

THE ENTRANCE REQUIREMENTS HAVE BEEN RAISED.

The new requirements will be effective for engineering students in September, 1910; for agricultural students in September, 1911. See page 17.

BULLETIN OF THE
AGRICULTURAL AND MECHANICAL COLLEGE
OF TEXAS

VOL. VII

FEBRUARY, 1910

NO. 7



THIRTY-FOURTH
ANNUAL CATALOGUE
SESSION 1909-10

Entered February 27, 1904, at
COLLEGE STATION, TEXAS,
as second-class matter, under act of Congress of July 16, 1894.



AUSTIN, TEXAS
VON BOECKMANN-JONES CO., PRINTERS
1910

CALENDAR.

1910.							1911.							1912.													
July.							January.							July.							January.						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
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3	4	5	6	7	8	9	8	9	10	11	12	13	14	2	3	4	5	6	7	8	7	8	9	10	11	12	13
10	11	12	13	14	15	16	15	16	17	18	19	20	21	9	10	11	12	13	14	15	14	15	16	17	18	19	20
17	18	19	20	21	22	23	22	23	24	25	26	27	28	16	17	18	19	20	21	22	21	22	23	24	25	26	27
24	25	26	27	28	29	30	29	30	31	...	...	...	...	23	24	25	26	27	28	29	28	29	30	31	...	...	...
31	30	31	
August.							February.							August.							February.						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
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7	8	9	10	11	12	13	5	6	7	8	9	10	11	6	7	8	9	10	11	12	4	5	6	7	8	9	10
14	15	16	17	18	19	20	12	13	14	15	16	17	18	13	14	15	16	17	18	19	11	12	13	14	15	16	17
21	22	23	24	25	26	27	19	20	21	22	23	24	25	20	21	22	23	24	25	26	18	19	20	21	22	23	24
28	29	30	31	26	27	28	27	28	29	30	31	25	26	27	28	29
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September.							March.							September.							March.						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
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4	5	6	7	8	9	10	5	6	7	8	9	10	11	3	4	5	6	7	8	9	3	4	5	6	7	8	9
11	12	13	14	15	16	17	12	13	14	15	16	17	18	10	11	12	13	14	15	16	10	11	12	13	14	15	16
18	19	20	21	22	23	24	19	20	21	22	23	24	25	17	18	19	20	21	22	23	17	18	19	20	21	22	23
25	26	27	28	29	30	...	26	27	28	29	30	31	...	24	25	26	27	28	29	30	24	25	26	27	28	29	30
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October.							April.							October.							April.						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
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9	10	11	12	13	14	15	9	10	11	12	13	14	15	15	16	17	18	19	20	21	14	15	16	17	18	19	20
16	17	18	19	20	21	22	16	17	18	19	20	21	22	22	23	24	25	26	27	28	21	22	23	24	25	26	27
23	24	25	26	27	28	29	23	24	25	26	27	28	29	29	30	31	28	29	30	
30	31	30	
November.							May.							November.							May.						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
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6	7	8	9	10	11	12	7	8	9	10	11	12	13	5	6	7	8	9	10	11	5	6	7	8	9	10	11
13	14	15	16	17	18	19	14	15	16	17	18	19	20	12	13	14	15	16	17	18	12	13	14	15	16	17	18
20	21	22	23	24	25	26	21	22	23	24	25	26	27	19	20	21	22	23	24	25	19	20	21	22	23	24	25
27	28	29	30	28	29	30	31	26	27	28	29	30	26	27	28	29	30	31	...
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December.							June.							December.							June.						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
...	1	2	3	1	2	3	1	2	1	8
4	5	6	7	8	9	10	4	5	6	7	8	9	10	3	4	5	6	7	8	9	2	3	4	5	6	7	8
11	12	13	14	15	16	17	11	12	13	14	15	16	17	10	11	12	13	14	15	16	9	10	11	12	13	14	15
18	19	20	21	22	23	24	18	19	20	21	22	23	24	17	18	19	20	21	22	23	16	17	18	19	20	21	22
25	26	27	28	29	30	31	25	26	27	28	29	30	...	24	25	26	27	28	29	30	23	24	25	26	27	28	29
...	

COLLEGE CALENDAR.

1910.

Fall Term begins Tuesday, September 27.
Registration of new students, September 27, 28, 29.
Entrance Examinations, September 28, 29.
Registration of old students, September 29.
Examinations for removal of deficiencies, September 29, 30, October 1.
Recitations begin September 30.
National Holiday, Thanksgiving Day.
Christmas Holidays begin December 23.

1911.

Winter Term begins Wednesday, January 4.
National Holiday, February 22.
State Holiday, March 2.
Spring Term begins Monday, March 20.
State Holiday, April 21.
Commencement Sermon, Sunday, June 11.
Exhibition of Departments and of Work of Students, June 12.
Commencement Day, June 13.

F. C. BOLTON, B. S.,
Professor of Electrical Engineering.

J. C. BURNS, B. S.,
Acting Professor of Animal Husbandry.

J. W. KIDD, B. S., E. E.,
Associate Professor of Physics.

R. F. SMITH,
Associate Professor of Mathematics.

J. A. LOMAX, A. M.,
Associate Professor of English.

OTHER INSTRUCTORS.

G. S. FRAPS, Ph. D.,
Associate Professor of Agricultural Chemistry.

R. H. LEAVELL, A. B.,
Associate Professor of Economics and History.

R. P. MARSTELLER, D. V. M.,
Associate Professor of Veterinary Science.

A. MITCHELL, B. C. E.,
Assistant Professor of Drawing.

J. E. LEAR, B. S.,
Assistant Professor of Electrical Engineering.

J. S. DEAN, B. S.,
Assistant Professor of Drawing.

F. H. MACDOUGALL, M. A., Ph. D.,
Assistant Professor of Chemistry.

H. L. MCKNIGHT,
Assistant Professor of Agriculture.

R. J. POTTS, A. B., B. S., C. E.,
Assistant Professor of Civil Engineering.

ISAAC ALEXANDER,
Lecturer on Texas History.

W. H. THOMAS, B. Lit.,
Instructor in English.

J. L. THOMAS, B. S.,
Instructor in Dairying.

E. SCHOLL, B. S.,
Instructor in Botany and Zoology.

J. W. MITCHELL, A. B.,
Instructor in Mathematics.

C. S. TATUM, B. S.,
Instructor in Textile Engineering.

J. A. HERRINGTON, B. S.,
Instructor in Wood Work.

O. B. WOOTEN, B. S., E. E.,
Instructor in Physics.

J. N. MICHIE, B. A., B. S.,
Instructor in Mathematics.

J. D. GARNER, A. B., LL. B.,
Instructor in Mathematics.

D. C. JONES, A. B.,
Instructor in Mathematics.

S. E. HERRINGTON, B. S.,
Instructor in Mechanical Engineering, Superintendent of Shops.

L. L. CHAPPELLE,
Instructor in Forge Work.

G. C. EMBRY, B. L.,
Instructor in English.

ROY W. FOLLETT, A. B.,
Instructor in English.

G. A. GEIST, B. S.,
Instructor in Architectural Engineering and Drawing.

C. L. WIGNALL, B. S.,
Instructor in Architectural Engineering and Drawing.

D. C. JOHNSON, B. A.,
Instructor in Physics.

D. T. GRISWOLD, B. S. A.,
Instructor in Animal Husbandry.

CLARENCE BRITEN,
Instructor in English.

IRBY C. NICHOLS, B. S., M. A.,
Instructor in Mathematics.

E. A. MILLER, B. S.,
Instructor in Horticulture.

W. E. CLARK,
Assistant in Shops.

Assistant in Chemistry.
W. P. NELSON,

OFFICERS.

ISAAC ALEXANDER,
Chaplain.

J. R. LAY, M. D.,
Surgeon.

J. M. CARSON, JR.,
Treasurer.

A. B. WILCOX,
Secretary.

JAMES HAYS QUARLES,
Librarian.

C. H. ALVORD, B. S.,
Superintendent of Farm.

C. B. MORAN,
Physical Director.

GEORGE GRUPE, B. S.,
Superintendent of Steam Plant.

C. K. STANDISH.
Machinist.

G. S. FRAPS, Ph. D.,
State Chemist.

W. NEWELL, M. S.,
State Entomologist.

S. E. ASBURY, M. S.,
Assistant State Chemist.

E. C. CARLYLE, B. S.,

P. L. OGIER, B. S.,

J. B. KELLY, B. A.,

J. T. AUTEN,

Assistant Chemists.

STATION STAFF.

H. H. HARRINGTON, M. S., LL. D.,
Director.

W. C. WELBORN,
Vice-Director, Agriculturist.

J. W. CARSON,
Assistant to the Director.

M. FRANCIS, D. V. M.,
Veterinarian.

G. S. FRAPS, Ph. D.,
Chemist.

J. C. BURNS, B. S.,
Animal Husbandry.

H. NESS, M. S.,
Horticulturist.

W. NEWELL,
Entomologist.

RAYMOND H. POND, Ph. D.,
Plant Pathologist.

H. L. MCKNIGHT,
Assistant Agriculturist.

N. C. HAMNER,
Assistant Chemist.

J. B. RATHER, B. S.,
Assistant Chemist.

A. B. CONNOR, B. S.,
Superintendent Co-operative Station, Chillicothe.

J. L. WELCH,
Superintendent Sub-Station, Troupe.

A. T. POTTS, B. S.,
Superintendent Sub-Station, Beeville,

W. S. HOTCHKISS,
Superintendent Sub-Station, Lubbock.

J. T. CRUSE, B. S.,
Superintendent Feeding Station, Fort Worth.

OFFICERS FEED CONTROL.

H. H. HARRINGTON, M. S., LL. D.,
Director.

J. W. CARSON,
Assistant to the Director, State Inspector.

C. W. CRISLER,
Chief Clerk.

LAMAR McLENNAN, B. S.,

J. H. ROGERS,

J. W. MURPHY,

GUS VALKUS,

Deputy Inspectors.

HISTORICAL SKETCH.

ORIGIN.

The Agricultural and Mechanical College of Texas, like the land grant institutions in the other States of the Union, owes its origin to an act of Congress approved July 2, 1862. This act donated public lands to the several States and Territories which might provide colleges for the benefit of agriculture and the mechanic arts, and directed the Secretary of the Interior to issue land scrip to the States in which there was not the requisite quantity of public land. The act further directed that the money derived from this source should constitute a perpetual fund, the principal of which should remain forever undiminished, and the interest of which should be inviolably appropriated by each State to the endowment, support and maintenance of at least one technological college, whose leading object should be, without excluding other scientific and classical studies, and including military tactics, to teach branches of learning pertaining to agriculture and the mechanic arts, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life. It was further provided that the provisions of the act should be formally accepted by the State Legislature. By joint resolution approved November 1, 1871, the Legislature of Texas accepted the provisions of the Congressional legislation, and accordingly there was issued to Texas scrip for 180,000 acres of public land, which was sold for \$174,000. This amount was invested in Texas 7 per cent gold frontier bonds. At the time of the opening of the College there was an addition to the fund of accrued interest amounting to \$35,000, which was invested in 6 per cent State bonds.

In an act approved April 17, 1871, the Legislature provided for the establishment of the Agricultural and Mechanical College. By the terms of this act and later acts, appropriations aggregating \$187,000 were made for buildings and equipment. A commission to locate the College was created by the Legislature. After careful investigation, the commission accepted the proposition of the citizens of Brazos county, and located the institution on a tract of 2416 acres of land in that county. Finally, the constitutional convention of 1876 constituted the College a branch of the University of Texas, and, in accordance with the terms of the Federal legislation, designated it as an institution for instruction in agriculture and the mechanic arts and the natural sciences connected therewith. The convention further provided that

the Legislature should have the right to levy taxes for the maintenance and support of the Agricultural and Mechanical College.

