted in 1940-1941.)

323s. Victorian Poetry.—Consideration of the poetic works of Tennyson primarily, and study of such noteworthy minor poets as Swinburne, Morris, D. G. Rossetti, Christina Rossetti, and others. Prerequisite: English 12. Credit value: Three semester hours. (Given in 1939-1940; to be omitted in 1940-1941.)

325f. English Composition.—Intended for those who wish to study creative writing. Prerequisite: English 12 or 12Q with a grade of at least B. Credit value: Three semester hours. (To be offered in 1940-1941.)

327f. An Outline History of the English Novel.—Brief history of the novel from the romances of the sixteenth century through the eighteenth and the first quarter of the nineteenth century, with study of typical works of Richardson, Fielding, Smollett, Burney, Jane Austen, and Scott. Prerequisite: English 12. Credit value: Three semester hours. (Given in 1939-1940; to be omitted in 1940-1941.)

328s. An Outline History of the English Novel.—A continuation of English 327 with study of typical works of Dickens, Thackeray, George Eliot, Thomas Hardy, and Meredith. Prerequisite: English 327. Credit value: Three semester hours. (Given in 1939-1940; to be omitted in 1940-1941.)

331f. The Drama in England Since 1660.—A study of the representative plays of the Restoration Age, of the eighteenth and nineteenth centuries, and of such modern English playwrights as Jones, Pinero, Barker, St. John Hankin, Shaw, Coward, etc. Prerequisite: English 12. Credit value: Three semester hours. (To be offered in 1940-1941.)

332s. The Development of the American Drama.—A study of the drama of the Colonial and the Revolutionary Periods. Study of the development of the drama to modern times including such modern playwrights as the Mackayes, Thomas, Sheldon, Kaufman and Connelly, Crothers, Hughes, Davis, Anderson, and O'Neill. Prerequisite: English 12. Credit value: Three semester hours. (To be offered in 1940-1941.)

334f. Contemporary Poetry.—Prerequisite: English 12. Credit value: Three semester hours. (Given in the Summer Session, 1939.)

335s. Contemporary Prose.—Prerequisite: English 12. Credit value: Three semester hours. (Given in the Summer Session, 1939.)

336f. American Literature.—A study of the chief American poets and prose writers of the Revolutionary period and the early nineteenth century. Prerequisite: English 12. Credit value: Three semester hours. (To be offered in 1940-1941.)

337s. American Literature.—A study of the most important American poets and prose writers from the Civil War to the present. Prerequisite: English 12. Credit value: Three semester hours. (To be offered in 1940-1941.)

339f. Eighteenth Century Prose.—After surveying rapidly the prose of some earlier writers, the class will study that of Defoe, Swift, Steele, Addison, Johnson, Boswell, Goldsmith, and Burke. Prerequisite: English 12. Credit value: Three semester hours. (To be offered in 1940-1941.)

340s. The Poetry of the English Classical Period.—Detailed study of poems of Dryden and Pope, together with the literary theory and later influence of these writers, the most important contemporary poets furnishing material for parallel reading. Prerequisite: English 12. Credit value: Three semester hours. (To be offered in 1940-1941.)

341f. The Short Story.—The literature and technique of the short story; the rise and nature of its form; an intensive study of its structure, together with an examination of short story types and masterpieces from various countries. Prerequisite: English 12. Credit value: Three semester hours. (Given in 1939-1940; to be omitted in 1940-1941.)

342s. Life and Literature of the Southwest.—Study of verse, fiction, travels, and memoirs to acquaint students with the social inheritance, and its reflection in literature, of Texas and its neighboring territory. Prerequisite: English 12. Credit value: Three semester hours. (Given in 1939-1940; to be omitted in 1940-1941.)

358f. The English Language.—A course designed to give an understanding of the growth, structure, and relationships of the English language with special emphasis on the development of modern English. Attention will be given to the theory of language and its function in human life and progress; the great language groups; developments from the Anglo-Saxon period to modern times. Prerequisite: English 12 or 12Q. Credit value: Three semester hours.

359s. A Continuation of English 358.—English in recent times. Dialects; usage; influence of scientific developments, war, radio, etc.; foreign elements; word building; other topics leading to an understanding and appreciation of the student's native tongue. Prerequisite: English 358. Credit value: Three semester hours.

JOURNALISM

12. News Gathering and Reporting.—Instruction and practice in interviewing and writing; discussion of news sources, news values, and various types of news stories; study of the organization of newspaper staffs and news gathering associations. Prerequisite: Sophomore standing including English 1. Credit value: Six semester hours.

313f. History and Principles of Journalism.—Includes a study of the growth of the modern American newspaper, with emphasis on great figures in American journalism, and a study of the principles of the newspaper and magazine of today. Prerequisite: Sophomore standing including English 1. Credit value: Three semester hours. (Omitted in 1939-1940; to be offered in 1940-1941.)

315s. Basic Advertising.—Study of the mechanics of the writing of advertisements, layouts, copy, illustrations, etc. Use of color, cartoons, line-drawings vs. engravings. Study of the force of words in writing of copy. Prerequisite: Sophomore standing. Credit value: Three semester hours.

322s. The Special Article.—Methods of gathering material for newspapers and magazine feature stories through interviews, research, and observation; study of feature story form and style; discussion of markets for literary material; practice in writing feature stories. Prerequisite: Journalism 12 or English 12. Credit value: Three semester hours. (Offered in 1939-1940; to be omitted in 1940-1941.)

324f. News Editing.—Study of newspaper style books; instruction in headline writing; study of newspaper makeup; practice in reading newspaper copy for errors in fact, English, and style; also practice in writing headlines and rewriting news stories. Prerequisite: Journalism 12 or Journalism 313. Credit value: Three semester hours.

325s. Small Newspaper Production and Management.—Advanced study of newspaper technique and of the problems of newspaper management. Detailed study of makeup, advertising problems, news policies, and business management, leading to a summer internship on Texas newspapers. Prerequisite: Journalism 12. Credit: Three semester hours. (Omitted in 1939-1940; to be offered in 1940-1941.)

326s. Advertising Copywriting and Special Layouts.—Study of technique of copy writing and layout, direct mail advertising, circulars, and department store layouts. Study of marketing and media. Prerequisites: Journalism 12 and Journalism 315. Credit value: Three semester hours. (Omitted in 1939-1940; to be offered in 1940-1941.)

327a. Promotion and Public Relations.—Detailed study of propaganda methods and technique, exploitation, and marketing via news channels. Radio publicity methods. Special emphasis on public relations, direction in industrial, commercial, and retailing fields. Prerequisite: Journalism 12 and Journalism 315. Credit value: Three semester hours.

340a. Editorial Writing and Direction.—Development and importance of the editorial; subject matter, policies, purposes, structure, and style; the editorial page, features, and makeup; editorial training, responsibility, and opportunity. Lectures, class discussions, written work, and written and oral criticism of individual work. Prerequisite: Journalism 12. Credit value: Three semester hours.

Public Speaking

301fs. Speech Correction.—Training in the fundamentals of oral expression, including use of voice, pronunciation, enunciation, good usage, and correction of personal speech defects. Practice in the various forms of public speech will be required. Credit value: Three semester hours.

305fs. Principles of Speech.—A study of the theory of expression, exercises in improving stage presence; practice in speaking with special reference to distinct, direct, and convincing delivery. Speech material and composition emphasized. Prerequisite: Public Speaking 301. Credit value: Three semester hours.

312f. Play Production.—Elementary principles of play production, including acting, staging, lighting and make-up; practice in producing radio and stage plays. A study of the emotional basis of acting; the body as an expressive agent. Lectures, reports, and assigned readings in the literature of the drama and the theatre. A practical course to prepare students to produce plays in schools and communities. Prerequisite: Sophomore standing or six semester hours of Public Speaking. Credit value: Three semester hours. (To be offered in 1939-1940.)

313s. Play Production.—A continuation of Public Speaking 312, with emphasis on casting, rehearsing, and directing. Prerequisite: Public Speaking 312. Credit value: Three semester hours.

320s. Oral Interpretation.—This course is designed to develop an adequate mental and emotional response to the meaning of literature. The necessary attention to the sound and meaning of words should lead to improvement in voice, pronunciation, and general effectiveness in speech. Emphasis is placed on objective speaking. Choric speaking as well as individual recital work will be included. Prerequisite: Junior standing including six semester hours of Public Speaking. Credit value: Three semester hours.

321f. Radio Speech.—A course in the theory and practice of radio writing and speaking with special attention to radio drama. Prerequisite: Six semester hours in Public Speaking and Junior standing. Credit value: Three semester hours.

GEOLOGY

Professor Quinn; Associate Professor Nelson; Instructor Strain

1. Principles of General Geology.—Designed to provide a critical study of the fundamental principles of geology. One additional lecture hour each week will be required of students registering in mining, engineering options and science major. Two hours of lecture and three hours of laboratory demonstration or field work. Laboratory fee, \$4. Credit value: Six semester hours.

316f. Mineralogy.—Crystallography and blowpipe analysis; a study of the crystallography, chemical and physical properties of minerals and mineral determination by blowpipe methods. Classification of minerals. Prerequisite: Chemistry 1 (Chemistry 301 for engineering students). One lecture and six hours of laboratory work. Laboratory fee, \$2. Credit value: Three semester hours.

317s and 217s. Mineralogy.—Determinative mineralogy; a continuation of 316f. Largely devoted to the identification of minerals by physical characteristics. Prerequisite: Geology 316. One lecture and six hours of laboratory work per week for 317. 217s is open only to engineering students who will receive six hours of laboratory work. Laboratory fee: \$2. Credit value: Two semester hours, for 217; three semester hours for 317.

418f. Invertebrate Paleontology.—A systematic study of the structure and classification of the important invertebrates together with their development and geological significance. Prerequisite: Geology 1b. Two lectures and six laboratory hours. Laboratory fee, \$4. Credit value: Four semester hours. (Not given in 1939-1940; to be offered in 1940-1941.)

419s. Paleontological Stratigraphy.—A comprehensive study of the stratigraphy of North America with special emphasis on that of West Texas and the Southwest. Prerequisite: Geology 418. Two lectures and six laboratory hours. Laboratory fee, \$4. The last two hours of this course count as advanced. Credit value: Four semester hours. (Not given in 1939-1940; to be offered in 1940-1941.)

321f. Advanced General Geology.—Certain topics of general geology such as stratigraphy, petrology, and structural geology are expanded in an advanced and quantitative manner. Prerequisite: Geology 16, or 316 and 217. Three lectures and three laboratory hours. Laboratory fee, \$2. Credit value: Three semester hours.

322s. General Economic Geology.—A general consideration of economic occurrences of mineral deposits and rocks with considerable attention given to those of Texas and the Southwest. Prerequisite: Geology 217 or 317. Credit value: Three semester hours.

427s. Petrology and Petrography.—The determination, origin, and subsequent history of minerals and rocks as revealed in mineral grains and thin sections by the petrographic microscope. Prerequisite: Geology 321 in advance or concurrently. Two lectures and six laboratory hours. Lab-

oratory fee, \$4. Credit value: Four semester hours. (Given in 1939-1940; to be omitted in 1940-1941.)

463s. Geology of Petroleum, the Fuels and the Non-Metallics.—Study of the origin, migration and accumulation of petroleum and natural gas; the origin and occurrence of fuels with emphasis on coals; and the study of the important economic occurrences of the non-metallic mineral deposits, stressing those occurring in Texas and the Southwest. Prerequisite: Geology 321. Three lectures and three laboratory hours. Laboratory fee, \$4. Credit value: Four semester hours.

264f Field Geology.—The course will include a field study of a limited area near the College, and the application of quantitative standards to the mapping and geological field studies. An acceptable typed thesis will be required of the successful completion of this course. Prerequisite: Six semester hours of advanced courses in geology. One lecture and one afternoon in field studies. Laboratory fee, \$2. Credit value: Two semester hours.

074s. Geology Field Trip.—A survey trip of about two weeks covering districts of geologic interest. Required of seniors majoring in geology. No credit, but required for graduation

HISTORY, GOVERNMENT, AND SOCIOLOGY

Professor Waller; Associate Professor Null, Assistant Professors Quinn, Gregory, Stormont, Strickland

History

4. History of England.—Survey of the social, economic, political and intellectual development of Britain and the British Empire. First semester, to 1660; second semester, 1660 to the present. Credit value: Six semester hours.

9. History of Europe, 1500-1914.—Brief survey of conditions at the end of the Middle Ages; rise of nationalities and absolutism; colonial expansion; social and economic progress; the Old Regime and the intellectual awakening; the French Revolution and the Napoleonic Era; restoration and reaction; industrial revolution; growth of nationalism and democracy; unification of Germany and Italy; the Balkan states and the Near Eastern problems; economic imperialism; political Socialism and State Socialism; Triple Alliance and Entente Cordiale; background of the World War. Credit value: Six semester hours.

312f. The Ancient World.—A survey of the ancient civilizations—Babylonian, Chaldean, Assyrian, Persian, and Egyptian; more intensive study of the Greek history with its art and culture and its spread over the Mediterranean world; Roman history with its system of law, its early beginnings and expansion over Europe, rise and decline of the Roman Empire. Prerequisite: Sophomore standing or six semester hours in history. Credit value: Three semester hours.

313a. Medieval Europe.—Renaissance and Reformation; cultural development of the Middle Ages; social, artistic, and economic phases of the Renaissance; development of feudalism and rise of city-states; causes and results of the Reformation; period of discovery. Prerequisite: Sophomore standing or six semester hours in history. Credit value: Three semester hours.

315f. History of the United States.—Survey history of the United States from the discovery of America to 1850. Prerequisite: Six semester hours in history or Sophomore standing. Credit value: Three semester hours.

316s. History of the United States.—Survey history of the United States from the Compromise of 1850 to the present. Prerequisite: Six semester hours in history or sophomore standing. Credit value: Three semester hours.

323f. Europe, 1870-1900.—A survey of the different countries of Europe and their internal developments to the close of the century. Prerequisite: Twelve semester hours in history. Credit value: Three semester hours. (Given in 1939-1940; to be omitted in 1940-1941.)

324s. Europe after 1900.—Europe in the twentieth century. The last years of peace, the World War, the peace treaties. Prerequisite: Twelve semester hours in history. Credit value: Three semester hours. (Given in 1939-1940; to be omitted in 1940-1941.)

325f. History of the United States, 1607-1787.—Settlement and development of the Colonies; representative principles of government; westward expansion of the Colonies with the resulting economic and political problems; Mercantilism and the British Imperial policy; colonial participation in the English and French conflicts in America; the American Revolution; state-making and constitutional development during and after the Revolution. Prerequisite: Twelve semester hours in history. Credit value: Three semester hours.

326s. History of the United States, 1787-1829.—Confederation and Constitution; formulation of foreign policy, culminating in classic expression in the Monroe Doctrine; Jeffersonian Democracy and Hamiltonian Federalism; expansion and development of Jacksonian Democracy; rise of nationalism and conflict over States' Rights. Prerequisite: Twelve semester hours in history. Credit value: Three semester hours.

327f. Social and Intellectual Development of the United States before 1860.—This course deals with the gradual development of American civilization. Emphasis is given to social customs, economic influences, racial contributions, religious beliefs, and humanitarian movements, as well as to the intellectual, artistic and scientific interest of the people. May be counted as advanced work in sociology. Prerequisite: Twelve semester hours in history or Sociology 310 and 311, depending upon whether the course is to be counted as advanced work in history or sociology. Credit value: Three semester hours. (Given in Summer Session of 1939.)

335f. History of the United States, 1829-1850.—Jacksonian Democracy; expansion of the United States into the Southwest and Far West; development of the controversy over state rights; slavery and cotton capitalism. Prerequisite: Twelve semester hours in history. Credit value: Three semester hours. (Given in 1939-1940; to be omitted in 1940-1941.)

336s. History of the United States, 1850-1865.—Slavery controversy; manifest destiny; party history, breakdown of the Whigs, rise of the Republican Party, new leaders; Civil War, its causes, economic and social factors, military operations, results. Prerequisite: Twelve semester hours in history. Credit value: Three semester hours. (Given in 1939-1940; to be omitted in 1940-1941.)

347f. Latin America: The Colonial Period.—This course gives a survey of the history and institutional development of Spanish and Portuguese America in the Colonial period. Prerequisite: Twelve semester hours in history. Credit value: Three semester hours. (To be offered in 1940-1941.)

348s. Latin America: The National Period.—This course deals with the empires and republics of Latin America after the Wars for Independence. Prerequisite: Twelve semester hours in history. Credit value: Three semester hours. (To be offered in 1940-1941.)

353f. A Survey of Political and Social Britain from 1815 to 1895.—Tory England, the beginnings of reform, leaders and events in the making of modern Britain. Prerequisite: Twelve semester hours in history. Credit value: Three semester hours. (Omitted in 1939-1940; to be offered in 1940-1941.)

354s. Britain and the Empire from 1895 to the Present.—The Boer War, the Empire and foreign relations, the Liberal party and internal reform, the World War, the Treaty, Britain since 1919. Prerequisite: Twelve semester hours in history. Credit value: Three semester hours. (Omitted in 1939-1940; to be offered in 1940-1941.)

355f. History of the United States Since the Civil War, 1865-1900.—Reconstruction, industrial development and regulation, sectionalism, grangers, greenbackers, populism, silver crusade, passing of the frontier, civil service reform, rise of imperialism. Prerequisite: Twelve semester hours in history. Credit value: Three semester hours. (Omitted in 1939-1940; to be offered in 1940-1941.)

356s. Contemporary History of the United States, 1900 to the Present.—Rise of the United States as a world power, growth of trusts, imperialism and world trade, progressivism, Roosevelt and Wilson, World War and reconstruction, Republican prosperity, depression and world unrest. Prerequisite: Twelve semester hours in history. Credit value: Three semester hours. (Omitted in 1939-1940; to be offered in 1940-1941.)

358s. The Old South.—Expansion, development, life and institutions of the southern United States from the late eighteenth century to the destruction of the old regime in the war for southern independence, 1861-1865. Prerequisite: Twelve semester hours in history. (Given in Summer Session of 1939.)

Government

310fa and 10. American Government.—The government of the United States—national, state, and local—with special emphasis upon the Constitution of the United States and of Texas. Fulfills the legislative requirement of a course on the Constitutions of the United States and of Texas. Prerequisite: Sophomore standing. Credit value for 310: Three semester hours; for 10: Six semester hours.

330f. International Politics.—The principles and political problems involved in foreign policies and international relations of the states of the world with particular emphasis on nationalism and imperialism. Prerequisite: Government 310 and 311, or 10. Credit value: Three semester hours. (Given in 1939-1940; to be omitted in 1940-1941.)

331a. International Organization and Administration.—The development of the machinery and procedure of international government for the peaceful settlement of international disputes. Prerequisite: Government 310 and 311, or 10. Credit value: Three semester hours. (Given in 1939-1940; to be omitted in 1940-1941.)

334f. American National Government and Administration.—The making of the national government; the principles of the Federal system; Citizenship and Constitutional Rights; the organization of Congress; the National Executive and the National Court System. Prerequisite: Government 310 and 311, or 10. Credit value: Three semester hours. (Given in Summer session of 1939.)

335a. American National Government and Administration.—A general view of the powers of Congress; National Executive and National Court System; the organization, personnel and work of the Civil Service and of the Budget Bureau. Prerequisite: Government 310 and 311, or 10. Credit value: Three semester hours. (Given in Summer Session of 1939.)

343f. The Foreign Policies of the United States.—The historical development and present organization of the Department of State and of the Foreign Service; the nature of the foreign relations power and the conduct and control of American foreign relations. Prerequisite: Government 310 and 311, or 10. Credit value: Three semester hours. (Omitted in 1939-1940; to be offered in 1940-1941.)

344s. The Conduct of American Foreign Affairs.—The origin and development of fundamental principles of American diplomacy concerning neutrality, recognition, naturalization and expatriation, and promotion of trade and commerce with special attention devoted to post-war problems. Prerequisite: Government 310 and 311, or 10. Credit value: Three semester hours. (Omitted in 1939-1940; to be offered in 1940-1941.)

Sociology

310fs. Introduction to the Study of Society.—The local social milieu and social institutions; the process and products of interaction; mechanism of interaction, competition, conflict, accommodation, assimilation; society and

the person; social control; social change; social movements. Prerequisite: Sophomore standing. Credit value: Three semester hours.

311fs. Social Pathology.—Physical and mental defectiveness considered from the sociological viewpoint; defects in social organization; poverty and dependency; pathology of personality. Social controls applied to social problems. Prerequisite: Sophomore standing. Credit value: Three semester hours.

345f. The Community.—Methods of studying the community; social anatomy; a comparative study of communities; analysis of the underlying forces and social successes which make for natural groups and institutions to meet industrial, religious, educational, governmental, and leisure-time needs; disorganization and reorganization in modern communities. Prerequisite: Sociology 310 and 311. Credit value: Three semester hours. (Given in 1939-1940; to be omitted in 1940-1941.)

347f. Population Problems and Immigration.—Population movements and their social control; problems of population, distribution, and assimilation. Social questions attending the complex composition of the American people; an examination of the ethnic origin and racial characteristics of "old" and "new" immigrants, taking up the economic, political, and social aspects of their migration to America. Consideration of Americanization programs and immigration laws. Prerequisite: Sociology 310 and 311. Credit value: Three semester hours. (Omitted in 1939-1940; to be offered in 1940-1941.)

348s. Criminology.—Causes, characteristics, and relief of crime, with consideration of mental, physical, economic, and social factors in crime. Attention to the juvenile offender and the social agencies for his adjustment. A sociological analysis and evaluation of penal methods. Prerequisite: Sociology 310 and 311. Credit value: Three semester hours. (Omitted in 1939-1940; to be offered in 1940-1941.)

349f. The Family.—A study of the development of the family as a social institution. Emphasis is placed upon the American family and the problems which confront it today. Prerequisite: Sociology 310 and 311. Credit value: Three semester hours. (Given in 1939-1940; to be omitted in 1940-1941.)

MATHEMATICS AND PHYSICS

Professor Knapp; Associate Professor Durkee; Assistant Professor Schwid
Instructors Barnes, Leech, Liles, Resley

Mathematics

803. Elementary Mathematical Analysis.—A course designed to give the student a good foundation for the study of calculus, the natural sciences, and engineering. The first two weeks are devoted to a review of algebra. Those students not possessing a good working knowledge of algebra at the end of this period are transferred to Mathematics 305. Four recitations. Credit value: Eight semester hours.

304fs. Mathematical Analysis.—An introductory course designed for academic students unifying the basic ideas of algebra, trigonometry, and analytical geometry by means of the function concept. Credit value: Three semester hours.

305fs. Algebra.—A review of secondary-school and intermediate algebra for engineering students whose background in this subject is deficient. Credit value: Three semester hours. (This course cannot be used as a prerequisite to either Mathematics 307 or Mathematics 309.)

307fs. Mathematics of Investment.—An elementary course in the theory and application of the mathematics of finance. Topics covered include logarithms, progressions, simple and compound interest, annuities, amortization, perpetuities. Credit earned may be applied toward the mathematics requirement or elective hours for the B. A. degree. Prerequisite: Mathematics 304. Credit value: Three semester hours.

208fs. Solid Geometry.—Required of candidates for engineering degrees who do not present solid geometry for entrance. This course or high school solid geometry is required of all students beginning calculus. Counts toward academic degrees but not toward engineering degrees. Credit value: Two semester hours.

309fs. Mathematical Analysis.—A continuation of Mathematics 304 and designed for students who do not plan to take other courses in mathematics. Prerequisite: Mathematics 304. Credit value: Three semester hours.

13. Calculus.—In this course differential calculus and integral calculus are carried on together. In differential calculus, special attention is given to the derivation of formulas and to the application of derivatives to the solution of problems in maxima, minima, rates, velocity, acceleration, and geometrical applications. The work in integral calculus drills the student in the integration of forms occurring in mechanics and physics; in evaluating areas, moments, moments of inertia, and volumes, in finding the center of gravity and center of stress; and in the derivation and application of the fundamental formulas of hydrostatics and hydraulics. Prerequisite: Mathematics 208 unless solid geometry is presented for entrance, and Mathematics 303. The last two semester hours of this course count as advanced. Three recitations. Credit value: Six semester hours.

325f. Calculus.—The topics of Mathematics 13 will be extended to include the differentiation and integration of a wider class of functions and the applications of these processes to the solution of a wider range of problems: series, approximations of definite integrals, partial differentiation, complex variables, elementary Fourier expansions, and an introduction to the differential equations. Prerequisite: Mathematics 13. Credit value: Three semester hours.

326s. Differential Equations.—A study of the common types of ordinary and partial differential equations of geometry, mathematics, and electricity. Prerequisite: Mathematics 13. Credit value: Three semester hours.

41. Analytical Mechanics.—Equilibrium and motion of a particle and rigid body in two and three dimensions. May be counted as six advanced semester hours in physics. Prerequisite: Mathematics 13 with a grade of C. Credit value: Six semester hours. (Given in 1939-1940; to be omitted in 1940-1941.)

333f. Theory of Equations.—Theory of polynomials, cubic and quartic equations, approximate methods, determinants, symmetric functions, and other topics. Prerequisite: Mathematics 13. Credit value: Three semester hours. (Given in alternate years; to be offered in 1940-1941.)

337s. Modern College Geometry.—A course in modern plane geometry involving an extension of some of the material of elementary geometry, together with an introduction to projective geometry. Properties of the triangle, properties of the circle, similitude, inversion, cross ratio, and principle of duality. Prerequisite: Mathematics 13. Credit value: Three semester hours. (Given in alternate years; to be offered in 1940-1941.)

Physics

1. General Physics.—Three lectures and two laboratory hours. Laboratory fee, \$4. Credit value: Six semester hours.

12. Second-Year Physics.—First semester: light and heat; second semester: mechanics, electricity, magnetism, and sound. Prerequisite: Physics 1, and Mathematics 13 concurrently. Two lectures and three laboratory hours. Laboratory fee, \$4. Credit value: Six semester hours.

812. Physics: Mechanics, Heat, Electricity, and Magnetism.—Includes a thorough grounding in kinematics, dynamics, statics, kinetics, the elements of precision of measurements, properties of matter, thermometry, expansion, calorimetry, heat and work, change of state, vaporization, condensation of gases, radiation, magnetism, the magnetic field, magnetic induction, electrostatics, electrodynamics, radioactivity. Particular attention is given to composition and resolution of forces, accelerations, and velocities, to simple harmonic motion and to the moment of inertia. Prerequisite: Mathematics 13 concurrently. Three recitations and three laboratory hours. Laboratory fee, \$4. Credit value: Eight semester hours.

222s. Sound and Light.—Prerequisite: Physics 812. One lecture or recitation and three laboratory hours. Laboratory fee, \$2. Credit value: Two semester hours.

34. Electricity and Magnetism.—Advanced theory and laboratory work. Prerequisites: Physics 12 or 812, and Mathematics 13. Two lectures and three laboratory hours. Credit value: Six semester hours. Laboratory fee, \$4. (Given in alternate years. To be offered in 1940-1941.)

Mathematics 41. Analytical Mechanics.—Equilibrium and motion of a particle and rigid body in two or three dimensions. May be counted as six advanced semester hours in physics. Prerequisite: Mathematics 13 with a grade of C. Credit value: Six semester hours. (Given in 1939-1940; to be omitted in 1940-1941.)

MINING AND METALLURGY

Professor Graham; Associate Professor Thomas

Mining

310s. Mining Methods.—Prospecting, exploration, development, exploitation, explosives, breaking ground, drifting, shaft sinking, stoping, timbering, drainage, and ventilation of coal and metal mines. Prerequisite: Chemistry 311, Geology 1a, Drawing 302, and Physics 812a. Three lectures. Credit value: Three semester hours.

321f. Mining Methods.—Continuation of Mining 310. Prerequisite: Mining 310. Three lectures. Credit value: Three semester hours.

322s. Mine and Route Surveying.—Shaft plumbing, underground surveying, mapping of underground connections, surface surveying in connection with mineral claims, and all ordinary operations and calculations that the mine surveyor is called upon to perform. Theory and practical application of simple, reverse and compound curves; rights-of-way; cross-sections; and estimates. Prerequisite: Engineering 414 and Mining 321. Two lectures and three laboratory hours. Laboratory fee, \$2. Credit value: Three semester hours.

223s. Coal Mining.—The extraction, cleaning, and marketing of coal, and the manufacture of coke and collection of all the by-products are considered. Prerequisite: Mining 310. Two lectures. Credit value: Two semester hours.

224. Mine Surveying.—Practical field course in mine surveying. A complete survey and map of one of the mines in the vicinity of the College are required. Students are required to pay all expenses for their transportation and board. Prerequisite: Mining 322. Eight hours daily for two weeks immediately following the close of the Spring semester. Laboratory fee, \$2. Credit value: Two semester hours.

231s. Mining Hygiene.—Lectures and recitations. Prevention of communicable diseases, personal hygiene, public health, food, air, water, soil, ventilation, and heating, sewage disposal, garbage disposal, disinfection, camp sanitation, mine sanitation, prevention of industrial diseases. The course is supplemented by field work in sanitary surveys, and drawing of apparatus. The course also includes work in first aid and rescue work. Prerequisite: Junior standing. Two lectures. Credit value: Two semester hours.

260f. Mine Plant.—A detailed study of underground transport, hoisting plant, skips and cages, compressed air plant, rock drills, mechanical ventilation, and drainage. Emphasis is placed on calculation of problems in connection with choice of equipment. Prerequisite: Senior standing. Two lectures. Credit value: Two semester hours.

261s. Mine Plant.—A continuation of the work given in Mining 260. Prerequisite: Mining 260. One lecture and three laboratory hours. Laboratory fee, \$2. Credit value: Two semester hours.

262s. Mine Plant Design.—The student is required, from a sampled mine or drilling exploration, to determine the value of the property, select a mining system, choose suitable equipment, and write a detailed report. Prerequisite: Mining 260. Six laboratory hours. Laboratory fee, \$2. Credit value: Two semester hours.