The College was formally opened for the reception of students October 4, 1876.

GROWTH OF THE COLLEGE.

Since 1876, by means of financial aid voted by Congress and of appropriations made by the State Legislature, there has been developed a considerable foundation at the College for instruction, for investigation, and for experiment. In 1887 Congress voted the sum of \$15,000 to each State for the purpose of establishing experiment stations to conduct original research on the physiology of plants and animals, the diseases of plants and animals, the chemical composition of useful plants, the advantages of rotation of crops, climatology, analyses of soils and waters, the composition of manures, the value of grasses and forage, the composition and digestibility of the different kinds of food for domestic animals, the scientific and economic questions involved in the production of butter and cheese, and such other researches and experiments in agriculture as might be deemed advisable.

In 1890 Congress further appropriated the sum of \$15,000 with an annual increase of \$1000 for ten years, and provided that the amount appropriated should be equitably divided between the Agricultural and Mechanical College and an institution intended for the technical education of colored students.

In 1895 the Legislature made provision for an experiment station at Beeville, and in 1900 for a second experiment station at Troupe.

At College Station there are six dormitories, a main building for offices and section rooms, an agricultural and horticultural building, a chemical-veterinary building, a mechanical engineering building, a textile engineering building, a hospital, a veterinary hospital, a farm implement building, a natatorium, a water, ice and light plant, a laundry, a sewerage system, barns and outhouses, and residences for instructors and officers, with a total valuation of approximately \$600,000.

GOVERNMENT.

The government of the College is vested in a Board of eight directors, appointed by the Governor for a term of two years. One of the directors is the Commissioner of Agriculture, who serves on the Board by virtue of his office.

The immediate regulation and direction of the affairs of the College are delegated by the Board of Directors to the President and Faculty.

DEPARTMENTS.

The College now has the following departments in operation:

Agriculture.

Animal Husbandry.

Architectural Engineering and Drawing.

Botany and Zoology.

Chemistry and Mineralogy.

Civil Engineering.

Electrical Engineering.

English.

History.

Horticulture.

Languages.

Mathematics.

Mechanical Engineering.

Military Science.

Physics.

Textile Engineering.

Veterinary Science.

OBJECTS.

The objects of the College are indicated in the provisions of the laws of Congress and of the State Constitution and statutes. Briefly stated, the College was established for the purpose of furnishing an opportunity to the young men of Texas to qualify themselves to do expert work in all industrial pursuits and professions; to furnish information of a scientific and practical character to the people of the State actually engaged in farming, in horticulture, in dairying, and in stock raising, and in every possible way to advance all industrial interests of the State. To meet the urgent demand for men of industrial skill, the work of the College has been so planned as to train men in the scientific principles of agriculture, horticulture, cattle raising and related pursuits, and in chemical, civil, electrical, mechanical and textile engineering, drawing and architecture. As rapidly as the funds of the College will allow, provision will be made for expert industrial work in all other directions.

The work of the College in behalf of those actually engaged in industrial pursuits is carried on through the experiment stations, including the main station established at College Station, and the two sub-stations at Beeville and Troupe, through the departments of Agriculture, Animal Husbandry, Chemistry and Mineralogy, Entomology, Horticulture and Veterinary Science. The State Chemist does a large amount of fertilizer, water and mineral analyzing for individuals throughout the State. Through the experiment stations information is furnished to

farmers and others in the form of bulletins and through press notices and correspondence. At present there are 35,000 farmers whose names appear on the regular mailing list of the experiment station. As opportunity permits, the members of the stations and agricultural staffs visit different sections of the State for the purpose of giving institute lectures to various associations and gatherings of agriculturists. It will be seen that it is by no means the exclusive mission of the College to furnish instruction to the six or eight hundred students who matriculate in the institution. Its constituency embraces, in addition to the student body, twenty-five thousand men actually engaged in industry; and a much wider constituency than this is reached through the press, the correspondence and the lectures.

The law requires the President to see that every student takes an industrial course; care is taken, however, not to omit the more general forms of knowledge which are essential to a liberal education. Only by laying a strong foundation in the field of general science and literature can men be turned out with adequate preparation to take their proper places as directors in industrial advancement.

The military feature, made necessary by the acceptance of the Federal grants, is an important adjunct to the other work of the College. It is conducive to health and to bodily grace and strength, and cultivates habits of strict attention and of obedience, punctuality, neatness and regularity.

METHOD AND SCOPE OF INSTRUCTION.

The several courses of instruction are designed in accordance with the above outline of objects and policy. In all of them the fundamental idea is education in practical science, particularly in agriculture and in engineering. With this idea in view, instruction is given in English, history, economics, mathematics, modern languages, physics, chemistry and in other studies which lie at the foundation of a sound education and furnish the best preparation for the more technical studies of the several courses. Instruction is given by the use of text-books, by lectures and recitations; also by practice in the shop, field, laboratory, and drawing room. These practical exercises have a high educational value, and serve a useful purpose in fixing and rendering clear the ideas presented in the class room; they have also a practical value, for they are, in great measure, examples of just such problems as the scientific agriculturist or engineer will encounter in the pursuit of his calling. For convenience of instruction, the classes are subdivided into sections of suitable size. Unannounced written exercises and examinations are given at the discretion of instructors. Regular written examinations are held at the end of each term.

DISCIPLINE.

By reason of its isolated location the College is able to exercise effective oversight over the student body. The authorities do not undertake to restrain the liberty of the student more than is necessary for the securing of good results in scholarship and conduct. Each student is expected at all times to conduct himself as a gentleman, and to attend promptly and faithfully to all his duties.

Students are not allowed to leave the College grounds, either to visit neighboring towns for brief periods, or to visit home for longer periods, without first securing permits from the Commandant of Cadets or from the President. Whenever any student has reasonable grounds for his application, such permits are granted.

The College is not a reformatory. It encourages the attendance of young men who have a serious purpose and who really wish to secure a thorough technological training. The Faculty will do everything in its power to assist every cadet, both in securing a sound education and in forming correct habits, but will not tolerate the presence of young men who evince a determination not to study and not to comply with reasonable regulations.

Students who fail to apply themselves or to conduct themselves properly will first be warned and may be put upon probation. In each case their parents will be notified of their shortcomings. If, after full warning to the cadet and to his parents, improvement does not take place, the Faculty may suspend the cadet for a longer or shorter time, or may dismiss him at their discretion.

In order to keep parents systematically informed concerning the progress of their sons, reports, showing class standing and records of conduct, are sent out from the Dean's office at the end of each term.

LOCATION.

The College is situated at College Station, in the county of Brazos, and is 350 feet above sea level. The Houston & Texas Central and the International & Great Northern Railroads run through the grounds, daily trains stopping at the stations, about 650 yards from the main building. Students and visitors are advised to take trains arriving in the daytime.

POSTOFFICE.

College Station is a money order postoffice. Letters intended for persons at the College should not be directed to Bryan. At College Station there are telegraph and express offices.

HEALTH.

The buildings of the College are situated on the crest of a wide divide, with sufficient slope in every direction to insure proper drainage. The health of the student body, as shown by the daily records of the institution, is all that could be expected at any location in the State.

The water furnished is from a well 600 feet deep. This depth insures its purity and prevents contamination.

The barracks are inspected daily, and are kept neat and clean throughout. The rooms are well lighted and comfortable.

Drill, shop and field practice, work and outdoor athletic sports furnish sufficient and varied exercise. Furthermore, they contribute very much to the maintenance of health and proper physical development.

The health of the student body is a very important factor in the amount and efficiency of the work done. There is no endemic disease at the College; most of the sickness is the result of indiscretion on the part of the student, or is due to the introduction of some mild epidemic disease, such as measles or mumps.

HOSPITAL.

The hospital is a two-story frame structure. There are three large wards with bath, toilet rooms, etc., capable of accommodating about thirty-five patients, with several small rooms for the isolation of patients suffering from any common epidemic disease, such as mumps or measles. The sick in the hospital are carefully looked after by a competent trained nurse under the direction of an efficient surgeon. The diet of sick students is a matter of no little concern, and great care is taken to supply such nourishment as is best adapted to the condition of each patient.

INFORMATION CONCERNING ADMISSION.

BEGINNING OF THE SESSION.

The thirty-fifth annual session will open Tuesday, September 27, 1910, and will close Tuesday, June 13, 1911.

Intending students should write to A. B. Wilcox, Secretary, for application blanks.

REQUIREMENTS FOR ADMISSION.

To enter the College the applicant must be at least sixteen years old and physically able to perform the duties of a cadet. He must present a satisfactory certificate of good moral character from his last instructor. If he comes from another college he must present a certificate showing that he was in good standing when he left it. He must be free from contagious or infectious disease.

VACCINATION.

The applicant is advised to bring with him a certificate showing that he has been vaccinated at a date sufficiently recent to insure protection against smallpox; those who do not present such certificates must be vaccinated upon entrance.

Candidates who have complied with the above requirements may be admitted to the Freshman class in one of three ways: (a) by examination, (b) on diploma from an affiliated school, (c) on special approval.

A. ADMISSION BY EXAMINATION.

Candidates for admission to the Freshman class will be examined in the subjects mentioned below. The treatment given in the text-books indicated will suffice for the purpose of these examinations.

For admission to the Sub-freshman class, see page 118.

1. Algebra to quadratics, including the fundamental operations, factoring, highest common factor, lowest common multiple, fractions, equations of the first degree with one or more unknown quantities, involution, evolution, theory of exponents, radicals, equations containing radicals. Complete Secondary Algebra (*Fisher and Schwatt*).

2. Advanced English Grammar and Composition (*Maxwell*).

3. History of the United States (*Mrs. Lee*).

4. Ancient History, as treated in *Meyer's* General History.

For engineering students the examination in Algebra will extend through quadratics in one unknown.

Specimen entrance examination questions may be found in the ~~required~~ ^{Plane Geometry will also be required} appendix.

SCHEDULE OF ENTRANCE EXAMINATIONS.**FOR ADMISSION TO THE FRESHMAN CLASS.**

Wednesday, September 28.

Algebra, 8 a. m.

English, 2 p. m.

Thursday, September 29.

Geometry, 8 a. m.

History, 2 p. m.

FOR ADMISSION TO THE SOPHOMORE CLASS.

Wednesday, September 28.

Algebra, 8 a. m.

Geometry, 10:30 a. m.

History, 2 p. m.

Thursday, September 29.

English, 8 a. m.

Physics, 2 p. m.

B. ADMISSION ON DIPLOMA.

Graduates of affiliated schools are admitted to the Freshman class at the beginning of the session without examination. For list of affiliated schools, see page 132.

C. ADMISSION ON SPECIAL APPROVAL.

Young men over eighteen years of age, on presentation of certificates from their last instructors that they have satisfactorily completed the required subjects, may, with the consent of the Dean and professors concerned, be admitted without examination. Such certificates should state how far the several subjects were pursued and what text-books were used.

ADVANCED STANDING.

Applicants for advanced standing and those who come after the time set for the entrance examinations will be examined also upon the work already gone over by the class they propose to enter.

MATRICULATION.

Upon arrival at the College, young men intending to enter will report at once to the Commandant for assignment to company and quarters.

Tuesday, Wednesday and Thursday, September 27, 28 and 29, will be devoted to the registration of new students; Thursday, September 29, to the registration of old students. Recitations will begin Friday, September 30.

EXPENSES FOR THE SESSION.