367f. Management.—Mine examination, sampling, reporting, welfare, organization, financing, and other interesting management problems are considered in a lecture course given only to students who have senior standing in mining engineering options. Three lectures. Credit value: Three semester hours.

268s. Mining Law.—The principles governing contracts, liabilities of mine operators, compensation and insurance of workmen, and the laws and court decisions of the United States, Texas, and Mexico, so far as they relate to locations and acquisitions of titles to mines, are carefully considered in course of lectures. Prerequisite: Senior standing in mining engineering options. Two lectures. Credit value: Two semester hours. (Given in 1939-1940; omitted in 1940-1941.)

269s. Management.—A continuation of the work given in Mining 367. Prerequisite: Mining 367. Two lectures. Credit value: Two semester hours.

074s. Mining Trip.—At the end of the Senior year, graduating Seniors spend the last two weeks of the second semester on a trip of inspection which will include visits to the mining and metallurgical departments of companies within the scope of the planned itinerary. In 1939 the class visited properties in New Mexico, Colorado, and Arizona, but the route selected will be governed by conditions existing at the time of the trip. Although this trip is not a credit course, it will be required for graduation. Prerequisite: Completion of the requirements for the Bachelor of Science degree by the end of the following fall semester. No credit, but required for graduation.

Metallurgy

321f. General Metallurgy.—Introductory course covering a description of the various processes for treating all the ordinary metals, with a calculation of slags and furnace charges. Prerequisite: Chemistry 413, Physics 312, and Geology 316 and 217. Three lectures. Credit value: Three semester hours.

423s. Ore Dressing and Milling.—Study of the principles of crushing and grinding, amalgamation, concentration, and ore dressing. Prerequisite: Metallurgy 321. Three lectures and three laboratory hours. Laboratory fee, \$4. Credit value: Four semester hours.

325f. Non-metallics.—A survey course of the non-metallic and ceramic industries, not including coal, oil, or sulphur. Emphasis is placed upon the present economic utilization of, and possible future demands for, those minerals which are classed as non-metallic. Prerequisite: Metallurgy 321

must have been completed, or if not, must be taken concurrently. Two lectures and three laboratory hours. Laboratory fee, \$2. Credit value: Three semester hours.

252f. Principles of Copper Smelting.—In this course little attempt is made to study the mechanical features of copper smelting. The place of roasting, smelting, and refining in the pyrometallurgical reduction of a copper ore is given the primary attention, coupled with the calculation of furnace charges and slags. Offered subject to demand. Two lectures. Credit value: Two semester hours.

253s. Electric Furnaces.—A foundation course in electric smelting and the commercial applications of the electric furnace. Offered subject to demand. Two lectures. Credit value: Two semester hours.

361f. Iron, Copper, and Lead.—A study of the metallurgy of the three common metals. One-third of the course will be devoted to calculations pertaining to the above subjects. Prerequisite: Metallurgy 321. Three lectures. Credit value: Three semester hours.

261f. Iron, Copper, and Lead.—This course is intended for those students who select the mining option and is the same as Metallurgy 361 except that the calculations are omitted. Prerequisite: Metallurgy 321. Two lectures. Credit value: Two semester hours.

362f. Metallurgy of Leaching Processes.—Study of the chemical and physical properties of the metals and such of their compounds as are of importance in connection with the leaching processes; the cyanide process, and leaching methods employed in the metallurgy of copper, lead and zinc. Prerequisite: Metallurgy 321. Two lectures and three laboratory hours. Laboratory fee, \$2. Credit value: Three semester hours.

263f. Ore Dressing and Milling.—A continuation of Metallurgy 423. Prerequisite: Metallurgy 423. Two lectures. Credit value: Two semester hours.

364s. Metallurgical Laboratory.—In this course the student receives an individual problem, or problems, which he handles as research work. At times this work will consist of problems submitted to the College from various fields of metallurgy. Prerequisite: Metallurgy 361 and Metallurgy 362. Six laboratory hours. Laboratory fee, \$2. Credit value: Three semester hours.

264s. Metallurgical Laboratory.—This course handles part of the work covered by Metallurgy 364 and is intended for those students who wish to do some research work but cannot devote the time necessary for full credit toward graduation. Prerequisite: Metallurgy 361. Six laboratory hours. Laboratory fee, \$2. Credit value: Two semester hours.

265f. Ore Dressing and Milling.—Ore testing and mill design. Prerequisite: Metallurgy 263 in advance or concurrently. Six laboratory hours. Laboratory fee, \$2. Credit value: Two semester hours.

473s. Metallography.—An elementary course in the metallography of various metals and products and the heat treatment of iron and steel.

Prerequisite: Metallurgy 321. Three lectures and three laboratory hours. Laboratory fee, \$4. Credit value: Four semester hours.

074s. Metallurgical Trip.—At the present time this trip will be taken with Mining 074. When it is to the best interests of the metallurgical students to deviate from the route of the Mining 074 trip, such changes will be made, but in the main the two trips will be taken together. Prerequisite: Completion of the requirements for the Bachelor of Science degree by the end of the following Fall semester. No credit, but required for graduation.

MODERN LANGUAGES

Professor Bachmann; Assistant Professors Avrett, Eldridge, Olmstead; Instructor Fineau

The admission requirement of two units is represented by Course A, which will not count toward a degree for students presenting two admission units in a modern language. Those with two units will enter Course 1a in the same language. For those presenting three units neither Course A nor Course 1a will count. Such students will enter Course 1b.

French, German, Spanish

A. Fundamentals of Grammar and Pronunciation.—Elementary grammar; reading of easy texts; dictation; oral drill; conversation. Credit value: Six semester hours.

1. Grammar, Reading and Composition.—Grammar review, written exercises, dictation, reading of intermediate texts. Outside readings with weekly conferences and reports. Prerequisite: Course A or two admission units in the language. Credit value: Six semester hours.

12. Intermediate Readings in the Modern Period.—Selected readings from the nineteenth and twentieth centuries. Some grammar review, reports, conferences and outside readings. Prerequisite: Course 1. Credit value: Six semester hours.

French

335f. Modern Novel: Early Period.—Reading of eighteenth century novelists such as Lesage, L'abbe Prevost and Bernadin de St. Pierre and of 19th century novelists up to about 1850. Prerequisite: French 12. Credit value: Three semester hours. (Given in 1939-1940; to be omitted in 1940-1941.)

337s. Modern Novel: Later Period.—A study of the naturalistic school of novelists from Flaubert to Maupassant. Prerequisite: French 12. Credit value: Three semester hours. (Given in 1939-1940; to be omitted in 1940-1941.)

338f. Introduction to French Romanticism.—Reading of representative novels and plays by Hugo, de Vigny, Dumas Pere and Musset, etc. Prerequisite: French 12. Credit value: Three semester hours. (Offered in 1940-1941. Given in Summer Session of 1939.)

357s. Advanced Composition and Grammar Review.—A course recommended for prospective teachers. An intensive review of grammatical principles and idioms. Exercises in translation and free composition. Prerequisite: French 12. Credit value: Three semester hours. (Offered in 1940-1941. Given in Summer Session of 1939.)

Spanish

301fs. Conversational Spanish.—A practical course designed for non-Spanish students who wish to acquire a fluent ability to express themselves in the language. Open to all students. Not counted toward fulfillment of requirements for the modern language majors. Credit value: Three semester hours.

13. Social and Business Usage.—Translation, composition, and conversational practice in the language of business and everyday life. Reading of texts, building up of practical vocabulary, and grammatical drill in essential constructions. This course is not intended for Spanish majors but is recommended for students who will not continue into courses in the literature. Prerequisite: Spanish 1. Credit value: Six semester hours.

328s. Golden Age Drama.—A study of the leading dramatists, such as: Lope de Vega, Tirso de Molina, Calderon de la Barca, Ruiz de Alarcon, Moreto, and others. Readings of selected masterpieces; outside readings and reports. Prerequisite: Spanish 12. Credit value: Three semester hours. (Given in 1939-1940; to be omitted in 1940-1941.)

332s. Classical Epoch Prose.—A study of the movements in the prose writings of the sixteenth and seventeenth centuries, such as: novelesque, chivalresque, picaresque, satirical, pastoral, mystic, etc. Readings of masterpieces; outside reading reports. Prerequisite: Spanish 12. Credit value: Three semester hours. (Given in 1939-1940; to be omitted in 1940-1941.)

334f. Early Epics and Ballads.—A study of the field of ballads and epics. Special emphasis on the epic heroes in the ancient ballads. Readings of special selections; outside readings and reports. Prerequisite: Spanish 12. Credit value: Three semester hours. (Given in 1939-1940; to be omitted in 1940-1941.)

335f. Modern Novel: Early Period.—A study of the trends in the development of the novel from the latter part of the eighteenth to the latter part of the nineteenth century. Readings from such authors as: Padre Isla, Fernan Caballero, Pedro Antonio de Alarcon, Juan Valera, Jose Maria de Pereda, Perez Galdos, etc.; outside reading reports. Prerequisite: Spanish 12. Credit value: Three semester hours. (Omitted in 1939-1940; to be offered in 1940-1941.)

336f. Modern Drama: Early Period.—A study of the trends in the development of the drama from the latter part of the eighteenth to the latter part of the nineteenth century. Readings from such dramatists as: Leandro Fernandez de Moratin, Martinez de la Rosa, Breton de los Herberos, Lopez de Ayala, Tamayo y Baus, etc.; outside reading reports. Prerequisite: Spanish 12. Credit value: Three semester hours. (Omitted in 1939-1940; to be offered in 1940-1941.)

337s. Modern Novel: Later Period.—A study of the trends in the development of the novel from the latter part of the nineteenth century to the present. Selected readings from such authors as: Pardo Bazan, Palacio Valdes, Blasco, Ibanez, Pio Baroja, Ricardo Leon, Perez de Ayala, etc.; outside reading reports. Prerequisite: Spanish 12. Credit value: Three semester hours. Omitted in 1939-1940; to be offered in 1940-1941.)

338. The Romantic Period.—A study of the development of romanticism in the literature of the early nineteenth century. Selected readings of such writers as: Espronceda, Jose de Larra, Duque de Rivas, Garcia Gutierrez, Hartzenbusch, Jose Zorilla, etc.; outside readings. Prerequisite: Spanish 12. Credit value: Three semester hours. (Given in Summer Session of 1939.)

340s. Modern Drama: Later Period.—A study of the trends in the development of the drama from the latter part of the nineteenth century to the present. Readings of representative works from such dramatists as: Echegaray, Perez, Galdos, Jacinto Benavente, Los Quinteros, Martinez Sierra, Eduardo Marquina, etc.; outside reading reports. Prerequisite: Spanish 12. Credit value: Three semester hours. (Omitted in 1939-1940; to be offered in 1940-1941.)

357f. Advanced Composition and Grammar Review.—A course recommended especially for teachers and language majors. An intensive review of grammatical principles, idiomatic usage and style. Exercises in translation and composition. Prerequisite: Spanish 12 or 13. Credit value: Three semester hours. (Given in 1939-1940; to be omitted in 1940-1941.)

358s. Contemporary Literature.—A consideration of the movements in contemporary literature, with study of representative authors of the various movements. Outside readings and reports. Prerequisite: Spanish 12. Credit value: Three semester hours. (Given in Summer Session of 1939.)

MUSIC**Assistant Professor Johnson; Instructor Roe****APPLIED****Band**

01. Ensemble.—Exercise materials for large and small groups; marching practice and maneuvers. Five hours per week throughout the year. This course may be substituted for Physical Training 01 or 02. Non-credit.

311. Ensemble.—More advanced exercise materials for large and small groups; continuation of marching exercise and maneuvers. Five hours per week throughout the year. Prerequisite: Music 01. Credit value: Three semester hours.

321. Instrument Technique.—Specialized study of various instruments of the band with emphasis on solo material. Five hours per week throughout the year. Prerequisite: Music 311. Credit value: Three semester hours.

331. Instrumental Methods.—Study of instrumentation, concert materials, ensembles, management, and rehearsal procedure from standpoint of the director. Five hours per week throughout the year. Prerequisite: Music 321. Credit value: Three semester hours.

Chorus

02. Chorus Music.—Song materials of a type suitable for study purposes with emphasis placed on notation, phrasing, breathing, diction. Five hours per week throughout the year. Non-credit.

312. Chorus Music.—More advanced song materials with increased emphasis on correct singing. Five hours per week throughout the year. Prerequisite: Music 02. Credit value: Three semester hours.

322. Choral Ensemble Music.—Participation in smaller ensemble groups stressing vocal technique for the individual. Prerequisite: Music 312. Credit value: Three semester hours.

332. Choral Methods Music.—Methods in the presentation of various problems in choral direction, organization and management; serving as an advisory group to the officers of the Varsity Singers. Prerequisite: Music 322. Credit value: Three semester hours.

Orchestra

03. Orchestra.—Concert and study materials of the class suitable to the individual students. Five hours per week throughout the year. Non-credit.

313. Orchestra.—More advanced studies as assigned by the Director. Prerequisite: Music 03. Credit value: Three semester hours.

323. Orchestra.—Chamber music group-studies for all instruments and solo literature for all instruments. Five hours per week throughout the year. Prerequisite: Music 313. Credit value: Three semester hours.

333. Orchestra.—The direction, organization, and management of school and civic orchestras. Study of instrumentation and baton technique. Five hours per week throughout the year. Prerequisite: Music 323. Credit value: Three semester hours.

PUBLIC SCHOOL MUSIC

51. Music in the Elementary Grades.—This course, offered in the training of teachers and supervisors of Public School Music, includes the study of rote-singing and teaching methods, lesson preparation and presentation, and teaching-technique. The course is supplemented by other departments of the school. Prerequisite: Education 314 and 318; and Music 10 or consent of the instructor. Credit value: Six semester hours.

52. Music in the High School.—Instrumental and vocal teaching technique in the high school along with suggestions in motivating interest and in organizing bands and orchestras. Individual participation and special observations will provide the practical experience necessary. Prerequisite: Education 316 and 317, and Music 10 or consent of instructor. Credit value: Six semester hours.

THEORY

1. Sight Singing and Ear Training.—This course includes the fundamentals of music such as scale building and writing; music notation, *sol-feggio*; the singing of melodies at sight; two, three, and four-part singing; and the writing of melodies after hearing them played. Credit value: Six semester hours. (Offered in 1939-1940.)

10. First Course in Harmony.—This course includes the study of scales, intervals, elementary chord formation, primary and secondary triads, dominant and secondary sevenths, melody writing, harmonization of melodies, study of cadential combinations including many of the important chord forms throughout the major and minor keys. Prerequisite: Music 1, or *Sophomore* standing and consent of instructor. Credit value: Six semester hours.

20. Advanced Harmony.—This course includes the study of ninth, eleventh, and thirteenth chords; altered chords derived from the interchange of mode, and the Neopolitan sixth; and augmented harmonies, transition, modulation, and further work in keyboard harmony. Prerequisite: Music 10. Credit value: Six semester hours. (To be omitted in 1940-1941.)

30. History and Appreciation of Music.—The development of music from the earliest writers to the modern composers is included in this course in conjunction with a study of the major operatic and symphonic works. Prerequisite: Music 10. Credit value: Six semester hours. (To be offered in 1940-1941.)