The fixed charges are:

Trust fund, payable on entrance.....	\$ 5 00
Incidental fee, payable on entrance.....	5 00
Medical fee, payable on entrance.....	8 00
Maintenance, Fall Term, payable on entrance.....	50 00
Maintenance, Winter Term, payable January 4.....	50 00
Maintenance, Spring Term, payable March 20.....	50 00
	<hr/>
	168 00

Other necessary expenses are:

Uniform, payable on entrance, about.....	30 00
Books from \$15 to.....	20 00
Laboratory fees, from \$1.00 to.....	5 00
	<hr/>
Total.....	\$223 00

For Freshman students in the Engineering courses, drawing instruments, about\$ 10 00

The trust fund is to pay for property damaged or destroyed, and will be returned to the parent if there is no charge of this kind against the student.

The incidental fee is used for sundry incidental expenses.

The medical fee covers the professional services of the College physician and of the hospital staff.

Incidental and medical fees will in no case be refunded.

Maintenance includes board, fuel, washing, lights, room rent, single bedsteads, mattresses, tables, washstands, chairs.

Each student is required to keep on hand a supply of bed clothing for single beds, towels, etc. For winter he should provide himself with an overcoat and mackintosh.

Students are required to take their meals at the Mess Hall.

Payment for each term must be made in advance. A student entering during a term will be charged maintenance for the remainder of that term only.

A student once entering for a term, and having paid for that term, or the balance of it, forfeits all claim to said payment in case of voluntary withdrawal from the College before the expiration of said term, except in case of sickness disqualifying him for the discharge of his duties for the rest of the term. When such sickness takes place at the College, it must be attested by the College Physician before the student can receive the balance of his maintenance fund.

The expenses of a graduate student are \$5.00 for material used in laboratories and practical work, and \$8.00 for medical fee, with charge for maintenance as above. Day students pay \$18, as trust fund, incidental fee, and medical fee, as above.

UNIFORM.

Every cadet must keep on hand in good condition: 1 regulation blouse, 2 pairs regulation gray trousers, 1 pair regulation white trousers, 1 regulation cap, 1 regulation hat, 6 regulation shirts, 6 standing white collars, 6 turned down white collars, 1 pair black shoes, 4 pairs white gloves, 1 regulation tie, 1 regulation belt, and an ample supply of underwear.

In addition, each student must have, for shop and field practice, a working suit of drilling, which costs from \$1.50 to \$2.50.

The blouses, trousers, caps and hats are made by contract, and students are required to purchase from the contractors, in order that uniformity may be secured in the cut and quality of the clothing, and that parents may be protected from imposition by irresponsible persons, and may secure the best material for the lowest price. All parts of the equipment are carefully inspected by the Commandant of Cadets, in order that good fits and satisfactory materials may be secured.

By means of the contract system not only is there a saving effected, but there is also furnished a guarantee that the materials shall be of the requisite pattern and quality. For the efficient enforcement of the arrangements entered into, the College authorities require that each student make his purchases through the machinery provided at the College, and that a deposit sufficient to cover the purchase price of the equipment be placed in the hands of the Treasurer when the cadet matriculates. No suit will be ordered until such deposit has been made.

The other regulation articles may be purchased at the exchange store mentioned below.

It should be distinctly realized that this clothing is not an additional expense, but that it is the cheapest clothing that cadets can wear. It is very neat in appearance, and is serviceable and durable.

CADET EXCHANGE.—BOOKS AND OTHER SUPPLIES.

The College runs an exchange store for the purpose of supplying necessary articles to students at the lowest possible cost. The store carries in stock, books, stationery, drawing instruments, regulation articles of the uniform, toilet articles, etc. These goods are sold at prices just sufficient to cover cost and operating expenses.

Text-books cost from \$15 to \$20 a year; drawing instruments for

Freshmen in the Engineering courses about \$10. Laboratory fees are from \$2.00 to \$5.00.

STUDENT LABOR.

The Legislature has provided a fund by which a limited number of industrious young men may defray a part of their expenses by working for the College at such times as their regular duties will permit.

The rate of pay is made to depend upon the character of the work, and the manner in which it is performed. A student should not count upon earning more than \$40 a session.

EXPULSIONS.

At a joint session of the Board of Regents of the University of Texas and the Board of Directors of the Agricultural and Mechanical College, held at College Station, Texas, from June 30 to July 1, 1896, the following order was made:

“It is ordered, that hereafter, when any student shall be dismissed or expelled from either of the branches of the University of Texas on account of any immoral or other conduct which shall render him an unfit character to be matriculated in any of such branches, it shall thereupon be the duty of the branch so expelling or dismissing such student to immediately notify the other branches of their action, whereupon such other branches shall refuse to receive such student for matriculation, or even for examination, should he apply therefor, until the branch which has so expelled or dismissed him has rescinded or reconsidered its former action, and recommended such student for admission into such other branch at which he may apply.”

COURSES OF STUDY.

There are eight regular courses, extending through four years, and leading to the degree of Bachelor of Science, the particular course pursued being specified in the diploma.

- I. Course in Agriculture. Page 23.
- III. Course in Mechanical Engineering. Page 78.
- IV. Course in Civil Engineering. Page 64.
- V. Course in Electrical Engineering. Page 71.
- VI. Course in Textile Engineering. Page 87.
- VII. Course in Architectural Engineering. Page 54.
- VIII. Course in Chemical Engineering. Page 58.
- IX. Course in Architecture. Page 54.

In addition the following courses are offered:

- (a) A graduate course in Agriculture, leading to the degree of Master of Science in Agriculture.
- (b) Graduate courses leading to the degrees of Civil Engineer, Electrical Engineer, Mechanical Engineer, Textile Engineer. Page 97.
- (c) A two-year course in Agriculture. Page 46.
- (d) A two-year course in Textile Engineering. Page 95.
- (e) A two-year course in Agriculture for Teachers. Page 48.

Notes.—1. In addition to the work in the curricula of the several courses, students taking English are required to attend conferences with their instructors as stated in the description of the courses in English; and all undergraduates have military drill. See Course 3, Military Science, page 115.

2. The curricula shown on the following pages apply to the classes entering September, 1910, and thereafter. For the classes of '11, '12, '13, the curricula are as shown in the catalogue for 1908-09, and modified by subsequent Faculty action. See Appendix B.

COURSE IN AGRICULTURE.

It is the object of this course to give young men a thoroughly practical and scientific training in those branches of science which relate to agriculture, animal husbandry and horticulture. It is also intended that the student's general training shall not be neglected, and to this end he is given instruction in the English language, history and mathematics, in addition to the special instruction in the sciences of chemistry, physics, botany and animal anatomy and physiology.

The twenty-four hundred acres in the farm, one hundred and twenty milch cows (Jersey, Holstein and grades), hogs, work stock, tools and machinery, silos, etc., furnish illustrations of practical value to the student. The dairy is fitted with milk separators, churns, butterworkers and milk-testing machines. A considerable amount of student labor is used in connection with the live stock, farm machinery, dairy and horticultural interests of the College; for this and other work students are paid at a maximum rate of $12\frac{1}{2}$ cents per hour.

The permanent location of the Texas Agricultural Experiment Station at the College makes it possible to give students the benefit of experiments conducted at the College, and the Experiment Station library forms a valuable adjunct to the regular College library by furnishing the results of valuable tests made along agricultural lines in other States. The library also receives the leading agricultural periodicals, which are available to students.

The studies in the course in Agriculture are divided into three groups; Group A gives prominence to work in soils, farm management, machinery, crops, dairy farming and creamery management; Group B to work in horticultural subjects, and Group C to work pertaining to live stock interests; Group D is intended for young men who wish to prepare themselves to teach the elements of agriculture.

The choice of the three groups must be made at the beginning of the Junior year. In the Senior year options are offered as shown in the curricula following.

I—COURSE IN AGRICULTURE.

Note.—The number following the name of a department refers to the number of the course as shown in the description of the department. Practice is indicated in italics.

FRESHMAN YEAR.

Fall.	Hours per week.	Winter.	Hours per week.	Spring.	Hours per week.
Animal Husbandry 1	3	Agriculture 2	3	Horticulture 1	3
Judging.		Dairying.		Elements.	
Botany 1	3	Botany 1	3	Botany 1	3
Elementary Biology.		Elementary Biology.		Elementary Biology.	
English 1	3	English 1	3	English 1	3
Rhetoric and Comp.		Rhetoric and Comp.		Rhetoric and Comp.	
History 1	3	History 1	3	History 1	3
English.		English.		English.	
Mathematics 11	3	Mathematics 11	3	Mathematics 11	3
Geometry.		Geometry.		Geometry.	
Physics 1	3	Physics 1	3	Physics 1	3
General.		General.		General.	
<i>Animal Husbandry 1.</i>	2	<i>Animal Husbandry 2</i>	4	<i>Horticulture 1</i>	2
<i>Botany 1</i>	2	<i>Botany 1</i>	2	<i>Botany 1</i>	2
<i>Drawing 20</i>	2	<i>Drawing 20</i>	2	<i>Drawing 20</i>	2
<i>Physics 1</i>	2	<i>Physics 1</i>	2	<i>Physics 1</i>	2
<i>Agriculture 1</i>	2	<i>Agriculture 2</i>	2	<i>Mechanical Eng. 33</i>	2

SOPHOMORE YEAR.

Agriculture 3	3	Agriculture 3	3	Animal Husbandry 4	3
Soils.		Soils.		Judging.	
Animal Husbandry 3	3	Horticulture 2	3	Horticulture 3	3
Judging.		Nursery Methods.		Truck Gardening.	
Botany 2	3	Botany 2	3	Botany 2	3
Systematic.		Systematic.		Systematic.	
Chemistry 1	3	Chemistry 1	3	Chemistry 1	3
Inorganic.		Inorganic.		Inorganic.	
English 2	2	English 2	2	English 2	2
Literature.		Literature.		Literature.	
Military Science 1	1	Military Science 1	1	Military Science 1	1
Physics 2	3	Veterinary Science 1	3	Animal Husbandry 10	3
General.		Anatomy and Physiology.		Poultry.	
<i>Agriculture 3</i>	2	<i>Agriculture 3</i>	2	<i>Animal Hus. 4, 10</i>	4
<i>Animal Husbandry 3</i>	2	<i>Horticulture 2</i>	2	<i>Horticulture 3</i>	2
<i>Botany 2</i>	2	<i>Botany 2</i>	2	<i>Botany 2</i>	2
<i>Chemistry 1</i>	2	<i>Chemistry 2</i>	2	<i>Chemistry 2</i>	2
<i>Physics 2</i>	2	<i>Veterinary Science 1</i>	2		

GROUP A—AGRICULTURE.

JUNIOR YEAR.

Agriculture 4	3	Agriculture 4	3	Agriculture 4	3
Farm Crops.		Farm Crops.		Farm Crops.	
Botany 3	3	Botany 4	3	Botany 5	3
Bacteriology.		Systematic Entomology.		Economic Entomology.	
Chemistry 3	3	Chemistry 4	3	Chemistry 4	3
Descriptive Organic.		Agricultural.		Agricultural.	
Civil Engineering 1		Civil Engineering 2		Agriculture 5	
Surveying and Leveling.		Roads and Pavements.		Irrigation.	
<i>Or Chemistry 6</i>	3	<i>Or Chemistry 7</i>	3	<i>Or Chemistry 7</i>	3
Economic Geology.		Organic.		Organic.	
English 4	3	English 4	3	English 4	3
Adv. Comp.		Adv. Comp.		Adv. Comp.	
Veterinary Science 2	3	Veterinary Science 4	3	Veterinary Science 5	3
Pharmacology.		Non-infectious Diseases.		Obstetrics.	
				<i>Or Horticulture 6</i>	3
				Plant Breeding.	
<i>Agriculture 4</i>	4	<i>Botany 4</i>	2	<i>Agriculture 4</i>	2
<i>Chemistry 3</i>	2	<i>Chemistry 5</i>	2	<i>Chemistry 5</i>	2
<i>Civil Engineering 1</i>		<i>Civil Engineering 1</i>		<i>Agriculture 4</i>	
<i>Or Chemistry 6</i>	2	<i>Or Chemistry 7</i>	2	<i>Or Chemistry 7</i>	2
<i>Veterinary Science 2</i>	2	<i>Veterinary Science 4</i>	4	<i>Veterinary Science 5</i>	2
				<i>Botany 5</i>	2

SENIOR YEAR.

Fall.	Hours per week.	Winter.	Hours per week.	Spring.	Hours per week.
Required.					
Agriculture 6	3	Agriculture 6	3	Agriculture 6	3
Farm Management.		Farm Management.		Farm Management.	
History 3	3	History 3	3	History 3	3
Economics.		Economics.		Economics.	
Military Science 2	1	Textile Eng. 5	1	Textile Eng. 5	1
		Cotton Classing.		Cotton Classing.	
Agriculture 6	2	Agriculture 6	2	Agriculture 5	2
Option 1. Agriculture.					
Architectural Eng.	3	Agriculture 7	3	Agriculture 8	3
Building and Cement Construction.		Farm Powers.		Farm Machinery.	
Botany 9	3	Botany 9	3	Botany 9	3
Plant Diseases.		Plant Diseases.		Plant Diseases.	
*Elective	3	*Elective	3	*Elective	3
Architectural Eng.	2	Agriculture 7	2	Agriculture 7	2
Botany 9	2	Botany 9	2	Botany 9	2
*Elective	2	*Elective	2	*Elective	2
Option 2. Dairy Husbandry.					
Agriculture 9	2	Agriculture 9	2	Agriculture 9	2
Advanced Dairying.		Advanced Dairying.		Advanced Dairying.	
Botany 8	2	Botany 8	2	Botany 8	2
Bacteriology.		Bacteriology.		Bacteriology.	
Chemistry 11	2	Chemistry 11	2	Chemistry 11	2
Dairy.		Dairy.		Dairy.	
Agriculture 9	4	Agriculture 9	4	Agriculture 9	4
Botany 8	4	Botany 8	4	Botany 8	4
Chemistry 11	4	Chemistry 11	4	Chemistry 11	4
Option 3. Agricultural Chemistry.					
Chemistry 8	2	Chemistry 8	2	Chemistry 8	2
Adv. Agr. Analysis.		Adv. Agr. Analysis.		Adv. Agr. Analysis.	
Chemistry 9	2	Chemistry 10	2	Chemistry 10	2
Physical.		Advanced Agricultural.		Advanced Agricultural.	
*Elective	3	*Elective	3	*Elective	3
Chemistry 8, 9	10	Chemistry 8, 10	10	Chemistry 8, 10	10
*Elective	2	*Elective	2	*Elective	2
Option 4. Agricultural Botany.					
Botany 7	2	Botany 7	2	Botany 7	2
Plant Physiology.		Plant Physiology.		Plant Physiology.	
Botany 8	2	Botany 8	2	Botany 8	2
Bacteriology.		Bacteriology.		Bacteriology.	
*Elective	3	*Elective	3	*Elective	3
Botany 7, 8	10	Botany 7, 8	10	Botany 7, 8	10
*Elective	2	*Elective	2	*Elective	2

*To be chosen under the supervision of the Dean.

GROUP B—HORTICULTURE.**JUNIOR YEAR.**

Fall.	Hours per week.	Winter.	Hours per week.	Spring.	Hours per week.
Botany 3	3	Botany 4	3	Botany 5	3
Bacteriology.		Systematic Entomology.		Economic Entomology.	
Chemistry 3	3	Chemistry 4	3	Chemistry 4	3
Descriptive Organic.		Agricultural.		Agricultural.	
Civil Engineering 1		Civil Engineering 1		Agriculture 5	
Surveying and Leveling.		Surveying and Leveling.		Irrigation.	
Or Chemistry 6	3	Or Chemistry 7	3	Or Chemistry 7	3
Economic Geology.		Organic.		Organic.	
English 4	3	English 4	3	English 4	3
Adv. Comp.		Adv. Comp.		Adv. Comp.	
Horticulture 4	3	Horticulture 5, 7	3	Horticulture 6	3
Orchards.		Viticulture, Small Fruits.		Plant Breeding.	
Veterinary Science 2	3	Veterinary Science 4	3	Horticulture 8	3
Pharmacology.		Chemistry 5	2	Spraying.	
Chemistry 3	3	Civil Engineering 1		Chemistry 5	3
Civil Engineering 1		Civil Engineering 1		Agriculture 5	
Or Chemistry 6	2	Or Chemistry 7	2	Or Chemistry 7	2
Horticulture 4	4	Horticulture 5, 7	4	Horticulture 6, 8	4
Veterinary Science 2	2	Botany 4	2	Botany 5	2

GROUP B—HORTICULTURE.**SENIOR YEAR.****Required.**

Horticulture 9	3	Horticulture 10	3	Horticulture 11	3
Pomology.		Citrus Fruits.		Experimental.	
History 3	3	History 3	3	History 3	3
Economics.		Economics.		Economics.	
Military Science 2	1	Textile Eng. 5	1	Textile Eng. 5	1
		Cotton Classing.		Cotton Classing.	
Horticulture 9	4	Horticulture 10	4	Horticulture 11	2
		Option 1. Horticulture.			
Botany 9	3	Botany 9	3	Botany 9	3
Plant Diseases.		Plant Diseases.		Plant Diseases.	
Horticulture 14	2	Agriculture 7	3	Horticulture 12, 13	3
Forestry.		Farm Powers.		Floriculture, Landscape Gardening.	
*Elective	3	*Elective	3	*Elective	3
Botany 9	2	Botany 9	2	Botany 9	2
Horticulture 14	2	Agriculture 7	2	Horticulture 12	2
*Elective	2	*Elective	2	*Elective	2

Option 2. Agricultural Chemistry.

Chemistry 8	2	Chemistry 8	2	Chemistry 8	2
Adv. Agr. Analysis.		Adv. Agr. Analysis.		Adv. Agr. Analysis.	
Chemistry 9	2	Chemistry 10	2	Chemistry 10	2
Physical.		Advanced Agricultural.		Advanced Agricultural.	
*Elective	3	*Elective	3	*Elective	3
Chemistry 8, 9	10	Chemistry 8, 10	10	Chemistry 8, 10	10
*Elective	2	*Elective	2	*Elective	2

Option 3. Agricultural Botany.

Botany 8	2	Botany 8	2	Botany 8	2
Bacteriology.		Bacteriology.		Bacteriology.	
Botany 9	2	Botany 9	2	Botany 9	2
Plant Physiology.		Plant Physiology.		Plant Physiology.	
*Elective	3	*Elective	3	*Elective	3
Botany 8, 9	10	Botany 8, 9	8	Botany 8, 9	8
*Elective	2	*Elective	2	*Elective	2

*To be chosen under the supervision of the Dean.

GROUP C—ANIMAL HUSBANDRY.

JUNIOR YEAR.

Fall.	Hours per week.	Winter.	Hours per week.	Spring.	Hours per week.
Agriculture 4	3	Agriculture 4	3	Agriculture 4	3
Farm Crops.		Farm Crops.		Farm Crops.	
Botany 3	3	Botany 4		Botany 5	
Bacteriology.		Systematic Entomology.		Economic Entomology.	
Chemistry 3	3	Or Chemistry 7	3	Or Chemistry 7	3
Descriptive Organic.		Organic.		Organic.	
		Chemistry 4	3	Chemistry 4	3
		Agricultural.		Agricultural.	
English 4	3	English 4	3	English 4	3
Adv. Comp.		Adv. Comp.		Adv. Comp.	
Veterinary Science 2	3	Veterinary Science 4	3	Veterinary Science 5	3
Pharmacology.		Non-infectious Diseases.		Obstetrics.	
Veterinary Science 3	3	Animal Husbandry 5	3	Animal Husbandry 6	3
Infectious Diseases.		Breeding.		Breeding.	
		Botany 4		Agriculture 4	2
		Or Chemistry 7	2		
Agriculture 4	4	Animal Husbandry 5	2	Animal Husbandry 6	2
Chemistry 3	2	Chemistry 5	2	Chemistry 5	2
Veterinary Science 2	2	Veterinary Science 4	4	Veterinary Science 5	2
Animal Hus. 11	2			Botany 5	
				Or Chemistry 7	2

SENIOR YEAR.

Required.

Animal Husbandry 7	3	Animal Husbandry 7	3	Animal Husbandry 7	3
Feeding.		Feeding.		Feeding.	
History 3	3	History 3	3	History 3	3
Economics.		Economics.		Economics.	
Military Science 2	1	Textile Eng. 5	1	Textile Eng. 5	1
		Cotton Classing, Optional.		Cotton Classing, Optional.	
Animal Husbandry 7	2	Animal Husbandry 7	2	Animal Husbandry 7	2

Option 1. Animal Husbandry.

Agriculture 6	3	Agriculture 6	3	Agriculture 6	3
Farm Management.		Farm Management.		Farm Machinery.	
Animal Husbandry 8	3	Agriculture 7	3	Animal Husbandry 9	3
Adv. Judging.		Farm Powers.		Stock Management.	
*Elective	3	*Elective	3	*Elective	3
Agriculture 6	2	Agriculture 6, 7	4	Agriculture 6	2
Animal Husbandry 8	2			Animal Husbandry 9	2
*Elective	2	*Elective	2	*Elective	2

Option 2. Veterinary Science.

Veterinary Science 7	3	Veterinary Science 7	3	Veterinary Science 7	3
Anatomy.		Anatomy.		Anatomy.	
*Elective	6	*Elective	6	*Elective	6
Veterinary Science 7	6	Veterinary Science 7	6	Veterinary Science 7	6
*Elective	4	*Elective	4	*Elective	4

Option 3. Agricultural Chemistry.

Chemistry 8	2	Chemistry 8	2	Chemistry 8	2
Adv. Agr. Analysis.		Adv. Agr. Analysis.		Adv. Agr. Analysis.	
Chemistry 9	2	Chemistry 10	2	Chemistry 10	2
Physical.		Advanced Agricultural.		Advanced Agricultural.	
*Elective	3	*Elective	3	*Elective	3
Chemistry 8, 9	10	Chemistry 8, 10	10	Chemistry 8, 10	10
*Elective	2	*Elective	2	*Elective	2

*To be chosen under the supervision of the Dean.

GROUP D—COURSE FOR TEACHERS.

JUNIOR YEAR.

Fall.	Hours per week.	Winter.	Hours per week.	Spring.	Hours per week.
Botany 3	3	Botany 4	3	Botany 5	3
Bacteriology.		Syst. Entom.		Economic Entom.	
Chemistry 3	3	Chemistry 4	3	Chemistry 4	3
Des. Organic.		Agricultural.		Agricultural.	
Education	3	Education	3	Education	3
Psychology.		Psychology.		Psychology.	
English 4	3	English 4	3	English 4	3
Adv. Comp.		Adv. Comp.		Adv. Comp.	
Horticulture 4	3	Veterinary Science	4	Horticulture 6	3
Orchards.		Non-infectious Diseases.		Plant Breeding.	
Agriculture 4	3	Agriculture 4	3		
Farm Crops.		Farm Crops.			
Chemistry 3	2	Chemistry 5	2	Chemistry 5	2
Drawing	2	Drawing	2	Drawing	2
Agriculture 4	4	Mechanical Eng.	4	Mechanical Eng.	6
Horticulture 4	2	Botany 4	2	Botany 5	2
				Horticulture 6	4

SENIOR YEAR.