40. Counterpoint.—This course is a study of the melodic tones; melody formation; two, three, and four-part counterpoint in all species; invertible counterpoint; canonic imitation; and original writing in the contrapuntal

forms. Prerequisite: Music 10. Credit value: Six semester hours. (To be omitted in 1940-1941.)

50. Theory and Practice of Conducting.—A course meant primarily for individuals interested in the direction of either instrumental or choral organizations. It consists of detailed study and analysis of instrumental and vocal scores besides practical application of laws governing the baton. Prerequisite: Twelve semester hours of music or Music 10. Credit value: Six semester hours.

PHILOSOPHY AND PSYCHOLOGY

Professor Roth

Philosophy

312f. Logic.—Introduction to essentials of correct thinking: deductive and inductive reasoning; fallacies and argumentation. Recommended for students majoring in science or preparing for the study of law. Prerequisite: Sophomore standing. Credit value: Three semester hours. (Given in 1939-1940; to be omitted in 1940-1941.)

314f. Problems of Philosophy.—An introduction to the main general problems of philosophy such as those of matter, mind, life, truth and value; the field of philosophy with its relation to the special sciences and to scientific method is stressed. Prerequisite: Sophomore standing. Credit value: Three semester hours. (Omitted in 1939-1940; to be offered in 1940-1941.)

315s. Ethics.—Introductory survey of the evolution of moral codes and ideals; reflective morality; conduct and character; conflicts of interests; personal and social ethics. Prerequisite: Sophomore standing. Credit value: Three semester hours. (Omitted in 1939-1940; to be offered in 1940-1941.)

316s. Philosophie of Life.—Study of the various classical philosophies of life from the point of view of their moral, religious, and aesthetic values. Prerequisite: Sophomore standing. Credit value: Three semester hours. (Omitted in 1939-1940; to be offered in 1940-1941.)

317s. The Philosophy of Civilization.—A comprehensive study of man's social, economic and ethical development as viewed in the light of the contributions of the modern sciences. His place in the world today, and his potential future destiny will be evaluated. Prerequisite: Sophomore standing. Credit value: Three semester hours. (Given in 1939-1940; to be omitted in 1940-1941.)

Psychology

310fs. Introductory Psychology.—A survey of the field of general psychology. Prerequisite: Sophomore standing. Credit value: Three semester hours.

311s. Fields of Psychology.—Survey of genetic, animal, abnormal, social and applied psychology; mental measurements and experimental methods. Prerequisite: Psychology 310. Credit value: Three semester hours. (Given in 1939-1940; to be omitted in 1940-1941.)

316s. Business Psychology.—A study of the psychological factors and principles involved in modern business, industry, marketing, advertising and salesmanship. Prerequisite: Psychology 310. Credit value: Three semester hours. (To be offered in 1940-1941.)

320f. The Psychology of Personality.—A study of the fundamental traits of personality, their origin, development and control; maladjustments and disorders of the personality and their treatment. Prerequisite: Psychology 310, and three additional semester hours of either philosophy or psychology. Credit value: Three semester hours. Formerly Psychology 319. (Given in 1939-1940; to be offered in 1940-1941.)

344s. Mental Hygiene.—Prerequisite: Six semester hours in psychology, or in philosophy, or in both. Credit value: Three semester hours. (Given in 1939-1940; to be offered in 1940-1941.)

DEGREES CONFERRED IN JUNE, 1939

Bachelor of Science in Mining Engineering

Bardsley, Bernard Bohn
Benson, Robert J.
Harris, George Edward
Mitcham, Tom W.
Montague, Harry Lee
Morales D., Arturo M.

Perez O., Nicolas
Prado R., Enrique
Schaefer, Cesar Arroyo
Valencia, Samuel
Valdes Lopez, Evaristo
Vega, Arnulfo

Bachelor of Arts

Adams, Agnes Leighton
Barlow, Emily Cornelia
Burnes, Margaret C.
Bess, Virginia Rose
Bickley, Rachel Anne
Black, Wilma Francelle
Boyer, Mildred G.
Pradt, Estelle Josephine
Buciaga Z., Estella
Camp, Frances Danforth
Camp, Jennie Lynn
Coulehan, Lee
Cunningham, Annabelle
Davis, Roy Newell
Erickson, Vivian Annetta
Franklin, Susan Elizabeth
Gonzalez, Graciela
Gore, Herbert Carr
Hackett, Barbara Ann
Heid, Mrs. Litty Belle G.
Hernandez, Tony
Higdon, Rosemary
Hill, Aileen Catherine
Holley, Minnetta M.
Hunnicut, Mary Scott
Johnson, Frances Elizabeth
Johnson, Juanita
Johnson, Lloyd Seamon
Kaffer, Jeanne

Lackland, Nancy
Lavender, Eunice
Lee, Edith Mae
Licon, Francisco
Lyon, Mary Eleanor
McCormick, Francis William
McDonnell, Margaret
Mier, Carlos
Moore, Albert Ross
Nalley, Hardy Clifford
Newman, Tom Blachley
Page, Sallie
Paredes, Peter Albert, Jr.
Peden, Jack
Prieto, Philip M.
Rathbun, Lavonne Oneth
Resley, Louise Fletcher
Rice, Virginia
Robinson, Mary Josephine
Roper, Maxine E.
Sanders, Virgil
Tappan, Marion Frances
Teague, Keith MacCallum
Thompson, Helen MacPherson
Turner, Mary Frances
Vazquez, Alfredo G.
Williams, Alva Ruth
Willits, Joe Sam
Zlabovsky, Esther

Zollars, Fannilee

DEGREES CONFERRED IN AUGUST, 1939

Bachelor of Science in Mining Engineering

Hungerford, Merle Ross, Jr.

Quevedo Q., Alberta

Bachelor of Arts

Arms, Homer
Arnold, Ira C.
Atkinson, Esther F.
Banks, Mary Ella
Bibo, Bernice
Blythe, Olive
Boehm, Frederick Peter
Bowman, Dale
Campos, Francisco Jose
Cashon, Edwin T.
Cox, Maple K.
Fernandez, Abraham, Jr.
Fleming, Ellnor
French, Alice W.
Geer, Adella Cochrane
Guthrie, Julia Ann Dannenberg
Howard, William Freeman
Lancaster, Jonathan
Lassiter, Virginia Anne

Light, Ellen Macpherson
Loomis, Eliza Berrien
Martin, Margaret Wrona
Mulcahy, Mary Catherine
Newman, Frances Montague
Niland, Ada Sandefer
Perez, Porfirio
Phillips, Sallie
Porter, David Knox, Jr.
Rainey, Helen Walsh
Reynolds, Melville
Robinson, Patricia Avis
Scotten, Wilma Cleavenger
Simpson, Nell Frances
Stevens, Margaret Olive
Thomas, Louise B.
Tinnin, Lee R.
Watson, Mary McGee
Wiser, Ortella Lenora

REGISTER OF STUDENTS

Long Session, 1938-39

Abadie, Robert	Austin	Barton, John Richard	El Paso
Abbott, Tom	El Paso	Barwise, Marjorie	El Paso
Abbott, William	El Paso	Baughman, Don C.	Yuma, Arizona
Abrego, Alfredo	El Paso	Beahler, Lee	El Paso
Acason, Gloria	El Paso	Beal, Grace	El Paso
Adams, Agnes	El Paso	Bean, Willis	El Paso
Adams, Mrs. Elizabeth	El Paso	Beard, Bettle	El Paso
Adkins, Thomas	El Paso	Beatz, John	El Paso
Akeroyd, Edward	El Paso	Becker, John A., Jr.	El Paso
Akeroyd, Margaret	El Paso	Beckham, Vance	Wickett
Alden, Catalina	El Paso	Beckham, Vivian N.	Wickett
Alderete, Francisco	El Paso	Bell, Edward, Jr.	El Paso
Alexander, Mrs. E.	El Paso	Beltz, Geraldine	El Paso
Alsop, Ed E.	Madill, Oklahoma	Bemis, George C., Jr.	El Paso
Alton, Noel	El Paso	Bentish, Joe	El Paso
Alvillar, Ruben F.	El Paso	Benjamin, Elsie	El Paso
Amis, Frank E.	Ysleta	Bennett, Efa Lou	El Paso
Anderson, Mrs. J. E.	El Paso	Benson, Robert	El Paso
Andre, Lois	El Paso	Berryhill, Richard	El Paso
Andre, Ruth	El Paso	Bess, Lillian	El Paso
Andresen, Winnifred	El Paso	Bess, Virginia	El Paso
Apodaca, A. G.	Ysleta	Betancourt, Serge	El Paso
Apodaca, Jessie	Ysleta	Bevan, Donald	El Paso
Arguelles, Fernando	El Paso	Beys, George	El Paso
Armagnac, Martin	El Paso	Bickley, Rachel	El Paso
Arms, Homer	Sulphur, Oklahoma	Biggs, Irene	El Paso
Arnold, Ira C.	Roscoe	Black, Bill	El Paso
Arnold Katherine	Marathon	Black, Buddy	El Paso
Arnold, Lufe	El Paso	Black, Donald	El Paso
Arnold, Lu Venia	El Paso	Black, Focha	El Paso
Arredondo, Cecilio	El Paso	Black, Gordon	El Paso
Arredondo, Concha	El Paso	Black, Kate	El Paso
Arroyo, Cesar	El Paso	Black, Wallace	El Paso
Arroyo, Robert	El Paso	Black, Wilma	El Paso
Asmann, Margaret	El Paso	Blackmon, Jack	Abilene
Atkinson, Mrs. Esther	El Paso	Blackwell, Jack	El Paso
Atria, N. F.	El Paso	Blalock, Clovis	El Paso
Attel, George	El Paso	Bledsoe, Robert	El Paso
Austin, George	El Paso	Blount, Wanda Jo	El Paso
Avila, Salvador	Santa Rita, N. M.	Blythe, Olive	El Paso
Bacher, Mrs. Opal	El Paso	Boehm, Fred	El Paso
Bagge, Louise	El Paso	Botand, Beth	El Paso
Bailey, La Berta	El Paso	Bolling, Jack	Austin
Baird, Ruth	El Paso	Bomberger, Hilda	El Paso
Balenti, Mike	Altus, Oklahoma	Bonaguida, Loraine	El Paso
Balenti, Richard	Altus, Oklahoma	Borders, Jimmie	El Paso
Ball, Mrs. George H.	El Paso	Borunda, Joe	El Paso
Banks, Mary Ella	El Paso	Boudreaux, Emile	El Paso
Barber, Treman	El Paso	Bowden, Mary Elizabeth	Fabens
	Oklahoma City, Okla.	Bowers, Carl	Odessa
Barboglio, Pete	El Paso	Bowling, Bob	Leroy, Alabama
Bardsley, Bernard	El Paso	Bowman, Dale	El Paso
Barlowe, Emily	El Paso	Bowman, Meta	El Paso
Barnes, Margaret	El Paso	Boyd, Dan	El Paso
Barrett, Frank	El Paso	Eoyd, Hershel	Crane
Barrett, Fred, Jr.	Tulsa, Okla.	Boyer, Mildred	El Paso
Barrett, Joe	Temple	Bradley, Jack	El Paso
Barron, Jack	El Paso	Bradshaw, Mary Frances	El Paso
Barrueta, Alfonso	El Paso	Bradt, Estelle J.	El Paso

REGISTER OF STUDENTS

Branch, Bill	El Paso	Chavez, Rufina	El Paso
Britt, Harry	Amarillo	Chesnut, Dewey	Penwell
Brock, Winnifred	El Paso	Chew, Antonio	El Paso
Brown, Edgar	.....	Chew, C. L.	El Paso
.....	San Luis Potosi, Mexico	Chilton, Bert	Odessa
Brown, J. B.	El Paso	Clark, Frances Jane	El Paso
Brown, Kenneth	Clarendon	Clark, Harold	El Paso
Brown, Lyle	El Paso	Clark, Mary Young	El Paso
Brown, Paul	El Paso	Clark, Robert	El Paso
Brown, Peggy	El Paso	Clausewitz, Erlwood	San Antonio
Brummett, Milton	El Paso	Cleaveland, Earl	El Paso
Bryan, W. Joe, Jr.	El Paso	Clifford, Hugh	El Paso
Bryant, David	Stephenville	Cobos, Oscar	El Paso
Bryant, Robert R.	El Paso	Cobos, Victor	El Paso
Bryars, Wanga	El Paso	Coggeshall, Louise	El Paso
Buchholz, Oscar	El Paso	Cole, J. Fred, Jr.	Clint
Bulos, Jesus,	El Paso	Collins, Bill	El Paso
Burchell, Margo	El Paso	Compton, Bobbie	Houston
Burciaga, Carmen	El Paso	Conner, Millard, Dothan,	Alabama
Burciaga, Estella	El Paso	Connor, Leonard	El Paso
Burdette, Jack	El Paso	Cook, C. W.	El Paso
Burgard, Pete	El Paso	Cook, Jean	Ysleta
Burrus, Constance	Ysleta	Copenhaver, Mary	El Paso
Burtis, Mrs. Emma	El Paso	Coppedge, Elna	El Paso
Bush, Mary Elizabeth	El Paso	Cordero, Francisco M.	El Paso
Eyers, John William	El Paso	Cordova, Gabriel	El Paso
Calderhead, Bill	El Paso	Corona, Aurora	El Paso
Calhoun, Sam	El Paso	Cottingham, Dee	El Paso
Cameron, Bruce	El Paso	Cotton, George	Palestine
Camp, Fannie	El Paso	Cotton, Russell	Palestine
Camp, Jennie	El Paso	Coulehan, Lee	El Paso
Campbell, Doris	El Paso	Cox, Esther	El Paso
Campbell, William	Ysleta	Cox, Maple	El Paso
Campos, Jose	El Paso	Cozby, Joe	El Paso
Cantrill, Jack	El Paso	Crabtree, Margaret	El Paso
Cantu, Luis	Juarez, Mexico	Crabtree, Marion	El Paso
Caplinger, Mrs. Alice	El Paso	Cram, John G.	El Paso
Carbajal, O. Henry	Fabens	Cranor, Evelyn	El Paso
Carlsen, Flora	El Paso	Cravens, Marjorie J.	El Paso
Carlson, Robert	El Paso	Crimen, Jenny Bob	El Paso
Carlton, Julia	El Paso	Crimen, John C., Jr.	El Paso
Carlton, Paul	El Paso	Crockett, Pearl	El Paso
Caro, Manuel	El Paso	Crosby, Ruby	El Paso
Carpenter, Alfred J.	El Paso	Cross, R. R.	La Tuna
Carpio, Federico	Juarez, Mexico	Cross, Virginia	La Tuna
Carrasco, David	El Paso	Crowe, Edward E.	Pecos
Carrasco, Mike	El Paso	Cuen, M. J.	El Paso
Carrera, Julius	El Paso	Cunningham, Annabelle	El Paso
Carrera, Phillip	El Paso	Cunningham, R. E.	El Paso
Casey, Doyle	El Paso	Curtiss, Patty	El Paso
Cashon, Ed.	Hornbeak, Tenn.	Cuthbertson, Louis	Kilgore
Casillas, Richard	El Paso	Daeuble, Thomas	El Paso
Casner, Mary Ellen	El Paso	Dalton, Edward	La Tuna
Casteel, Martha	El Paso	Daly, Henry M., Jr.	Presidio
Chalmers, Henry B.	.....	Daniel, John Newton	El Paso
.....	Brooklyn, N. Y.	Darnall, Virginia	El Paso
Chancey, Mrs. Edna	El Paso	Davalos, Hannibal	El Paso
Chapin, John L.	El Paso	Davalos, William	El Paso
Chaparro, Miguel	El Paso	Davenport, James	El Paso
Chapman, Lydia	El Paso	Davis, Anne	El Paso
Chapman, Christine	El Paso	Davis, Frank	Matador
Chapman, Mrs. W. T.	El Paso	Davis, Jim	El Paso
Chappell, Dorothy Lee	El Paso	Davis, R. L., Jr.	El Paso
Chavez, Oscar	El Paso	Davis, Roy	El Paso