Agriculture 6	3	Agriculture 6	3	Agriculture 8	3
Farm Management.		Farm Management.		Farm Machinery.	
Botany 9	3	Botany 9	3	Botany 9	3
Plant Diseases.		Plant Diseases.		Plant Diseases.	
Education	3	Education	3	Education	3
School Management.		Methods of Teaching.		Principles of Education.	
History 3	3	History 3	3	History 3	3
Ind. and Soc.		Ind. and Soc.		Ind. and Soc.	
Horticulture 9	3	Animal Husbandry	7	Horticulture 12, 13	3
Pomology.		Feeding.		Floriculture and Land- scape Gardening.	
Agriculture 6	2	Agriculture 6	2	Agriculture 8	2
Botany 9	2	Botany 9	2	Botany 9	2
Horticulture 9	2	Animal Husbandry 7	2	Horticulture 12, 13	2
Mechanical Eng.	4	Mechanical Eng.	4	Mechanical Eng.	4

DEPARTMENT OF AGRICULTURE.

PROFESSOR ALVORD.

ASSISTANT PROFESSOR MCKNIGHT.

MR. THOMAS.

The course of study in the Department of Agriculture is designed to give the student a thorough training in the science of agriculture and the practical application of scientific principles to the business of farming. Agriculture must be followed primarily for the gaining of a livelihood and for this reason it is essential that those who expect to teach as well as those who expect to engage in practical farming must have a comprehensive understanding of the business aspects as well as the scientific features of agriculture.

The purpose of education in agriculture is to improve the student by training his mental capacity and to awaken a more lively interest in and create a greater respect for agricultural affairs.

The business of farming requires that a man should be able to use his mental as well as his physical powers, and for this reason training in those studies that promote and develop a mental equilibrium is maintained since experience has indicated that as a rule the young men who come to this College from the farm are better prepared to use their hands than they are to exercise their reasoning faculties.

In addition to the courses in English, mathematics, physics, chemistry and botany students are also given thorough training in the management of soils, including drainage and irrigation; the growing of all kinds of farm crops; the judging, breeding and feeding of farm animals; the physiology and anatomy and diseases of domestic animals; the planning and construction of farm buildings, fences, roads and bridges; and the equipment and management of modern farms.

The College farm, comprising four hundred acres of cultivated land and sixteen hundred of pasture, together with the equipment of work stock and the dairy herd, consisting of about three hundred animals, are under the direct supervision of the head of the Department of Agriculture, and in so far as possible are utilized in practice work and in the demonstration of correct principles of farm management.

The College Creamery is also connected with this department and is utilized for practical demonstration work in butter and ice cream making and creamery management.

In the Senior year options will be given in (1) Practical Agriculture; (2) Dairy Husbandry; (3) Agricultural Chemistry; (4) Agricultural Botany.

The courses are as follows:

1. Farm Crops. Freshman. Fall, 2 hours a week. Practice.

A brief course in the study of corn, cotton and other farm crops with especial reference to desirable types for selection for seed purposes.

2. Farm Dairying. Freshman. Winter, 3 hours a week; with practice.

A brief course in the composition of milk and milk products; the use and care of cream separators; the handling of cream, and the manufacture of butter on the farm. Instruction will also be given in the care and feeding of dairy cows and in the raising of dairy calves.

Practice, 2 hours a week.

This course is taken in the Fall term by second-year students in the Two-Year Course.

3. Soil Management. Sophomore. Fall, Winter, 3 hours a week; with practice.

Lectures and recitations upon the origin, formation, kinds and physical properties of soils.

During the Winter term considerable attention will be given to the study of soil conditions in Texas, and the management of soils with respect to increasing and conserving soil fertility; the necessity for and requirements of intensive agriculture.

Attention will also be given to local conditions in different sections of the State, including the best methods applicable under dry farming conditions in the West, problems in soil management in the black land districts, the reclamation of the poorly drained soils of East Texas, and the prevention of the washing of hill land.

Practice, 2 hours a week.

Laboratory and field study in testing the physical properties of soils; determining the relation of heat, light and moisture to soils; mechanical analyses of different soils.

4. Farm Crops. Junior. Fall, Winter, Spring, 3 hours a week; with practice.

Lectures and recitations upon history, production, cultivation, harvesting and marketing of farm crops. The fall and winter subjects will include cereals, and the Spring term will be devoted to the study of forage fiber crops.

Practice, Fall, 4 hours; Spring, 2 hours a week

The practice will consist of field and laboratory study of all crops adapted to Texas conditions, including not only those commonly grown, but the most important new crops which give promise of economic value in different parts of the State.

5. Irrigation and Drainage. Junior. Spring, 3 hours a week; with practice.

Lectures and recitations upon the several methods of irrigation in use and the amount of water necessary for various crops, and the available water supply of this State. Under the subject of drainage, a careful study is made of the use of water in the soil and the various methods of removing free water from the soil. Proper methods of protecting lands from washing are also discussed in detail.

Practice, Spring, 2 hours a week.

Prerequisite, C. E. (I).

6. Farm Management. Senior. Fall, Winter, Spring, 3 hours a week; with practice.

Lectures and recitations upon the planning, equipment and management of farms; the employment of labor; the keeping of farm records; systems of land tenure; the cost of crop production, and the economy of general farm practice.

Practice, 2 hours a week.

7. Farm Powers. Senior. Winter, 3 hours a week; with practice.

Lectures and recitations upon the various kinds of motive powers used on the farm; the mechanical principles underlying the same and their adaptation to farm practice.

Practice, 2 hours a week.

8. Farm Machinery. Senior. Spring, 3 hours a week; with practice.

Lectures and recitations upon the construction, care, proper use and repair of farm machinery.

Practice, 2 hours a week.

Comparisons and tests of various makes and kinds of farm machinery.

9. Advanced Dairying. Senior. Fall, Winter, Spring, 2 hours a week; with practice.

Seniors desiring to pursue special studies in Dairy Husbandry will be offered a course in advanced dairying continuing throughout the Senior year. Fall and Winter terms, butter making and creamery management; Spring term, ice cream making and certified milk business.

Practice, 4 hours a week.

10. Soils. Senior. (Elective.) Fall, Winter, Spring; with practice.

A continuation of Course 2, giving advanced work for students desiring to specialize in Soils for the purpose of preparing themselves for positions in the Department of Agriculture.

Practice, 2 hours a week.

TWO-YEAR COURSE IN AGRICULTURE.

*First Year.***15. Soils and Crops. Fall, 6 hours a week; with practice.**

A comprehensive study of the origin and formation of soils; the use of commercial fertilizers and the maintenance of soil fertility by proper tillage and crop rotations. Soils, *Fletcher*.

Practice, 2 hours a week.

Laboratory and field practice in a study of problems of soil moisture and temperature; the effects of different methods of cultivation and the relation of humus to the productive capacity of the soil.

16. Farm Crops. Spring, 3 hours a week; with practice.

Special attention is given to the study of cotton, corn, milo maize and Kaffir corn, alfalfa, cowpeas and other legumes.

Practice, 2 hours a week.

*Second Year.***17. Irrigation and Drainage. Fall, 3 hours a week; with practice.**

Lectures and recitations on the principles of irrigation and the methods of applying water to rice, alfalfa, truck crops and fruits. Also a study of drainage problems and the different methods of removing free water from the soil.

Practice, 2 hours a week, leveling.

18. Farm Machinery. Winter, 3 hours a week; with practice.

A brief study of the construction and use of machinery adapted to agricultural conditions in the Southwest. The relative merits of various tools are tested in the field and laboratory, and students are required to assemble various machines and put them in proper adjustment.

Practice, 2 hours a week.

19. Farm Management and Equipment. Spring, 3 hours a week; with practice.

A thoroughly practical course in farm management, including farm bookkeeping and records; a study of the cost of production of crops under different systems of farm management; the proper use of farm equipment; the employment of labor, etc.

Practice, 2 hours a week.

DEPARTMENT OF ANIMAL HUSBANDRY.

ACTING PROFESSOR BURNS.

MR. GRISWOLD.

The courses of study in the Department of Animal Husbandry may be grouped under the three main lines:

- (1) The Judging of Live Stock.
- (2) The Breeding of Live Stock.
- (3) The Feeding of Live Stock.

These are arranged to follow each other in proper order so that they may be best understood by the student, and most clearly taught by the instructor. Every effort is made to make every course in Animal Husbandry contribute to the better understanding of the others, and all unite in embracing the subject completely. Special efforts are made in every course to present the useful side, and also to devote as much time as possible to the practices. Students intending to specialize in Animal Husbandry are required to take the studies under Group C.

The courses are as follows:

1. **Judging Market Classes of Cattle and Sheep. Freshman. Fall, 3 hours a week; with practice.**

The lectures are explanatory of the various classes of cattle and sheep recognized in the leading stock markets. The points of these and their value to stockman, butcher and consumer are fully discussed. The practice embraces a thorough training in the scoring of fat cattle and fat sheep; supplemented by the study of dressed carcasses as far as possible. In this course lectures are also given on the type and function of the dairy cow and thorough training is given in the scoring of dairy cattle.

Practice, 2 hours a week. Judging Live Stock, Craig.

2. **Judging Market Classes of Horses and Swine. Freshman. Winter, 4 hours a week. Practice.**

The classes of horses and swine recognized in the leading markets are discussed fully. The distinction of classes, and their importance, is made clear by the further use of the score card during the practice periods.

3. **Judging Breed Types of Cattle and Sheep. Sophomore. Fall, 3 hours a week; with practice.**

As far as the equipment in live stock will permit, the student is shown by means of representative animals, the best types of the breeds of cattle

and sheep. The score cards of the different breed associations are used in determining the merits of the animals, and these are further explained in the lectures.

Practice, 2 hours a week. Types and Breeds of Farm Animals, *Plumb*.

4. Judging Breed Types of Horses and Swine. Sophomore. Spring, 3 hours a week; with practice.

The distinctive features of the types of these breeds will be made clear by direct comparison, as far as possible. To aid in this, the score cards of the breed associations will be used extensively; followed by some advanced judging similar to that of the show ring.

Practice, 2 hours a week.

5. The Breeding of Live Stock. Junior. Winter, 3 hours a week; with practice.

The lectures of this course embrace a presentation of the principles of breeding, the methods of breeding, and the history and characteristics of the breeds of live stock. Heredity and variation and allied topics are included in the lectures on the principles, while the subjects of in-breeding, line breeding, and balanced breeding are among those relating to the methods of breeding. Principles of Breeding, *Davenport*.

Practice, 2 hours a week.

6. The Breeding of Live Stock and the Study of Pedigrees. Junior, Spring, 3 hours a week; with practice.

The practices of breeding live stock are treated fully, including the business of producing pure-bred stock, as well as those for the common market. The breeding of horses, cattle, sheep, and swine as a business is discussed in full details, covering all features of management in production and marketing. The study of pedigrees is given special attention. Students are required to trace out the blood lines of some of the most noted animals of each breed of live stock in order that they may obtain a knowledge of the combinations that have produced the best results.

Practice, 2 hours a week.

7. The Feeding of Live Stock. Senior. Fall, Winter, Spring, 3 hours a week; with practice.

The subject of animal nutrition, the calculating of rations for farm animals, and the composition of all available feed stuffs, are treated very fully.

The course embraces a study of the feeding of all classes of farm animals, horses, cattle, sheep and swine. The student will be required

to make abstracts of Experiment Station bulletins, and to keep fully informed as to the latest publications relating to feeding from these sources.

Profitable Stock Feeding, *Smith*; Feeds and Feeding, *Henry*.