Davis, Thelma Lee	Sierra Blanca
Dawson, Jean	El Paso
Dean, Charles	Plainview
Dean, Mrs. Helen	El Paso
de la Garza, Jesus	..... Douglas, Arizona
de Leon, Alfredo	El Paso
Delgado, Pablo	El Paso
Dell, Lloyd, Auburn Heights, Mich.	del Sobral, Daniel
del Valle, Salvador	El Paso
Des Autels, Phebe	El Paso
Desmond, Vincent	Brooklyn, N. Y.
Des Saullés, Dorothy	La Tuna
Dew, Joe K.	Ysleta
De Witt, Albert	El Paso
Dickenson, Mrs. Helen	El Paso
Dixon, R. M.	La Tuna
Dockray, Grace	El Paso
Dominguez, Francisco	El Paso
Donoho, Charles	Austin
Dorris, Estelle	El Paso
Dorris, Loris	Troup
Douglas, Earl	El Paso
Downey, Jane	El Paso
Dreasher, C. H.	La Tuna
Drees, Betty B.	El Paso
Drehner, Dorothy	El Paso
Duffy, Laurence	El Paso
Duke, Jack	El Paso
Duncan, Jane	Ysleta
Duncan, Wayne	El Paso
Dupree, Joe	El Paso
Duthie, Larry	El Paso
Duty, Eddie Mae	El Paso
Duty, Lucile	El Paso
Earp, Mrs. Pine Mae	El Paso
Echantiz, Eugene	El Paso
Echlin, Bob	El Paso
Eden, George	El Paso
Elkin, Margaret	El Paso
Ellis, Jack	El Paso
Ely, Mrs. Maude	El Paso
Emerson, R. J.	El Paso
Emery, Waldo	El Paso
Erickson, Vivian	El Paso
Escudero, Enrique	El Paso
Espinosa, Juan, Jr.	El Paso
Espinosa, Lorenzo	El Paso
Eubanks, Ralph	La Tuna
Evans, Sam Jack, Jr.	Waco
Evans, Ward	Tulsa, Oklahoma
Ezquerro, Baldomero	El Paso
Feeback, Josephine	El Paso
Feeback, Virginia	El Paso
Fenton, Claude	Odessa
Fenton, La France	Odessa
Ferguson, Betty Jule	El Paso
Fernandez, Abraham	El Paso
Fernandez, Elena	El Paso
Fernandez, Martin	El Paso
Fernandez, William	El Paso
Fino, Ben	El Paso
Fish, Mrs. Irene B.	El Paso
Fisher, Mrs. Lovella	El Paso
Fleming, Ellinor	El Paso
Flores, Alfredo	El Paso
Flores, Louis	Fabens
Floyd, Marsena	El Paso
Foester, Annette	El Paso
Folk, Robert G.	El Paso
Footé, Janet	El Paso
Forbes, Frank	El Paso
Force, Charlotte	El Paso
Force, James A., Jr.	El Paso
Ford, William E.	El Paso
Foreman, Bill	El Paso
Foreman, George	El Paso
Foret, Mrs. Belle	El Paso
Forsythe, Fern	San Antonio
Fox, Edna	El Paso
Franco, Jesus	El Paso
Franey, C. Jane	El Paso
Franklin, Anna	El Paso
Franklin, Joanna	El Paso
Franklin, Susan E.	El Paso
Franks, Edward	El Paso
Fresquez, Jose	Ysleta
Fuentes, Charles	El Paso
Fugate, George	El Paso
Fuller, Seale	El Paso
Gaal, George	El Paso
Gabbert, D. K.	El Paso
Gabriel, Charles	El Paso
Gaddy, James	El Paso
Gage, William	Austin
Gaither, Doyle	El Paso
Galbraith, Helen	El Paso
Galindo, Mrs. Isis	El Paso
Gallagher, Ann	El Paso
Gallup, Edward	Clint
Callup, Kenneth	Clint
García, Armando	El Paso
García, Esequiel	El Paso
García, Jorge	..... Chihuahua City, Mexico
García, Jose	El Paso
García-Nunez, Margarita	El Paso
Garner, Ruth	Abilene
Gary, Wilma	El Paso
Garza, Harry	Floresville
Gatlin, Allison	San Antonio
Gavaldon, Jesus	El Paso
Geer, Adella	El Paso
Gehring, Alice	El Paso
Gentry, Mrs. Mary Nell	El Paso
Gerwels, Richard	..... Tacoma, Washington
Gibson, Evelyn	El Paso
Gibson, Harland	El Paso
Gibson, Jane	El Paso
Gilchrist, George	El Paso
Gill, Jack	El Paso
Gish, Charles	El Paso
Goldfarb, Bill	El Paso
Gonzales, Andy	El Paso
Gonzalez, Graciela	El Paso
Goodman, Paula	El Paso

REGISTER OF STUDENTS

107

Gordon, Stan	El Paso	Hefner, O. W., Jr.	Hico
Gore, Herbert	El Paso	Heid, Mrs. Lilly Belle	El Paso
Gorham, George	El Paso	Hell, Babette	El Paso
Grant, Joyce	El Paso	Heineman, Kenneth	El Paso
Grant, Ruby	El Paso	Heinzel, Jack	El Paso
Graves, Donald	El Paso	Heisig, Shirley	El Paso
Graves, Raymond	El Paso	Heller, Isaac	El Paso
Gray, Thomasine	El Paso	Hellweg, Ralph	El Paso
Green, Marjorie	El Paso	Hemley, Allen	El Paso
Greening, Virginia	Kress	Hemley, Barbara	El Paso
Gregory, Harold J.	Garland	Henderson, Clark	Toyah
Griffin, Peggy Lou	El Paso	Hendon, Juanita	El Paso
Grooms, Virginia	El Paso	Hendricks, Charlee	El Paso
Grubbs, Esperanza	Marfa	Hermann, Arthur	El Paso
Gruber, Doris	El Paso	Hernandez, Fred	El Paso
Gruber, Juanita	El Paso	Hernandez, Tony	El Paso
Guernsey, Dick	El Paso	Herrera, Albert M.	El Paso
Guerrero, Alicia	El Paso	Herring, Amelia	Clint
Guffey, John	El Paso	Hershey, Donovan	El Paso
Guinn, J. S.	El Paso	Hershey, Maude V.	El Paso
Gutierrez, Rafael B.	El Paso	Hesler, John	El Paso
Haas, Werner	Monterrey, Mexico	Hicks, John A., Jr.	El Paso
Hackett, Barbara	El Paso	Higdon, Rosemary	El Paso
Haddad, Alice	El Paso	Higdon, Therese	El Paso
Haisley, Claude	Taft	Higgins, Gertrude	El Paso
Haisley, Kathryn	El Paso	Hill, Aileen	El Paso
Hall, Arthur	El Paso	Hill, Garnet R.	La Tuna
Hall, Darrell	El Paso	Hill, Howard	El Paso
Hall, Darwin	El Paso	Hines, Elizabeth Ann	El Paso
Hall, Robert L.	El Paso	Hinton, Mary Blair	El Paso
Hamlyn, Dorothy	El Paso	Hoard, Roy	El Paso
Hamlyn, Richard	El Paso	Hodges, Mildred	El Paso
Hammonds, Clyde	El Paso	Hodges, Ralph	El Paso
Hanigan, Marie	El Paso	Hoffer, Elizabeth	El Paso
Haninger, Harriett	El Paso	Holley, Minnetta	El Paso
Hanna, Mrs. Ethel	El Paso	Holmes, Mrs. Annie	El Paso
Hanna, Mary Jane	El Paso	Holmes, Thomas	El Paso
Hanson, Nellie	El Paso	Howard, Ralph	El Paso
Haraway, Jasper	El Paso	Howard, William	El Paso
Hardcastle, Hazel B.	El Paso	Howe, Henry, Jr.	El Paso
Hardy, Cleo	El Paso	Howell, Emma Jean	El Paso
Hare, Donald A.	El Paso	Howell, Marlon Chase	El Paso
Hargrove, Nell	El Paso	Howle, Loyle	El Paso
Harmon, Billye Lee	El Paso	Hubbard, Edwin	El Paso
Harmon, Lee	El Paso	Hudson, Bill	El Paso
Harper, Estelle	El Paso	Hudson, Jack	El Paso
Harper, James	El Paso	Huff, Henry	El Paso
Harrell, Christine	El Paso	Huffman, D.	La Tuna
Harris, Mrs. Esther	El Paso	Hughes, Sue	El Paso
Harris, Gary	El Paso	Hughes, Winifred	El Paso
Harris, George	El Paso	Hungerford, Merle, Jr.	El Paso
Harris, Mozelle	El Paso	Hunnicut, Bobbie	El Paso
Harrison, J. E.	El Paso	Hunnicut, Scottie	El Paso
Harshbarger, John W.	Myerstown, Pa.	Hunt, Jack	El Paso
Hart, James A.	El Paso	Hunter, Lester	El Paso
Hatch, Merle	El Paso	Hunter, Quenton	Canton
Houghton, Rosemary	El Paso	Hutchins, Helen	El Paso
Hawkins, Mary Virginia	Carlsbad, N. M.	Hyatt, Chester	La Tuna
Hayes, Nell	El Paso	Hyland, Eunice D.	El Paso
Hays, Alice	El Paso	Ibarra, Rafael B.	El Paso
Hays, Eugene	El Paso	Indermuehle, Lloyd R.	El Paso
Hazelton, George	El Paso	Isensee, Marjorie	El Paso
Healy, Jack	El Paso	Insl, Frank C.	La Tuna
		Ivey, Rosalie	El Paso

Jaballe, Lily	El Paso	Lancaster, Jonathon ..	Van Horn
Jackson, Dorothy	El Paso	Lance, John F.	El Paso
Jackson, Sue	El Paso	Lance, Donald	El Paso
Jameson, Mrs. Naomi ...	El Paso	Lane, Ray	El Paso
Jeffers, Robert E.	La Tuna	Lange, June	El Paso
Jenkins, Mervyn	El Paso	Lanier, Betty Sue	El Paso
Jenness, Bennie	Houston	Landsdowne, Jean	El Paso
Jenness, Harry	El Paso	La Porte, Alma	El Paso
Jenness, Richard	El Paso	Lassetter, Jean	El Paso
Johnsen, Arnie (Guy)	Volm, S. Dakota	Lassetter, Robert	El Paso
Johnson, Betty	El Paso	Lassiter, Newton	El Paso
Johnson, Bill	El Paso	Lassiter, Virginia	El Paso
Johnson, F. W.	El Paso	Lavender, Eunice	El Paso
Johnson, Haskell Lee ...	El Paso	Lawless, Raymond	El Paso
Johnson, Jane	El Paso	Lee, Mrs. Edith	El Paso
Johnson, Juanita	Crockett	Leeser, David, Chihuahua, Mexico	
Johnson, L. C.	Kermit	Leininger, Mary Anne ..	El Paso
Johnson, Lloyd S.	Ysleta	Leon, Heracleo	El Paso
Johnson, Rankin	El Paso	Leonard, Jeanne Claire .	El Paso
Johnston, Joe	Granbury	Ickel, William	El Paso
Jones, Betty	El Paso	Licon, Francisco	El Paso
Jones, Frances	El Paso	Light, Ellen	El Paso
Jones, Grayce	El Paso	Light, Hilda	El Paso
Jones, Jack	El Paso	Lind, Mrs. L. A.	El Paso
Jones, Wm. Richard	El Paso	Lindlof, Ed	El Paso
Joseph, George	El Paso	Lindlof, Mary Louise ...	El Paso
Jourdan, Everitt	El Paso	Link, Felice	El Paso
Joyner, Marie	El Paso	Livingston, Morgan	El Paso
Kaffer, Jeanne	El Paso	Lizarraga, Ligia	El Paso
Kahn, Louis	El Paso	Lizarraga, Servando ...	El Paso
Kannady, Jack	Temple	Long, Betty Barbara ...	El Paso
Kelly, Josephine	El Paso	Loomis, Mrs. Eliza	El Paso
Keltner, Edwarda	El Paso	Lott, Ellison	El Paso
Kemp, Betty Joe	El Paso	Love, Mrs. Myrtle	El Paso
Kennedy, Jane	El Paso	Love, Tom	El Paso
Kilgore, Charles	El Paso	Lozano, Rafael	El Paso
Kirley, Bernard	Ysleta	Luckett, Joe	Knippa
Key, Oren	El Paso	Lynch, Donald	Ray, Arizona
King, Charles	El Paso	Lynch, Sue Jean	El Paso
King, George	Dallas	Lyon, Eleanor	El Paso
King, James	El Paso	Lyon, Robert	El Paso
King, Jimmy	El Paso	Jyons, Peggy	El Paso
Kirby-Smith, Selden ...	El Paso	McAdoo, Fay	El Paso
Kissel, Marianne	El Paso	McAllister, Warren	Tuxedo
Kitson, Nancy	El Paso	McCall, Martha Mae ...	El Paso
Klabock, Beatrice	El Paso	McAlmon, Peter	El Paso
Knight, Marguerite	El Paso	McCabe, Donald	El Paso
Knipps, August	El Paso	McCallick, Hugh	El Paso
Knowles, Robert	El Paso	McCamant, Sue	El Paso
Kobold, Doty	El Paso	McCann, Leo	Midland
Korenek, F. A.	La Tuna	McCarty, Jack	El Paso
Kornfeld, Leonard	El Paso	McClure, Jim	El Paso
Kozloske, Martha	El Paso	McConachie, Mrs. Phyllis,	El Paso
Kranzthor, Terry	El Paso	McCord, Frank	El Paso
Krebs, John	Odessa	McCormick, Francis	El Paso
Kremth, Bobble	El Paso	McCutchan, Nell	El Paso
Kriechbaum, James	El Paso	McDonald, Betty	El Paso
Lacey, Bida Mae	El Paso	McDonnell, Ada	El Paso
Lackland, Nancy	El Paso	McDonnell, Margaret ...	El Paso
Lambert, Cy	El Paso	McKee, Margaret	El Paso
Lambert, Joe	El Paso	McKenzie, Gene	El Paso
Lambeth, J. D.	El Paso	McKenzie, Mary	El Paso
Lampert, Fred	El Paso	McKenzie, Pauline	Marfa
		McKinney, Mrs. W.	El Paso