Practice, 2 hours a week. The practice will consist in part of the making of rations for different classes of stock from limited selections of foods.

8. Advanced Judging. Senior. Fall, 3 hours a week; with practice.

In this course the work of competitive judging is given prominence. Classes of the different kinds of live stock are selected as similar as possible to those which come together in the show rings of exhibitions.

Practice, 2 hours a week.

9. Live Stock Management. Senior. Spring, 3 hours a week; with practice.

In this course lectures are given concerning the management of stock farms and ranches. A study is made of the methods used by some of the most successful stock farmers and ranchers of Texas and other States. Special attention is given to the management of pure bred herds and flocks, and to the keeping of private herd and flock records.

Practice, 2 hours a week.

10. Poultry Judging and Management. Sophomore. Spring, 3 hours a week; with practice.

Lectures are given on the origin, history and classification of the various breeds of poultry. A thorough study is made of poultry feeding and breeding. Houses, yards, diseases, incubation, brooding and marketing of poultry products receive careful consideration. The interests of both the fancier and the producer of market poultry are kept in mind. Instruction is given in scoring market types and breeds of poultry, and when the student has attained proficiency in this, comparative judging is introduced. Some practice periods are devoted to studying the anatomy of birds; and some to studying incubators and brooders.

Practice, 2 hours a week. "American Standard of Perfection."

11. Poultry. Junior. Fall, 2 hours a week. Practice.

This is a continuation of Course 10 and permits students specializing in Animal Husbandry to become more thoroughly familiar with the practical side of poultry raising.

12. Judging Market Classes of Horses and Swine. Winter, 3 hours a week.

The classes of horses and swine in the leading markets are discussed. The distinction of classes and their importance is made clear by the further use of the score card.

(Required in the Two-Year Course in Agriculture.)

DEPARTMENT OF BOTANY AND ZOOLOGY.

PROFESSOR BALL.

MR. SCHOLL.

The aim of this department is to utilize the time allotted to it in work which is most needful in the study of agricultural and horticultural subjects and to give such knowledge of plant and animal life as every well-educated man should possess.

Instruction is given by lecture and text, and especial emphasis is laid upon work done in the laboratory, where every effort is made to induce habits of independent observation and thought.

The courses are as follows:

1. **Elementary Biology. Freshman. Fall, Winter, Spring, 3 hours a week; with practice.**

The life processes of plants and animals are so presented in this course as to give the young student a concise and accurate conception of the nature of the living things about him, how they live and act, what they *do*, rather than what they are. The text-book is supplemented by ample lecture table demonstrations of the chief functions of the plant and animal organism, and the student is encouraged, in field and laboratory, to obtain for himself a familiarity with the phenomena of the animate world.

Text to be assigned.

Practice, 2 hours a week.

2. **Botany. Sophomore. Fall, Winter, Spring, 3 hours a week; with practice.**

The morphology and systematic relations of plants receive especial attention in this course, which begins with a thorough study of the external and internal form and structure of the plant. The second half year is devoted to systematic and ecologic work. As many native plants as time permits are studied and identified, especial attention being given to those of economic importance.

Principles of Botany, *Bergen & Davis*; Manual of Botany, *Gray*; Flora of the Southern States, *Chapman*.

Practice, 2 hours a week.

3. **Descriptive Bacteriology. Junior. Fall, 3 hours a week.**

This course aims to present to the student an outline of the relation of bacteria to everyday life, at home and on the farm. The rationale of sanitation, personal and general, is shown, as also the varied rôle played by these organisms in the formation of soils and in various agricultural

processes. So far as possible, the carrying relationship of house-flies, mosquitoes, vermin, etc., are discussed.

Text to be assigned.

4. **Systematic Entomology. Junior. Winter, 3 hours a week; with practice.**

In this course the student takes up the study of the various orders of insects, becoming familiar with the common, injurious and beneficial members found in each order. An introduction to the literature of systematic and economic entomology is given so that the student will be able readily to find reference should occasion demand. In the laboratory the student is given types of the different orders so that he may become familiar with their structure. Collecting trips are made to the fields to study the nature of insects infesting winter crops, and also to observe the hibernation of insects.

Manual of the Study of Insects, *Comstock*.

Practice, 2 hours a week.

5. **Economic Entomology. Junior. Spring, 3 hours a week; with practice.**

A study of insects of greatest economic importance is pursued under this course. Especial attention is given to the life history and habits of the injurious insects of staple, truck and fruit crops, with methods of control by farm practice and by the use of insecticides. The relation of predaceous and parasitic insects in checking insect pests is shown both in the laboratory and field. In practice work the student is taught the preparation of different kinds of sprays and the manipulation of spray machines by actual operations in the field or orchard.

Economic Entomology, *Smith*; or similar text.

Practice, 2 hours a week.

6. **Elements of Sanitary Science. Senior. Winter, 1 hour a week.**

Required in Architectural but open to all Engineering courses. Lectures on the relation of bacteria to sanitation and on the natural and artificial methods of control and destruction of bacteria.

Parallel reading assigned from time to time.

7. **Plant Physiology. Senior. Fall, Winter, Spring, 2 hours a week; with practice.**

Required of students selecting option in agricultural botany. The functions of respiration, assimilation and nutrition receive especial attention. The object steadfastly kept in view is to make this work of practical benefit to students who wish to pursue work of higher character in agriculture and horticulture and at the same time to give adequate training in methods of research.

Physiology of Plants, *McDougal*; Plant Physiology, *Darwin and Acton*; reference works from department library.

Practice, 4 hours a week.

8. Bacteriology. Senior. Fall, Winter, Spring, 2 hours a week; with practice.

Required of students selecting option in Dairy Husbandry. Open as elective to students of Animal Husbandry. The course offers work in methods of preparation and culture of bacteria; analysis of milk, butter, and dairy products; dairy hygiene; discussions of the rôle of bacteria in fermentations, such as of silage, etc.

Agricultural Bacteriology, *Conn*; Manual of Bacteriology, *Moore*; reference works from department library.

Students selecting option in Agricultural Botany will be required to take Course 5.

Practice, 4 hours a week.

Practice, 6 hours a week when option in Agricultural Botany is chosen.

9. Plant Diseases. Senior. Fall, Winter, Spring, 3 hours a week; with practice.

Required of students in Agriculture and Horticulture; elective if option in Agricultural Chemistry or Agricultural Botany is chosen.

The Fall term is devoted to a preliminary study of the structure, physiology and classification of fungi, which is followed in the Winter and Spring terms by studies of the chief diseases of plants that are of economic importance in this State and that have a direct bearing on agricultural and horticultural pursuits. The student is trained to identify the various fungi causing these troubles and is shown the rationale of spraying and of other corrective measures. Plant diseases produced by functional disturbances, unsuitable soil and climatic conditions, and similar causes, receive attention within the limits of time and material.

Molds, Mildews and Mushrooms, *Underwood*; Diseases of Plants, *Tubew*; reference books from department library.

Practice, 2 hours a week.

TWO-YEAR COURSE IN AGRICULTURE.

First Year.

10. Botany. Winter, Spring, 3 hours a week.

Students of this course are offered work designed to present a clear outline of the fundamental facts of plant life upon which intelligent handling and care of farm crops are based. The Winter term offers a

study of the plant as a whole; the Spring, systematic and ecologic relations of plants with especial reference to those used as cultivated crops.

Texts to be assigned at a later date.

Practice, 2 hours a week.

11. Entomology. Winter, 3 hours a week; with practice.

An outline of the classification, life history and habits of insects is here offered. In the laboratory a certain type of insect is thoroughly studied by dissection, followed by a more general study of types of the various orders. The field work consists principally of the study of insects affecting winter crops. Observations are also made on the hibernation of insects.

Text to be assigned.

Practice, 2 hours a week.

Second Year.

12. Seeds. Winter, 3 hours a week.

The anatomy and function of the seed will be briefly traced, introductory to a study of various staple seeds as to quality, freshness and germinating power; the recognition and determination of amount and nature of impurities such as inert matter and foreign weed seeds, according to standard methods of seed testing.

13. Entomology. Spring, 3 hours a week; with practice.

A general study of insects affecting farm crops and infesting domestic animals, with methods of control, will be given in this course. The student will also be taught methods of farm control and the efficiency of insect parasitism as checks to insect pests. Practice will consist of the study of sprays, their preparation and application, and the use of spray machinery in actual field work.

Text to be assigned.

Practice, 2 hours a week.

DEPARTMENT OF HORTICULTURE.

PROFESSOR KYLE.

MR. MILLER.

The aim of this department is twofold: First, to develop scientific horticulturists; second, to turn out practical fruit and truck-growers. This statement does not mean that there are two distinct courses, but that when a student finishes the course he is prepared to engage in either the scientific or the practical side of horticulture. The course of study covers pretty fully the different lines of horticulture; it embraces the following subjects: Elementary principles of plant culture, nursery methods, truck gardening, orchard culture, small fruits, plant breeding, viticulture, spraying, greenhouses, citrus fruits, experimental horticulture, besides work in landscape gardening, floral culture and elementary forestry. The student is taught these subjects by means of text-books and lectures. In order to develop the practical side of the student, he is given from two to four hours a week in outdoor work, which comprises practice in budding, grafting, pruning, thinning fruit, spraying, setting out orchards and planting vegetables. He is taught how to mix and apply fertilizers and he is also shown the best methods of cultivating the different horticultural crops. The department now has growing on the Station grounds about thirty-six of the different leading commercial varieties of peaches, forty varieties of plums, eighteen varieties of paper-shell pecans, fifty varieties of grapes, a persimmon, pear and fig orchard, and small fruits consisting of blackberries and dewberries.

Besides the theoretical and practical work given at the College, the student is sent out during the summer to work in the orchards and truck farms of the largest growers, not only in this but in several of the other leading fruit States. Excursions are arranged during the school year for visiting the largest and most successful fruit and truck farms in the State. This not only gives the young man a good knowledge of the horticultural work done in his own State, but also enables him to become personally acquainted with some of the best practical horticulturists of the United States, and at the same time to familiarize himself with the methods used by such men.

The recent laws passed by the Legislature requiring elementary agriculture to be taught in the public and normal schools has created a demand for graduates of agricultural colleges as teachers. On account of the fact that most of the work of elementary agriculture is of a horticultural nature this department is making a strong effort to prepare young men for this important line of work. A number of our students

are already engaged in this work, in the State, and at the present time the department is unable to supply the demand.

This department can not begin to supply the demand made on it for young men well prepared in the different branches of horticulture, and it can be safely stated that this great industry has only just begun in the State.

The courses are as follows:

1. **Elements of Horticulture.** Freshman. Spring, 3 hours a week; with practice.

This course is designed as an introduction to the general subject of fruit and truck growing, gardening and forestry. Plant Culture, *Goff. Practice*, 2 hours a week.

In the first year of the Two-Year Course in Agriculture, Course 1 is given in the Fall term.

2. **Nursery Methods.** Sophomore. Winter, 3 hours a week; with practice.

The principles involved in the different methods of propagation of plants are fully discussed in the class-room, this work being supplemented by practical operations in field and forcing-house, and at the grafting bench. The protection of plants and nursery stock from insects and disease is considered. Lectures and reference books. Nursery Principles, *Bailey*.

Practice, 2 hours a week.

Prerequisite, Course 1.

3. **Truck Gardening.** Sophomore. Spring, 3 hours a week, with practice.

Detailed instruction in planning, equipping and operating vegetable plantations for home or commercial purposes is given in the class room, and practical demonstrations and experience in the field are offered. Lectures and references.

Practice, 2 hours a week.

Prerequisite, Course 1.