REGISTER OF STUDENTS

109

McKinzie, Etheridge ..	Monahans	Mitchell, Mary Ann	El Paso
McMillan, Joe	Waelder	Mitchell, Theodosia	El Paso
McNail, Elizabeth	El Paso	Mithoff, Richard	El Paso
McNail, Thelma	El Paso	Monroe, Donald	El Paso
McNiel, Guy	El Paso	Monroe, Ruth	El Paso
McNiel, Mary Jane	El Paso	Montague, Marie	Dallas
McTier, Frank	El Paso	Montague, Harry	El Paso
MacFarlane, Sheila	El Paso	Montgomery, Harold	Houston
Machado, Manuel	El Paso	Mooney, Patricia Ann ...	Ysleta
Macias, Elias ..	Santa Rita, N. M.	Moore, Bert C. ..	Doniphan, Mo.
Madland, R. D.	El Paso	Moore, D. C.	Van Horn
Maiorana, Frank	Houston	Moore, Harry, Jr.	El Paso
Malone, Mrs. Larette	El Paso	Moore, Jean	El Paso
Mangan, Frank	El Paso	Moore, Paul B.	Fort Worth
Manker, Hazel Ann	El Paso	Moore, Richard	El Paso
Manning, Julia	El Paso	Moore, Ross	Sarepta, La.
Maros, Mike	Fabens	Moore, Wesley	El Paso
Marshall, Grady, Denver, Colorado		Mora, Salvador	El Paso
Marston, Margaret	El Paso	Morales, Arturo	El Paso
Martin, James R.	El Paso	Morales, Victor	El Paso
Martin, John E.	El Paso	Moreno, Arturo	El Paso
Martin, Margaret	El Paso	Morkin, Mrs. E. Dowd ..	El Paso
Martin, Mrs. Mary	El Paso	Morris, Bert	El Paso
Martin, Mary Alyce	El Paso	Morris, Dorothy Faye ...	El Paso
Martin, Peggy	El Paso	Morrow, M. W.	La Tuna
Martin, Robert	El Paso	Morrow, Virginia	El Paso
Martinez, Elodoro	El Paso	Morton, Amelia	El Paso
Martinez, Jane	El Paso	Mosley, Harold	El Paso
Martinez, Luis	El Paso	Moussier, Maria	
Martinez, Maria	El Paso	..... Alamogordo, N. M.	
Martinez, Rosita	El Paso	Moye, Edwin	El Paso
Martinez, Victor	El Paso	Mueller, Albert T.	El Paso
Mason, Helen ...	Huntsville, Ala.	Mueller, Emil J.	El Paso
Matheson, Riley ..	Hedrick, Okla.	Mueller, William	El Paso
Maurice, James	Odessa	Mulcahy, Catherine	El Paso
Maxwell, Norris	El Paso	Munoz, F. Nicolas	El Paso
Maya, Manuel	El Paso	Murphey, Bob	El Paso
Mayfield, Geraldine	El Paso	Murphy, Frances	El Paso
Mayfield, William	El Paso	Nalley, Hardy	Dallas
Medina, Jose F.	El Paso	Nance, Bennie Alma	El Paso
Medrano, Edmundo	El Paso	Nance, Billie Louise	El Paso
Meeck, Dids	Lamesa	Napcles, Cecilia	El Paso
Melendez, Jose	El Paso	Nash, Jackie	El Paso
Mellard, June	El Paso	Nations, Hildon	El Paso
Mendoza, J. R., Chihuahua, Mexico		Navarro, Victor	El Paso
Merrell, William Martin		Naylor, James	El Paso
..... Hale Center		Neece, Richard, Jr.	El Paso
Metcalf, Juanita	El Paso	Neely, Margaret	El Paso
Meyer, Wilma	El Paso	Neeson, Jim	El Paso
Mier, Carlos	El Paso	Negrete, Rafael ..	Juarez, Mexico
Miller, A. R., Jr.	Fabens	Nelson, Llycd A., Jr. ...	El Paso
Miller, Mrs. E. E.	El Paso	Neugebauer, Eugene ...	El Paso
Miller, Frances	El Paso	Newman, Frances	El Paso
Miller, Harry	Huntsville	Newman, Tom	El Paso
Miller, Howard	El Paso	Newton, Mrs. C. D.	El Paso
Miller, Richard	Dallas	Nichols, Lawrence	Victoria
Miller, W. E.	El Paso	Niland, Mrs. Ada	El Paso
Mills, Charles	El Paso	Nordin, Windsor	El Paso
Mills, Julian	El Paso	Nordwald, Ruth	El Paso
Miskimins, Harry	El Paso	North, C. L.	El Paso
Miskimins, Ruth	El Paso	Norwood, Margaret	El Paso
Mitcham, Tom	El Paso	Oden, Altanell	El Paso
Mitcham, Robert	El Paso	O'Leary, Albert	El Paso
Mitchell, Clarence, Jr. ..	El Paso	Olson, John W.	El Paso

110 COLLEGE OF MINES AND METALLURGY

O'Neal, Emma	El Paso	Puente, Victor	El Paso
O'Neal, Kermit	El Paso	Pugh, Wilford M.	Wink
O'Neill, Susie	El Paso	Quesada, Jesus	El Paso
Oppenheim, Charles	El Paso	Quevedo, Albert	El Paso
Oppenheim, Clarence	El Paso	Quick, Miriam	El Paso
	Juarez, Mexico	Quiroz, Benjamin	El Paso
Ornelas-G., Catalina	El Paso	Rainey, Helen	El Paso
Ortiz, Ignacio	Juarez, Mexico	Raines, Jean	Keytesville, Mo.
Overlock, L. C.	El Paso	Rains, Marjorie	El Paso
Page, Annie	El Paso	Ramos, Filemon	El Paso
Page, Sallie	El Paso	Rancich, G. A.	Fabens
Pajari, Raymond	El Paso	Ramsey, Henry	El Paso
Palm, Irene	El Paso	Randall, Bill	El Paso
Pankey, James	Tulsa, Okla.	Randel, Mrs. Maggie	El Paso
Paredes, Felipe	El Paso	Raney, Morris	Temple
Paredes, Peter	El Paso	Rathbun, Lavonne	El Paso
Parham, Ralph	El Paso	Ravel, Mrs. Maxwell	El Paso
Parrish, Joe	El Paso	Reagan, Bruce W.	El Paso
Patton, Mary Jane	El Paso	Reed, Joyce	El Paso
Paul, Bob	El Paso	Reed, Sam H.	El Paso
Paxton, Mavis	El Paso	Redd, Raymond	El Paso
Pearce, L. I.	Anson	Reese, Audaine	Lampasas
Peevey, Katherine	Marfa	Reinemund, Gretchen	El Paso
Pell, George	El Paso	Resley, Louise F.	El Paso
Pendley, Claude	Dallas	Reynolds, Mel	El Paso
Penick, Earline	Houston	Reynolds, William, Jr.	El Paso
Penick, Robert	Houston	Rheinheimer, Emilie	El Paso
Pennell, Mary J.	El Paso	Riba, Robert	El Paso
Pennington, Barry	Georgetown	Rice, Robert J.	El Paso
Perez, Charles	El Paso	Rice, Virginia	El Paso
Perez, Nicolas	El Paso	Rike, William	El Paso
Perez, Porfirio	El Paso	Rindom, Virgil	El Paso
Perez, Soledad	El Paso	Rinehart, Tiffany	El Paso
Perry, Paul	El Paso	Rister, Eugene	El Paso
Peterson, Dorothea	El Paso	Ritter, Robert	El Paso
Peterson, Walter	El Paso	Roberts, Clodine	El Paso
Phillips, Jack	El Paso	Roberts, Danora	El Paso
Phillips, Lillian	El Paso	Roberts, Florine	El Paso
Phillips, Sallie	El Paso	Roberts, Mildred	El Paso
Pierce, Wendell L.	El Paso		Zacatecas, Mexico
Pillow, Mrs. Lucille	El Paso	Roberts, Walton	El Paso
Pitman, James Leon	Kermit	Robinson, Gene	El Paso
Pitts, Howard	El Paso	Robinson, Madden	El Paso
Polk, Thomas	El Paso	Robinson, Mary Jo	El Paso
Ponsford, Florence	El Paso	Robinson, Mrs. Patricia	El Paso
Ponsford, Olga	El Paso	Robinson, Richard	El Paso
Porras, Mario	El Paso	Roden, Mildred	El Paso
Porter, David	Coleman	Rodgers, Nell	El Paso
Porter, Vayne	El Paso	Rodgers, Pollard	El Paso
Poske, Alma	El Paso	Rodriguez, Bertha	El Paso
Poske, Jane	El Paso	Rodriguez, Mildred	El Paso
Potash, William	El Paso	Rodriguez, Salvador	El Paso
Prade, Frank	El Paso	Rogde, Margaret	El Paso
Prado, Enrique	El Paso	Rojas, Ramon	El Paso
Pratl, Joe, Jr.	El Paso	Roman, Jose	El Paso
Price, Dick	El Paso	Romo, Estela	El Paso
Price, John E.	El Paso	Romo, Lillian	El Paso
Price, Joseph V.	El Paso	Roper, Maxine	El Paso
Price, Lorez M.	El Paso	Roper, Mont O.	El Paso
Price, Owen F.	Chicago, Ill.	Rose, Mrs. Grace	El Paso
Prieto, Juan	El Paso	Rosenbaum, Arthur	El Paso
Prokschl, Robert	Kermit	Rosenberg, Corinne	El Paso
Prothro, Doris	El Paso	Rosenberg, Sam	El Paso
Pruitt, French	El Paso	Roslyn, Mrs. Margaret	El Paso

REGISTER OF STUDENTS

111

Ross, Charlie	El Paso	Sowell, Horace W., Jr.	El Paso
Rouse, Mrs. Marie	El Paso	Sowers, S. G.	El Paso
Rowdabaugh, Marshall	Warsaw, Ind.	Spar, Morton	Monticello, N. Y.
	Warsaw, Ind.	Sparks, Betty Anne	El Paso
Ryan, Fred	El Paso	Sparks, Ruth M.	El Paso
Sackett, Bernice	El Paso	Spence, Wm. S.	El Paso
Sadowsky, Julius	Van Horn	Stablein, Betty	El Paso
Saenger, Omarie	El Paso	Stacy, Jim	El Paso
Saffold, Bill	El Paso	Stansbury, H. F.	La Tuna
Saffold, Marian	El Paso	Stanton, Lawrence	El Paso
Salas, Rosendo	Juarez, Mexico	Stark, Betty	El Paso
Sacedo, Gilbert	El Paso	Starr, Leona	Marathon
Saldana, Nicanor	El Paso	Stevens, Margaret	El Paso
Sanders, Mrs. Charm	El Paso	Stewart, Mrs. Alyne	El Paso
Sanders, Edward	El Paso	Stewart, Bob	El Paso
Sayklay, Sam	El Paso	Stewart, Mrs. Mary V.	Canutillo
Scarborough, Catherine	El Paso	Stewart, Olive	El Paso
Sceraves, Margie	El Paso	Stice, Kenneth	Marietta, Okla.
Schermerhorn, W. A.	La Tuna	Stiles, Ray	El Paso
Schroeder, Martha E.	Wilmington, Calif.	Stoker, Mrs. Eryline	El Paso
	Wilmington, Calif.	Stover, Raymond	El Paso
Scott, Nancy	El Paso	Stowe, Jimmie Lou	El Paso
Scotten, Mrs. Wilma	El Paso	Stirman, Marlon W.	El Paso
Serna, Guana	El Paso	Strain, Mrs. W. S.	El Paso
Serrano, Armando	El Paso	Stringer, William W.	El Paso
Serrano, Joe	El Paso	Strout, Albert	El Paso
Shamaley, John	El Paso	Stubblefield, Dorothy	Canutillo
Shamaley, Lee	El Paso	Stubblefield, Jackle	Canutillo
Shannon, Brady	Elephant Butte, N. M.	Stull, Charles	El Paso
	Elephant Butte, N. M.	Sullivan, Patrick G.	El Paso
Shapleigh, Eliot	El Paso	Sundquist, Gus	El Paso
Shapleigh, Robert	El Paso	Sundquist, Theima	El Paso
Sharp, Addie Jo	El Paso	Sweeney, Helen	El Paso
Shepard, Carl	Huntsville	Sweeney, Joe U., Jr.	El Paso
Sherman, Maurice	El Paso	Szrulyovics, Ernest	El Paso
Sherman, Ray	El Paso	Tappan, David	El Paso
Sherwood, Clarice	El Paso	Tappan, Marlon	El Paso
Shively, Russell	El Paso	Taylor, Allen	Gainesville
Shoopman, Billie	Odessa	Taylor, Charlie	Victoria
Silva, Hector	El Paso	Taylor, Edwin	El Paso
Silva, Roy	El Paso	Taylor, Floyd	El Paso
Silver, Henrietta	El Paso	Taylor, Raymond	El Paso
Simon, Joseph	El Paso	Teague, Keith	El Paso
Simpson, Andrew R.	El Paso	Teague, Mrs. Mildred	El Paso
Simpson, Nell Frances	Lamesa	Telles, Raymond	La Tuna
Skaggs, Patty M.	El Paso	Terrazas, Alfredo	El Paso
Skeen, Lucille	Carlsbad, N. M.	Terrazas, Nick	El Paso
Skiff, Josephine	El Paso	Thacker, Fred	El Paso
Slauter, Lee	El Paso	Thomas, Cecil	Thorp Spring
Sleet, Harwell	El Paso	Thompson, Betty	El Paso
Smith, Cecil	Grapeland	Thompson, Gerald	El Paso
Smith, Frank	El Paso	Thompson, Mrs. Helen	El Paso
Smith, J. Morgan	Hot Springs, Ark.	Thorne, John	El Paso
	Hot Springs, Ark.	Thurston, Marjorie	El Paso
Smith, Mary Frances	El Paso	Tiller, Lela	El Paso
Smith, Maurine E.	El Paso	Tillery, Carol	El Paso
Snelson, Marshall	Monahans	Tillman, Juanice	El Paso
Snider, Robert	El Paso	Tinnin, Lee	El Paso
Soforo, Oscar	El Paso	Tolbert, T. P.	La Tuna
Solomon, Jack	El Paso	Tole, Bill	El Paso
Sorensen, Harry	El Paso	Tomlin, Betty Jeanne	El Paso
Sorensen, Jeanne	El Paso	Toone, Herbert	Esperanza
Soucek, Effie	El Paso	Toone, James	Esperanza
Soucek, Mae	Ed Paso	Tracht, Jocelyn	El Paso