4. **Orchards.** Junior. Fall, 3 hours a week; with practice.

This course contemplates a comprehensive study of the various kinds of fruit orchards, embracing the problems of location and soils, protection from insects and diseases, pruning, cultivation, harvesting and marketing. Principles of Fruit Growing, *Bailey*. Lectures and references.

Practice, 4 hours a week.

Prerequisite, Course 2.

5. Small Fruits. Junior. Winter, 2 hours a week; with practice.

This course consists of a study of small and bush fruits similar to that of the tree fruits outlined in Course 9. Bush Fruits, *Card*. Lectures and references.

Practice, 2 hours a week.

6. Plant Breeding. Junior. Spring, 2 hours a week; with practice.

This course is planned to give the student a better understanding of the benefits to be derived from the intelligent breeding of plants. The relation of horticultural varieties and hybrids to each other and to their parent species is discussed, together with the principles of pollination, crossing and hybridization. Plant Breeding, *Bailey*. Lectures and references.

Practice, 2 hours a week.

Prerequisite, Course 2.

7. Viticulture. Junior. Winter, 1 hour a week; with practice.

This course includes a study of the vine, its care, management and products. The manufacture of jellies and the preservation of grape must are considered. Grape Growing, *Husmann*. Lectures and references.

Practice, 2 hours a week.

Prerequisite, Course 2.

8. Spraying. Junior. Spring, 3 hours a week; with practice.

Discussion of compounds and apparatus used in combating insects and diseases. Practice in making the various mixtures and applying them to plants. Spraying of Plants, *Lodeman*. Lectures.

Practice, 2 hours a week.

9. Pomology. Senior. Fall, 3 hours a week; with practice.

A comprehensive study is made of the evolution of our native fruits. Special attention is given to the grape, plum, mulberry, apple, cherry, blackberry, dewberry, strawberry, persimmon, etc. Practice in systematic pomology is given with such fruits as can be obtained during the fall. Evolution of Our Native Fruits, *Bailey*.

Practice, 4 hours a week.

Prerequisite, Course 4.

10. Citrus Fruits. Senior. Winter, 3 hours a week; with practice.

Special attention is given to the growing of the hardier varieties that are adapted to the Texas coast region. The course embraces all the

species of citrus fruits grown in this country, their culture, etc. Citrus Fruits and Their Culture, *Hume*.

Practice, 4 hours a week.

11. Experimental Horticulture. Senior. Spring, 3 hours a week; with practice.

This course is intended to familiarize the student with the practical methods of planning and carrying out experiments. The student will be required to plan his experiment, prepare the land, mix and apply the fertilizer, sow the seed, care for and harvest the crop, and make a report on the results obtained.

Practice, 2 hours a week.

Prerequisite, Courses 3, 4.

12. Floriculture. Senior. Spring, 2 hours a week; with practice.

A full discussion is given of the methods in growing bedding plants, cut flowers, orchards, palms and cacti. Lectures and references. Greenhouse Management, *Taft*.

Practice, 2 hours a week.

Prerequisite, Course 1.

13. Landscape Gardening. Senior. Spring, 1 hour a week.

Lectures are given on the history and development of gardening. The engineering and planting of parks, cemeteries, and home grounds are discussed. Lectures.

Prerequisite, Course 12.

14. Elementary Forestry. Senior. Fall, 2 hours a week; with practice.

A brief study of the history of forestry, means of propagation and development, and of the effect of forest on climate, etc. Lectures, references and recitations. American Forestry, *Green*.

Practice, 2 hours a week.

DEPARTMENT OF VETERINARY SCIENCE.

PROFESSOR FRANCIS.

DR. MARSTELLER.

Instruction in Veterinary Science is given only to those taking the agricultural course. The class rooms and laboratory are well equipped with books, instruments, skeletons, diseased bones, tumors, parasites, charts, etc.

The courses are as follows:

1. **Anatomy and Physiology of Domestic Animals.** Sophomore. Winter, 3 hours a week; with practice.

This course is intended as an introduction to the study of Veterinary Science. It treats of animal processes in a general way, and is supplemented by a practice period, in which each student is given an opportunity to study for himself the main features of animal nutrition, that he may be prepared to meet the problems that arise in the economic production of beef, pork, and dairy products.

Reference books: Physiology of the Domestic Animals, *Smith*; Anatomy of the Domestic Animals, *Chauveau*.

Practice, 2 hours a week.

2. **Pharmacology.** Junior. Fall, 3 hours a week; with practice.

A study of the substances used as medicine for animals and their curative properties. Practical demonstrations of narcosis and anesthesia are given.

Practice, 2 hours a week.

3. **Infectious Diseases and Embryology.** Fall. Junior, 3 hours a week.

A lecture course which will embrace a discussion of such diseases as anthrax, black leg, rabies, hog cholera, tuberculosis, etc. Ten or twelve lectures will be given on Embryology at the beginning of the term, as a preparation for a course on breeding.

4. **Non-Infectious Diseases.** Junior. Winter, 3 hours a week; with practice.

This course embraces a discussion of the most common diseases of domestic animals. Attention is given to the care of sick animals, and their practical treatment.

Pathology and Therapeutics of the Domestic Animals, *Friedberger*.

Practice, 4 hours a week.

Dissection of horse and cow, especial attention being given to organs of digestion and locomotion.

5. Obstetrics. Junior. Spring, 3 hours a week; with practice.

A lecture course on the process of reproduction, and the diseases and accidents incident thereto.

Veterinary Obstetrics, *Fleming*; Veterinary Obstetrics, *Dalrymple*.
Practice, 2 hours a week.

6. Parasites and Parasitic Diseases. Senior. Spring, 3 hours a week.

This course will be given as an elective in Senior year, if as many as five students care to take it. This course embraces a description and life history of those parasites which are of economic importance to the live stock interests of Texas.

7. Anatomy. Fall, Winter, Spring, 3 hours a week; with practice.

A course in Anatomy will be offered. It will be such as should give credit in any Veterinary College.

Practice, 6 hours a week.

TWO-YEAR COURSE IN AGRICULTURE.

ENTRANCE REQUIREMENTS.

Young men over eighteen years of age are admitted to this course without examination, if, in the judgment of the President of the College, they are qualified to do satisfactory work in the studies required in this course.

PLAN OF COURSE.

The two-year course in Agriculture is intended for young men who wish to spend one or two years in preparing to go back to the farm and apply successfully all of the more important scientific methods of farming which have been worked out in recent years. To this end the course is made highly practical and technical, including in abbreviated form most of the technical work required in the four-year course. Students who have carried the required amount of work two years and have had approved farm experience will be given a certificate showing the work done.

TWO-YEAR COURSE IN AGRICULTURE.

Note.—The number following the name of a department refers to the number of the course as shown in the description of the department. Practice is indicated in italics.

FIRST YEAR.

Fall.	Hours per week.	Winter.	Hours per week.	Spring.	Hours per week.
Animal Husb'dry 1, 3	6	Animal Husbandry 12	3	Animal Husbandry 4	3
Judging.		Judging.		Judging.	
Agriculture 15	6	Veterinary Science 1	3	Agriculture 16	3
Soils and Crops.		Anat. and Physiology.		Farm Crops.	
English 9	3	English 9	3	English 9	3
Grammar and Comp.		Grammar and Comp.		Grammar and Comp.	
Horticulture 1	3	Horticulture 2	3	Horticulture 3	3
Elements.		Nursery Methods.		Truck Gardening.	
		Botany 10	3	Botany 10	3
		Botany.		Botany.	
		Botany 11	3	Physics 10	3
		Entomology.		Elementary.	
<i>Animal Husb'dry 1, 3</i>	<i>4</i>	<i>Veterinary Science 1</i>	<i>2</i>	<i>Animal Husbandry 4</i>	<i>2</i>
<i>Agriculture 15</i>	<i>2</i>	<i>Botany 11</i>	<i>2</i>	<i>Agriculture 16</i>	<i>2</i>
<i>Horticulture 1</i>	<i>2</i>	<i>Horticulture 2</i>	<i>2</i>	<i>Horticulture 3</i>	<i>2</i>
		<i>Botany 10</i>	<i>2</i>	<i>Botany 10</i>	<i>2</i>
<i>Textile Eng. 18</i>	<i>2</i>	<i>Mechanical Eng. 33</i>	<i>2</i>	<i>Mechanical Eng. 34</i>	<i>2</i>

SECOND YEAR.

Agriculture 2, 17	6	Agriculture 18	3	Agriculture 19	3
Farm Dairying, Irrigation and Drainage.		Farm Machinery.		Farm Management and Equipment.	
Chemistry 20	3	Chemistry 20	3	Chemistry 20	3
Practical.		Practical.		Practical.	
English 10	3	English 10	3	Veterinary Science 5	2
Comp. and Rhetoric.		Comp. and Rhetoric.		Obstetrics.	
Horticulture 4	3	Horticulture 5	3	Horticulture 6	3
Orchards.		Small Fruits.		Plant Breeding.	
Veterinary Science 2	3	Animal Husb'dry 5, 7	6	Animal Husbandry 7	3
Pharmacology.		Breeding, Feeding.		Feeding.	
		Botany 12	3	Botany 13	3
		Seeds.		Entomology.	
<i>Agriculture 2, 17</i>	<i>4</i>	<i>Agriculture 18</i>	<i>2</i>	<i>Agriculture 19</i>	<i>2</i>
<i>Chemistry 20</i>	<i>2</i>	<i>Chemistry 20</i>	<i>2</i>	<i>Veterinary Science 5</i>	<i>2</i>
<i>Horticulture 4</i>	<i>2</i>	<i>Horticulture 5</i>	<i>2</i>	<i>Horticulture 6</i>	<i>2</i>
<i>Veterinary Science 2</i>	<i>2</i>	<i>Animal Husb'dry 5, 7</i>	<i>4</i>	<i>Animal Husbandry 7</i>	<i>2</i>
				<i>Botany 13</i>	<i>2</i>

TWO-YEAR COURSE FOR TEACHERS

ENTRANCE REQUIREMENTS.

To enter this course the applicant must be at least eighteen years old and must satisfy all the requirements for admission to the Freshman Class in the four-year courses.

PLAN OF COURSE.

This course is intended for young men who desire to prepare themselves to teach the elements of agriculture in rural schools and who can not take the four-year course for teachers. Instruction is given in English, mathematics, physics, chemistry and in a considerable number of the technical studies of the four-year course; also in school methods and management and in manual training.

TWO-YEAR COURSE FOR TEACHERS.

FIRST YEAR.

Fall.	Hours per week.	Winter.	Hours per week.	Spring.	Hours per week.
Animal Husbandry 1	3	Agriculture 2	3	Agriculture 16	3
Judging.		Dairying.		Farm Crops.	
Botany 1	3	Botany 1	3	Botany 1	3
El. Biology.		El. Biology.		El. Biology.	
English 1	3	English 1	3	English 1	3
Rhetoric and Comp.		Rhetoric and Comp.		Rhetoric and Comp.	
Horticulture 1	3			Horticulture 3	3
Elements.				Truck Gardening.	
Mathematics 11	3	Mathematics 11	3	Mathematics 11	3
Plane Geometry.		Plane Geometry.		Plane Geometry.	
Physics 1	3	Physics 1	3	Physics 1	3
General.		General.		General.	
Horticulture 1	2	Agriculture 2	2	Agriculture 16	2
Animal Husbandry 1	2	Animal Husbandry 2	4	Horticulture 3	2
Botany 1	2	Botany 1	2	Botany 1	2
Mechanical Eng.	2	Mechanical Eng.	4	Mechanical Eng.	2
Physics 1	2	Physics 1	2	Physics 1	2
		Drawing	2		

SECOND YEAR.