112 COLLEGE OF MINES AND METALLURGY

Trevino, Salvador	El Paso
..... Mexico City, Mexico	
Trueblood, Margaret ...	El Paso
Turner, Diana	El Paso
Turner, Mary Frances ...	El Paso
Twining, John	El Paso
Twiss, Frances	El Paso
Unsell, Virginia	El Paso
Upperman, Joyce	El Paso
Valdes, Evaristo	El Paso
Valencia, Elva	El Paso
Valencia, Samuel	El Paso
Valentino, Alfred	El Paso
Van Doren, Donald	El Paso
Vargas, Jose	El Paso
Vasquez, Eduardo	El Paso
Vazquez, Alfredo	El Paso
Vega, Arnulfo	El Paso
Vega, Tony	El Paso
Vermillion, John H.	El Paso
Vesey, Gladys	El Paso
Vigil, Victor	El Paso
Villareal, Federico	
..... Monterrey, Mexico	
Villareal, Rodolfo	
..... Monterrey, Mexico	
Vinson, Benita	El Paso
Vinson, David	El Paso
Walbridge, Mary Lee ...	Ysleta
Walker, Clarence	El Paso
Walker, Lytle R.	El Paso
Walker, Maurine	Kerens
Walker, Rosemary	El Paso
Walsh, Elizabeth	El Paso
Wardy, Jim	El Paso
Warne, Betty	El Paso
Warren, Hosea	Hico
Watson, Mrs. John	El Paso
Watson, Mrs. Mary	El Paso
Watzke, Donald	El Paso
Watzke, Richard	El Paso
Webel, Herman	El Paso
Webel, Kenneth E.	El Paso
Webel, Lewis	El Paso
Wehner, Bill	El Paso
Weiller, Harold	El Paso
Wells, Louise	El Paso
Wentz, Frank	Big Spring
Werley, Richard	El Paso
West, Dorothy Louise ...	El Paso
West, Elizabeth	El Paso
West, Margaret	El Paso
Weyerts, Lucille	El Paso
Whisenhunt, Nellie	El Paso
Whitaker, Mary	El Paso
White, Betty	El Paso
White, Jack	El Paso
White, James H.	El Paso
Whitlock, R. A., Jr.	El Paso
Wickstead, Mrs. Angellna,	El Paso
Wilbourn, Donald	El Paso
Wilbourn, Martha	El Paso
Wileman, Alice	El Paso
Wiley, Howard B.	El Paso
Williams, Arthur	
..... Zacatecas, Mexico	
Williams, Athalie Nell ..	El Paso
Williams, Betty Jo	El Paso
Williams, Charley	El Paso
Williams, C. L., Jr.	El Paso
Williams, Dorothy M.	El Paso
Williams, Frances E.	El Paso
Williams, Lelaroy	El Paso
Williams, Oliver	El Paso
Williams, Ruth	El Paso
Williamson, Byron	Canutillo
Williamson, Nolan	El Paso
Willie, Winifred	El Paso
Willis, Joe Sam	El Paso
Wilmoth, Wilma	El Paso
Wilson, Gordon, Ft. Towson,	Okla.
Wilson, Jane	El Paso
Wilson, Hugh Beverly	
..... Gulfport, Miss.	
Wilson, Louise	El Paso
Wilson, Mary	El Paso
Wilson, Ned	El Paso
Wilson, Mrs. Olga	El Paso
Wimberly, Charles	Plainview
Winans, F. Newton	El Paso
Windberg, Anne	El Paso
Wintroub, S. Z.	El Paso
Wiser, Ortella	El Paso
Withers, Kenneth L.	El Paso
Wolter, Kathryn	El Paso
Womack, Leandra	El Paso
Womack, Paul, Jr.	El Paso
Wong, John	El Paso
Woodley, Dorothy	El Paso
Worle, Fred	El Paso
Wosika, Leon	El Paso
Wright, Margaret	Terrell
Wright, Nanyree ..	Throckmorton
Wright, Stanley	Monahans
Yapor, Mike	El Paso
Yeager, Gilbert	El Paso
Young, Forrest	El Paso
Zea, Oscar	Mexico, D. F.
Zent, A. F.	La Tuna
Zimmer, Harry, Jr.	El Paso
Zlabovsky, Esther	El Paso
Zlabovsky, Julia	El Paso
Zollars, Fannilee	El Paso
Zozaya, Jose	El Paso

REGISTER OF STUDENTS

Summer Session, 1939

Abbott, Tom	El Paso	Brownfield, Jane	El Paso
Abrego, Alfredo	El Paso	Brulay, Mrs. Glory	El Paso
Acason, Gloria	El Paso	Bryan, W. Joe	El Paso
Adams, Mrs. Elizabeth	El Paso	Bryant, David	Stephenville
Alderete, Francisco	El Paso	Bryars, Wanga	El Paso
Allen, Mrs. Della J.	El Paso	Buchholz, Oscar	El Paso
Alton, Noel	El Paso	Buck, Mrs. Susan	El Paso
Andresen, Winnifred	El Paso	Euie, John H.	Corsicana
Apodaca, Jessie	El Paso	Bush, Mrs. Sue	El Paso
Arms, Homer	El Paso	Byfield, Ada	El Paso
Arnold, Ira	El Paso	Byler, Lola	El Paso
Arredondo, Cecilio	El Paso	Calhoun, Samuel	El Paso
Arroyo, Robert	El Paso	Calisch, Charles	El Paso
Atkinson, Mrs. Esther	El Paso	Campos, Jose	El Paso
Attel, George	El Paso	Cantu, Luis	Juarez, Mexico
Avila, Salvador, Santa Rita, N. M.		Caplinger, Mrs. Alice	El Paso
Azar, Shibley	El Paso	Carlsen, Flora	El Paso
Babcock, Clarence	Fort Davis	Carlson, Robert	El Paso
Bagge, Mrs. Louise	El Paso	Carlton, Julia	El Paso
Ball, Thomas	El Paso	Carpenter, Alfred	El Paso
Ballentine, Kelly	Ysleta	Carrasco, Eliseo	El Paso
Baltz, Don	El Paso	Carrera, Philip	El Paso
Banks, Mary Ella	El Paso	Cashon, Ed	El Paso
Barber, Treman		Casner, Mrs. Mary E.	El Paso
.....Oklahoma City, Okla.		Cassidy, Frances	El Paso
Bardwell, Mrs. Esther	La Tuna	Chalmers, Henry B.	New York
Barger, Mrs. Eleanor	El Paso	Chesak, W. J.	El Paso
Barnes, Mrs. Marguerite	El Paso	Chew, Antonio	El Paso
Barnett, Mrs. Alma	El Paso	Clark, Rollin F.	El Paso
Barrett, Frank	El Paso	Cobos, Oscar	El Paso
Barron, Jack	El Paso	Cobos, Victor	El Paso
Barrueta, Alfonso	El Paso	Cochran, Frankie Lee	El Paso
Barton, Mrs. May	El Paso	Cole, Lillian	El Paso
Barwise, Marjorie	El Paso	Connor, Leonard	El Paso
Beahler, Lee	El Paso	Coppedge, Elna M.	El Paso
Bell, Edward, Jr.	El Paso	Cordova, Gabriel	El Paso
Bell, Nelda	El Paso	Cotton, Russell	Palestine
Bemis, George	El Paso	Cox, Maple C.	El Paso
Bennett, Mrs. Efa Lou	El Paso	Cox, Wilmoth	El Paso
Bibo, Mrs. Bernice	El Paso	Crabtree, Margaret	El Paso
Black, Kate	El Paso	Cromble, Bill	El Paso
Black, Mrs. Louise	El Paso	Curtiss, Mrs. Virginia	El Paso
Black, William	El Paso	Daniel, John N.	El Paso
Blon, Robert	El Paso	Davenport, James	El Paso
Bluth, Mrs. Veva	El Paso	Davis, Adalay	El Paso
Blythe, Mrs. Olive	El Paso	Davis, Mrs. Edna	El Paso
Boehm, Fredrick	El Paso	Davis, James F.	El Paso
Bomberger, Hilda	El Paso	Davis, R. L.	El Paso
Borders, Jimmie	El Paso	Davis, Thelma Lee, Sierra Blanca	
Porunda, Carlota	El Paso	Daugherty, Mrs. Emily	El Paso
Bowden, Mary Elizabeth	Fabens	Dean, Charles	Plainview
Bowman, Dale	El Paso	de Leon, Alfredo	El Paso
Bowman, Meta	El Paso	del Sobral Dantel	El Paso
Braden, Mrs. Barbara	El Paso	del Valle, Salvador	El Paso
Branch, Bill	El Paso	Dennis, Mrs. Elizabeth	El Paso
Bretz, Beatrice	El Paso	Denny, Mrs. Maude	El Paso
Brick, Bernice	El Paso	Diaz, Oscar H.	Juarez, Mexico
Bridgers, Mrs. Rowena	El Paso	Dickerson, Mrs. Lucile	El Paso
Brown, Lyle	El Paso	Dolman, Mrs. Louise	El Paso

Douglass, Earl	El Paso
Dowell, Mrs. Mary	El Paso
Duke, Margaret Louise	Canutillo
Duthie, Larry	El Paso
Earp, Mrs. Pina Mae	El Paso
Echlin, Bob	El Paso
Eden, George	El Paso
Edwards, H. T.	El Paso
Elfers, Mrs. Nancy	El Paso
Ellis, Jack	El Paso
Esterly, Wilson	El Paso
Feeback, Josephine	El Paso
Feeback, Virginia	El Paso
Ferguson, Eula Mae	Laredo
Fernandez, Abraham	El Paso
Fernandez, Martin	El Paso
Fernandez, William	El Paso
Fields, Sarah	Clint
Fisher, Mrs. Lovella	El Paso
Fleming, Ellinor	El Paso
Fletcher, Dick	El Paso
Fooster, Annette E.	El Paso
Forbes, Frank	El Paso
Foret, Mrs. Belle	El Paso
Foster, Mrs. Inez	El Paso
Franey, C. Jane	El Paso
French, Mrs. Alice	El Paso
Fresquez, Jose A.	Ysleta
Gaddy, James	El Paso
Gage, William	Austin
Gaither, Doyle	El Paso
Galindo, Mrs. Isis	El Paso
Garcia, Armando	El Paso
Garcia, Jose	El Paso
Geer, Mrs. Adella	El Paso
Gehring, Alice	El Paso
Gibson, Evelyn	El Paso
Gibson, Harland	Arbon, Idaho
Gillespie, Mrs. Dorothy	El Paso
Gilreath, Mrs. Josephine	El Paso
Grady, Annie	El Paso
Graves, Mrs. Eva	El Paso
Graves, Raymond	El Paso
Gray, Thomasine	El Paso
Gregg, Brooks	El Paso
Griffin, Marguerite	El Paso
Grubbs, Mrs. Esperanza	El Paso
Gruber, Doris	El Paso
Gruber, Juanita	El Paso
Guernsey, Dick	El Paso
Guthrie, Mrs. Julia	El Paso
Gutierrez, Rafael	El Paso
Hall, Mrs. Mabel	El Paso
Hall, Robert	El Paso
Hamlyn, Dorothy	El Paso
Hamlyn, Richard Louis	El Paso
Hardie, Liddie	El Paso
Harper, Mrs. Estelle	El Paso
Harrel, Christine	El Paso
Harris, Mrs. Esther	El Paso
Harrison, Mrs. Josephine	El Paso
Hart, Mrs. M. Laura	El Paso
Hays, Alice	El Paso
Hays, Eugene	El Paso
Healy, Jack	El Paso
Heffield, Tallulah	El Paso
Heineman, Kenneth	El Paso
Heinzel, Jack	El Paso
Hemley, Allen	El Paso
Hemley, Barbara	El Paso
Hernandez, Tony	El Paso
Hernandez, Fred	El Paso
Herron, Irene	El Paso
Hester, Mrs. Essye	El Paso
Higdon, Therese	El Paso
Hignett, Mrs. Mary L.	El Paso
Hinkle, Mrs. Madge	El Paso
Hines, Elizabeth Ann	El Paso
Hoard, Roy	El Paso
Holcombe, Bob	El Paso
Holcombe, Margie	El Paso
Holguin, Dora	El Paso
Holmes, Mrs. Annie Mary	El Paso
Howard, William	El Paso
Howle, Loyle	El Paso
Hughes, Sue	El Paso
Hunnicut, Bobbie	El Paso
Hunt, Jack	El Paso
Hunt, Mrs. Leola	El Paso
Husbands, Dove	El Paso
Hutchins, Helen	El Paso
Hyland, Eunice	El Paso
Irvin, Hallie	El Paso
Isensee, Marjorie	El Paso
Jackson, Sue	El Paso
Jameson, Mrs. Naomi	El Paso
Johnston, Mrs. Cornelia	El Paso
Jones, Mrs. Elsie	El Paso
Jones, Grayce	El Paso
Jones, J. P.	El Paso
Kahn, Louis	El Paso
Kannady, Jack	Temple
Kelly, Bob	Mexico City, Mexico
Kemp, Betty Jo	El Paso
Kemp, James H.	El Paso
Kendall, Karl	El Paso
Kennedy, Jane	El Paso
Kennedy, Ruth	El Paso
Kerley, Daniel	Ysleta
Key, Oren W.	El Paso
King, Charles D.	El Paso
King, George	Dallas
Kissel, Marianne	El Paso
Klabock, Beatrice	El Paso
Knotts, Margaret	El Paso
Kremith, Betty	El Paso
Kremith, Kenneth	El Paso
Krupp, Carlyn	El Paso
Lambeth, J. D.	El Paso
Lancaster, Jonathon	El Paso
Lanier, Betty	El Paso
La Porte, Mrs. Alma	El Paso
La Roe, Dorothy	El Paso
Lassiter, Virginia	El Paso
Lawless, Raymond	El Paso
Lefkovitz, Mildred	El Paso
Leiper, Mrs. Ruth	El Paso
Leonard, Jeanne Claire	El Paso

Levy, Harold C.	El Paso	Mustain, Mrs. Alice	El Paso
Lickel, William	El Paso	Myers, Alice Jean	Fabens
Lind, Jack	Mexico, D. F.	Narrance, Mrs. Dorothy, ..	El Paso
Liffman, Rolf	El Paso	Nash, Jacqueline	El Paso
Light, Ellen	El Paso	Naylor, James	El Paso
Lind, Mrs. Lillian	El Paso	Neugebauer, Eugene	El Paso
Link, Felice	El Paso	Newman, Frances M.	El Paso
Lizarraga, Romeo	El Paso	Niland, Mrs. Ada	El Paso
Loomis, Mrs. Eliza	El Paso	Noid, Mrs. Lucille	El Paso
Long, Betty Barbara ...	El Paso	Nordwald, Ruth	El Paso
Lord, Warren	El Paso	Norwood, Margaret	El Paso
Lowry, Pat	El Paso	O'Neal, Kermit	El Paso
Lynch, Kevin	El Paso	O'Neill, Susie	El Paso
Lyon, Robert	El Paso	Osborn, Mrs. Cordelia ...	Ysleta
McAdoo, Fay	El Paso	Pajari, Raymond, Brooklyn, N. Y.	
McAllister, Warren	Tuxedo	Paredes, Felipe	El Paso
McCallick, Hugh	El Paso	Passmore, Agnes	El Paso
McCamant, Sue	El Paso	Paul, Bob	El Paso
McCollum, Marguerite ..	El Paso	Pearson, Mrs. Virginia .	El Paso
McConachie, Paul	El Paso	Pell, George	El Paso
McConnell, Gladys E. ...	El Paso	Pennington, Barry ..	Georgetown
McCormack, Ellen T. ...	El Paso	Perez, Porfirio	El Paso
McCutchan, Roy	El Paso	Perez, Soledad	El Paso
McDaniel, Lula	El Paso	Peterson, Dorothea	El Paso
McGurn, Arthur	El Paso	Pfingsten, Mrs. Thelma .	El Paso
McKinney, Mrs. Elizabeth,	El Paso	Phillips, Lillian	El Paso
McKinney, Mrs. Wilmoth,	El Paso	Phillips, Sallie	El Paso
McMillan, Jackle	El Paso	Pickle, Judith	Big Spring
McNail, Elizabeth	El Paso	Pillow, Mrs. Lucille	El Paso
McNeill, Mary Louise ...	El Paso	Porras, Mario	El Paso
McTier, Frank	El Paso	Porter, David	Coleman
MacFarlane, Sheila	El Paso	Foske, Alma	El Paso
Machado, Manuel	El Paso	Poske, Jane	El Paso
Maddox, Maude	El Paso	Preston, Eleanor	El Paso
Maros, Mike	Fabens	Price, Joseph V.	El Paso
Martin, Mrs. Era	El Paso	Price, Owen	Chicago, Ill.
Martin, James R.	El Paso	Putnam, Mrs. Kathryn ..	El Paso
Martin, Margaret	El Paso	Quevedo, Alberto	El Paso
Martin, Mary Alyce	El Paso	Quick, Beverly	El Paso
Martin, Mary Richards ..	El Paso	Quick, Miriam	El Paso
Mason, Helen	El Paso	Ragsdale, Gladys	El Paso
Masten, Mrs. Lois	El Paso	Rainey, Helen	El Paso
Maya, Manuel	El Paso	Rancich, George	Fabens
Mayfield, Geraldine ...	El Paso	Randel, Maggie	El Paso
Mayfield, William	El Paso	Raney, Morris	Temple
Mendoza, J. R., Chihuahua, Mexico		Reed, Joyce Leslie	El Paso
Metcalfe, Juanita	El Paso	Redd, Raymond	El Paso
Miller, Katherine	El Paso	Reid, Mary Lillian	El Paso
Miller, Leone	El Paso	Resley, Mrs. Louise	El Paso
Miller, William E.	El Paso	Reynolds, Melville	El Paso
Miskimins, Harry	El Paso	Rice, Robert	El Paso
Miskimins, Ruth	El Paso	Richardson, Charles	El Paso
Mithoff, Richard	El Paso	Rigdon, Mrs. Dorothy ...	El Paso
Monroe, Donald	El Paso	Rindom, Virgil	El Paso
Montgomery, James W. .	El Paso	Rinehart, Tiffany	El Paso
Mooney, Patricia	Ysleta	Ritter, Robert	El Paso
Moore, Bert C. ...	Doniphan, Mo.	Ritter, William	El Paso
Moore, Harry	El Paso	Roberts, Mildred	
Moore, Richard	El Paso	.....	Zacatecas, Mexico
Morales, Antonio	El Paso	Roberts, Walton	El Paso
More, Mrs. Hazel	El Paso	Robinson, Mrs. Patricia .	El Paso
Moseley, Jane Estelle ...	El Paso	Robinson, Richard	El Paso
Mulcahy, Catherine	El Paso	Roden, Mildred	El Paso
Murphey, Robert	El Paso	Rodgers, Pollard	El Paso

Rodriguez, Mildred	El Paso	Thomas, Louise B.	El Paso
Roman, Jose	El Paso	Thomas, Ted	El Paso
Romo, Estela	El Paso	Thompson, Mrs. Helen	El Paso
Rose, Mrs. Grace	El Paso	Thorne, John	El Paso
Rosenberg, Corrine	El Paso	Threadgill, Mrs. Edythe	El Paso
Roslyn, Margaret	El Paso	Tiller, Mrs. Lela	El Paso
Rouse, Mrs. Marie	El Paso	Tinnin, Leo R.	El Paso
Rowden, Mrs. Dorothy	Fabens	Tinnin, Mrs. Wanga	El Paso
Rush, Mrs. Lucy	El Paso	Tompkins, Mrs. Ruby	El Paso
Salcedo, Gilberto	El Paso	Tracht, Jocelyn	El Paso
Sammer, Mrs. Mary	El Paso	Turner, Mrs. Gladiolus	El Paso
Schneider, Louis	.....	Twining, John	El Paso
.....	Washington, D. C.	Unsell, Virginia	El Paso
Schuck, Doris	El Paso	Valdez, Mrs. Nell	El Paso
Schuck, Louise	El Paso	Vance, Mrs. Mary L.	El Paso
Schwartz, Albert	El Paso	Varner, Mary	El Paso
Scotten, Wilma	El Paso	Vazquez, Amalia	El Paso
Seawell, Mrs. Mildred	El Paso	Vermillion, John	El Paso
Shannon, Brady	.....	Vinson, David	El Paso
.....	Elephant Butte, N. M.	Waide, Mrs. Roxye	El Paso
Shannon, Mrs. Jennie	El Paso	Walker, Lytle	El Paso
Sherrell, Marjorie	El Paso	Watson, Mrs. Mary	El Paso
Sikes, Dorothy	Center Point	Webel, Herman	El Paso
Silva, Hector	San Antonio	Wehner, Bill	El Paso
Silva, Rcy	San Antonio	Wells, Lots	El Paso
Simpson, Helen Ross	Lamesa	Wells, Louise	El Paso
Simpson, Nell Frances	Lamesa	Whitaker, Mary Elizabeth	El Paso
Smith, Pauline	El Paso	White, Betsy	El Paso
Smith, Sara	El Paso	Whitlock, Robert	El Paso
Soltner, Lucille	El Paso	Whittington, Jess	El Paso
Soveck, Mae	El Paso	Wiggs, Mrs. Ethel	El Paso
Spar, Morton	Miami, Florida	Wiley, Howard	El Paso
Sparks, Betty Ann	El Paso	Williams, Athalie Nell	El Paso
Spencer, Trixy	Ysleta	Williams, Charlie, Tonkawa, Okla.	.....
Spruill, Mrs. Hattie	El Paso	Williams, George	Marfa
Stark, Betty	El Paso	Williams, J. F.	El Paso
Stevens, Margaret	El Paso	Willie, Winifred	El Paso
Stiles, Ray	El Paso	Willingham, Drew	El Paso
Stoker, Mrs. Eryline	El Paso	Willis, Mrs. P. M.	El Paso
Stone, Mrs. Thelma	El Paso	Wilmoth, Wilma Anne	El Paso
Straight, Hazel	El Paso	Wilson, Gordon	El Paso
Strandberg, Florence	El Paso	Wilson, Jane	El Paso
Stringer, William	El Paso	Wilson, Mary	El Paso
Stroede, Mrs. Bess	El Paso	Wilson, Ned	El Paso
Stull, Charles	Lima, Ohio	Wiser, Ortella	El Paso
Sullivan, Patrick G.	El Paso	Womack, Laetitia	El Paso
Szrulyovics, Ernest	El Paso	Womack, Lenora	El Paso
Talley, Ruth	El Paso	Worthington, Mrs. E.	El Paso
Tappan, David	El Paso	Wright, Margaret	Terrell
Taylor, C. Allen	Gainesville	Wright, Mary E., Primrose, Neb.	.....
Teague, Mrs. Mildred	El Paso	Young, Mrs. Elmore	Canutillo
Terrazas, Nicholas	El Paso	Zlabovsky, Julia	El Paso
Thomas, Mrs. Inez	El Paso	Zumwalt, Mrs. Eva	El Paso

STATISTICAL SUMMARIES

STUDENTS

	Long Session, 1937-38			Long Session, 1938-39		
	Men	Women	Total	Men	Women	Total
ENGINEERING :						
Postgraduates	1	0	1	2	0	2
Seniors	13	0	13	31	0	31
Juniors	23	0	23	29	0	29
Sophcmores	47	0	47	77	0	77
Freshmen	166	0	166	140	0	140
Non-credits	0	0	0	0	0	0
Total	250	0	250	279	0	279
ACADEMIC:						
Postgraduates	10	28	38	6	15	21
Seniors	20	45	65	34	91	125
Juniors	36	66	102	58	66	124
Sophomores	70	64	134	78	97	175
Freshmen	144	152	296	163	183	346
Non-credits	51	16	67	27	11	38
Total	331	371	702	366	463	829
Total Individual Students	581	371	952	645	463	1,108

SUMMER SESSION

	1938			1939		
	Men	Women	Total	Men	Women	Total
Students registered in						
the first term	171	207	378	154	247	401
Students registered in						
the second term	134	165	299	140	154	294
Total	305	372	677	294	401	695
Total Individual Students in						
the Summer Session ..	199	254	453	195	282	477

INDEX

	Page		Page
Absences		Conferred, 1939	102
Authorized	36	Requirement of Bachelor of	
Because of Late Registration	36	Arts	48
From Quizzes	36	Requirement for Bachelor of	
From Semester Examinations	36	Science in Mining Engineering	44
When on Special Observation	36	Requirement for Degree of	
Penalty for	36	Mining Engineering	44
Reporting	36	Deposits	18
Academic Loan Fund	20	Determinations and Tests	16
Accredited Schools, Admission		Discipline	25
of Graduates of	30	Dormitories	14, 19
Activities, Regulations Affecting		Drawing, Courses in	78
Students	22	Dropping Courses	35
Adding Courses	35	Dates for	35
Dates for	6	Economics and Business Administration	
Administrative Officers	7	Courses in	66
Admission		Major in Economics	53
Control Over	28	Major in Business Administration	52
Examinations for	36	Education, Courses in	73
General Requirements	28	Elementary	74
Methods of Obtaining	30	General	73
Removal of Conditions	32	Physical	76
Requirements for Engineering	33	Engineering	
Requirements for Academic		Courses in	77
Students	29	Uniform Freshman Year in	61
Students from Other Colleges	32	Engineers Loan Fund	20
Subjects and Units Accepted		English	
for	29	Courses in	79
Amount of Work Permitted	35	Major in	55
Analyses and Assays	16	Examinations	
Aptitude Tests	30	Absence from Semester	37
Assays and Analyses	16	Administration of	31
Athletics	25	Advanced standing	37
Biological Sciences, Courses in	63	Postponed	37
Biology, Courses in	63	Regulations Governing Conduct	25
Board and Rooms	14, 19	Removal of Condition	37
Botany, Courses in	64	Semester	36
Buildings and Grounds	12	Expenses	17
Bulletin Boards, Students Held		Expulsion, Disciplinary	27
Responsible	36	Ex-Students Association Memorial	20
Business Administration, Economics		Loan Fund	20
and, Courses in	66	Faculty	7
Calendar	6	Failure	
Certificates, State Teachers	62	Higher Work After	38
Checks, Bad	22	Return After	42
Chemistry, Courses in	65	Fees	
Classification of Students	39	Exemption of Ex-Service	19
Conditions, Admission, Removal		Men	19
of	32	Laboratory	18
Condition Examinations, Removal		Tuition	
of	37	Resident Students	17
Conduct	25	Non-Resident Students	17
Conferences	41	Student Association	19
Constitutions, Study of, Required	44	Non-Credit	19
Courses		Field Trips	
Adding and Dropping of	35	Geology	85
Announcement of	63	Mining	93
Definition of	34	Metallurgy	95
Graduate	47	Final Trial	42
Notation	34	Absences, When on	36, 42
Rank and Value of	34	French, Courses in	95
Dead Week	36	Geology, Courses in	84
Debts	27	German, Courses in	95
Degrees		Good Standing	
Catalog Governing	48	Restoration to	41
Repetition of	39	Government, Courses in	85

	Page		Page
Grades	37	Physical Welfare	22
Effect of Grade of E	38	Physics, Courses in	96
Incomplete	38	Policies, General Statement of ..	15
Grounds, Building and	12	Public Speaking, Courses in ..	83
Guidance, Student	22	Publications, Student	23
Hazing		Probation, Disciplinary	26
Penalty for	27	Psychology, Courses in	100
Pledge Against	27	Quizzes, Absent from	36
Health		Regents, Board of	5
Officer	22	Registration	
Service	22	Absences Because of Late ..	36
History		Dates	34
Courses in	85	Late	34
Of the College	11	Regulations	
Major in	56	Affecting Student Life ...	22
Honors	39	Athletic	25
Incomplete		Governing Conduct of Ex-	
Grade of	38	aminations	25
Individual Approval, Admis-		Scholastic	34
sion by	31	Requirements for Degrees,	
Information, General	11	Certificates	44
Instruction, Courses of	63	Repetition of Courses	39
Laboratory		Reports	39
Deposits	18	Restoration to Good Standing	41
Fees	18	Return After Failure	42
Journalism, Courses in	82	Robert E. Lee Loan Fund ..	21
Language		Rooms, Board and	14, 19
Major in	57	Scholastic Regulations	34
Modern	95	Science, Major in	60
Late Registration	34	Self-Help, Opportunities for ..	20
Law, Preparation for	61	Sociology, Courses in	88
Lectures, Special	16	Spanish-American Loan Fund	21
Library	12	Spanish, Courses in	95
Loans, Funds	20	Special Observation	41
Location of the College	11	Absences When on	36, 42
Mathematics, Courses in	89	Specimens, Rocks, Mineral,	
Majors in		Fossils, Ores, Geological ...	16
Economics	53	Standard of Work Required	40
Business Administration ..	52	Statistical Summaries	117
Education	54	Student	
English	55	Activities Regulations for	
History	56	Non-Athletic Extra-Curric-	
Language	57	ulum	23
Music	58	Association Fee	19
Science	60	Classification of	39
Medicine, Preparation for ..	61	Guidance	22
Metallurgy		List for 1938-1939	104
Courses in	93	Suspension Disciplinary	27
Option	46	Tardiness	36
Mining		Teachers Certificates	62
Courses in	92	Tests	
Geology Option	46	Determinations and	16
Option	45	Metallurgical	17
Minimum of Work Required ..	40	Tuition Fees	
Museum	13	Resident Students	17
Music, Courses in	98	Non-Resident Students	17
Options, Requirements for En-		Uncompleted Work	38
gineers		Vaccination	
Metallurgy	46	Certificate Required	28
Mining	45	Examination for	22
Mining Geology	46	Visitors (Non-Credit)	
Organizations		Fee	19
List of Student General ...	23	Permission for	34
List of Student Social	23	Welfare, Physical	22
Philosophy		Women's Auxiliary Loan Fund	21
Courses in	100	Work	
Physical Education, Courses		Amount of, Permitted ...	35
in	76	Minimum to Be Passed	40
Physical Examination for		Standards Required	40
Freshmen	22	Uncompleted	38
Physical Training Required of		Zoology, Courses in	64
Freshmen	22		

Handwritten text at the top right corner, possibly a date or page number.

Handwritten text in the upper right section, possibly a title or header.

Handwritten text in the middle right section, possibly a body of text.

Handwritten text in the lower middle right section, possibly a body of text.

Handwritten text in the bottom right section, possibly a body of text.

Handwritten text at the bottom right corner, possibly a signature or page number.

1

2

3

4

5

6