Agriculture 3	3	Animal Husbandry 7	3	Agriculture 19	3
Soils.		Feeding.		Farm Management and Equipment.	
Botany 2	3	Botany 2	3	Animal Husbandry 10	3
Syst. Botany.		Syst. Entomology.		Poultry.	
Chemistry 20	3	Chemistry 20	3		
Practical.		Practical.			
Education	3	Education	3	Education	3
School Management.		Methods.			
English 2, 3	3	English 2, 3	3	English 2, 3	3
Literature, Comp.		Literature, Comp.		Literature, Comp.	
Horticulture 4	3	Horticulture 2	3	Horticulture 6	3
Orchards.		Nursery Methods.		Plant Breeding.	
Agriculture 3	2	Animal Husbandry 7	2	Agriculture 19	2
Botany 2	2	Botany 2	2	Animal Husbandry 10	2
Chemistry 20	2	Chemistry 20	2		
Horticulture 4	2	Horticulture 2	2	Horticulture 6	2
Mechanical Eng.	2	Mechanical Eng.	2	Mechanical Eng.	4

THE AGRICULTURAL EXPERIMENT STATIONS.

The Agricultural Experiment Stations seek to find the correct answers to the many problems connected with agriculture through the results they obtain by direct investigation and experimentation. At present there are three stations; the main one, located at College Station, supported by the Hatch fund of the general government, and two sub-stations, one at Troupe, Smith county, and the other at Beeville, Bee county. The results of the experiments at these stations are published in bulletins, of which six were issued during the past year. In addition, much matter relating to more general farm questions was sent out in the form of press bulletins. Supplementing this, the staff of the Stations devote a large portion of their time to answering inquiries which reach them by correspondence and personal interviews.

The Department of Agriculture gives considerable attention to soils. A collection of Texas soils is being added to rapidly to assist in a close study of these. In the field work, testing the different varieties of cereals, grasses and forage plants is the main line of investigation. About forty acres are used by this department for this purpose. Special attention is given to the study of the cotton crop in all its phases. Alfalfa also receives special study.

The Department of Animal Husbandry concerns itself mostly with problems arising from the feeding of Texas steers, sheep and swine on Texas food products. The aim is to make this feature of the work directly useful to the stockman by studying the various relations of the ranch to the feed lot, and the best means of making the most of Texas conditions in the development of our stock interests. Experiments are now under way in feeding steers to determine the feeding values of Kaffir corn, milo maize and molasses as compared with some other feeds hitherto commonly used, but now procurable only at greatly advanced prices, and on Texas grown fodders, alfalfa, sorghum and Spanish peanuts as against the common practice of using cottonseed hulls for roughage. Experiments have been extensively conducted in feeding cottonseed meal, hulls, rice by-products, and molasses. The development of the work will embrace extensive experiments in feeding sheep and swine.

The Department of Horticulture centers its energies chiefly on fruit and vegetable growing. At the main station, the products of the garden have been specially studied, particularly those having a ready market. Extensive experiments have been made in this direction with Irish potatoes, tomatoes, and other crops that meet with ready demand. At the sub-stations the use of fertilizers for the purpose of truck gardening, and the growing of all kinds of vegetables and fruit have been the sub-

ject of experiments. The eastern portion of the State and the central sections have many problems in this work which have to be considered by this department.

The Department of Veterinary Science has rendered the live stock interests valuable service in its researches regarding Southern fever, and the value of inoculation and dipping. The investigations in this direction have been extensive, and the carefulness with which they have been planned and conducted has added much to the prestige of the department among the stockmen. Much work is also done in investigating the common troubles among live stock in Texas.

The Department of Chemistry has established intimate relations with important interests of the State; mainly those connected with the sugar, rice and cotton plantations. The manufacture of sugar cane into syrup, the value of by-products from the rice industry, and the worth of molasses for feeding purposes, have been recently studied from the chemical side.

This resume will indicate how the Experiment Station comes in contact in a vital way with the vast agricultural interests of this immense State. The stockman, whether on a ranch or stock and feeding farm, reaches out to the Veterinary or Animal Husbandry Department for help when troubles or problems confront him; the horticulturist and the truck grower of the southern or central portion of the State make demands on the Department of Horticulture; the immense industries of the coast and cotton country find assistance in the chemical and agricultural departments.

The State Agricultural Experiment Stations, under control of the Board of Directors of the College, are established and maintained by legislative appropriations.

The Beeville Station, established at Beeville, Bee county, in 1895, has given much attention to fruit and vegetable growing and irrigation.

The Troupe Station, established at Troupe, Smith county, in 1902, is located in the heart of the fruit section of East Texas.

There are about 35,000 names on the mailing list. The department is glad to add as many new names as possible, provided they are those of interested persons.

FARMERS' INSTITUTES.

The Farmers' Institutes offer the most effective means of assisting the College and Experiment Stations in bringing the best of their work directly to the attention of the farmers, and they also offer a medium by which the most successful farmers may be helpful to their fellows. The agricultural faculty assist as much as possible in conducting meetings, yet outside assistance is freely drawn upon when an important feature of farm work has received special study and achieved special success by some expert.

COURSES IN ENGINEERING.

(The curricula for all Engineering courses are identical in the Freshman year.)

Note.—The number following the name of a department refers to the number of the course as shown in the description of the department. Practice is indicated by italics.

FRESHMAN YEAR.

Fall.	Hours per week.	Winter.	Hours per week.	Spring.	Hours per week.
Drawing 2	3	Drawing 2	3	Drawing 2	3
Descriptive Geometry.		Descriptive Geometry.		Descriptive Geometry.	
English 1	3	English 1	3	English 1	3
Rhetoric and Comp.		Rhetoric and Comp.		Rhetoric and Comp.	
Mathematics 1, 2	6	Mathematics 3	6	Mathematics 4	6
Geometry, Algebra.		Algebra.		Trigonometry.	
Mechanical Eng. 1, 2	3	Mechanical Eng. 1, 2	3	Mechanical Eng. 1, 2	3
Elementary Mechanics,		Elementary Mechanics,		Elementary Mechanics,	
Shop Lectures.		Shop Lectures.		Shop Lectures.	
Physics 3	2	Physics 3	2	Physics 3	2
Elementary.		Elementary.		Elementary.	
<i>Drawing 1</i>	4	<i>Drawing 2, 3</i>	4	<i>Drawing 2, 3</i>	4
<i>Mech. Eng. 13 or 14</i>	6	<i>Mech. Eng. 13, 14</i>	6	<i>Mech. Eng. 14 or 13</i>	6
<i>Physics 3</i>	2	<i>Physics 3</i>	2	<i>Physics 3</i>	2

COURSES IN ARCHITECTURE AND IN ARCHITECTURAL ENGINEERING.

These courses are intended to prepare the graduate to enter the profession of architect, of architectural engineer, or of builder; they are also intended for young men who desire a technical education in order to fit themselves for engaging in commercial enterprises related to building construction, such as the manufacture or sale of building materials, and the erection, operation, or insurance of buildings.

The two courses are identical in the Freshman, Sophomore and Junior years. In the Senior year, in the course of architecture, especial attention is paid to the aesthetic side of an architect's work, while in the course in architectural engineering, the construction features are given prominence. A student may, therefore, in his fourth year, choose between these two branches of architecture according to his inclination and aptitude.

IX—COURSE IN ARCHITECTURE.

Note.—The number following the name of a department refers to the number of the course shown in the description of that department. Practice is indicated by italics.

FRESHMAN YEAR.

See page 53.

SOPHOMORE YEAR.

Fall.	Hours per week.	Winter.	Hours per week.	Spring.	Hours per week.
Architectural Eng. 1	1	Architectural Eng. 1	1		
Building Construction.		Building Construction.			
Architectural Eng. 2	2	Architectural Eng. 2	2	Civil Engineering 1	3
History of Architecture.		History of Architecture.		Surveying and Leveling.	
English 2, 3	3	English 2, 3	3	English 2, 3	3
Literature, Comp.		Literature, Comp.		Literature, Comp.	
Military Science 1	1	Military Science 1	1	Military Science 1	1
Drill Regulations.		Drill Regulations.		Drill Regulations.	
Mathematics 5	6	Mathematics, 5, 6	6	Mathematics 6	6
Analytics.		Analytics, Calculus.		Calculus.	
Physics 4	3	Physics 4	3	Physics 4	3
General.		General.		General.	
<i>Drawing 4, 5, 6</i>	5	<i>Architectural Eng. 1, 3</i>	8	<i>Architectural Eng. 3</i>	4
<i>Physics 4</i>	2	<i>Physics 4</i>	2	<i>Physics 4</i>	2
				<i>Civil Engineering 1</i>	4

JUNIOR YEAR.

Architectural Eng. 4	1	Architectural Eng. 4	2	Architectural Eng. 4	2
Building Construction.		Building Construction.		Building Construction.	
Architectural Eng. 5	2	Architectural Eng. 7	2	Architectural Eng. 8	2
History of Architecture.		History of Ornament.		Materials of Const.	
Chemistry 1	3	Chemistry 1	3	Chemistry 1	3
Inorganic.		Inorganic.		Inorganic.	
Civil Engineering 4	3	Civil Engineering 4	3	Civil Engineering 9	3
Mechanics of Materials.		Mechanics of Materials.		Stresses.	
English 5	1	English 5	1	English 5	1
Argumentation.		Argumentation.		Argumentation.	
Languages 1 or 3	3	Languages 1 or 3	3	Languages 1 or 3	3
French or German.		French or German.		French or German.	
Mathematics 7	3	Electrical Eng. 9	1		
Practical.		Lighting and Wiring.			
<i>Architectural Eng. 6</i>	4	<i>Architectural Eng. 6</i>	4	<i>Architectural Eng. 6</i>	4
<i>Chemistry 1</i>	2	<i>Chemistry 2</i>	2	<i>Chemistry 2</i>	2
		<i>Civil Engineering 4</i>	2	<i>Civil Engineering 9</i>	4
<i>Drawing 9, 10</i>	4	<i>Drawing 9, 10</i>	4	<i>Drawing 9, 10</i>	4

SENIOR YEAR.

Architectural Eng. 9	2	Architectural Eng. 12	3	Architectural Eng. 15	2
Heating and Ventilating.		Building Construction.		Building Sanitation.	
Civil Engineering 9	3	Botany 6	1	Architectural Eng. 16	1
Stresses.		Sanitary Science.		Business Practice.	
		Chemistry 13	3	Chemistry 13	3
History 3	3	Geology.		Geology.	
Economics.		History 3	3	History 3	3
Languages 2 or 4	3	Economics.		Economics.	
French or German.		Languages 2 or 4	3	Languages 2 or 4	3
Mechanical Eng. 5	3	French or German.		French or German.	
Steam Boilers.					
Military Science 2	1				
<i>Arch. Eng. 9, 10, 20</i>	8	<i>Architectural Eng. 14</i>	12	<i>Architectural Eng. 14</i>	12
				<i>Chemistry 13</i>	2
<i>Civil Engineering 9</i>	4	<i>Drawing 11</i>	2	<i>Drawing 11</i>	2

VII—COURSE IN ARCHITECTURAL ENGINEERING.

Note.—The number following the name of a department refers to the number of the course as shown in the description of that department. Practice is indicated by italics.

The curriculum for the Freshman, Sophomore and Junior years is identical with that of the course in Architecture. See pages 53, 55.

SENIOR YEAR.

Fall.	Hours per week.	Winter.	Hours per week.	Spring.	Hours per week.
Architectural Eng. 9	2	Architectural Eng. 9	2	Architectural Eng. 16	1
Heating and Ventilating.		Heating and Ventilating.		Business Practice.	
		Architectural Eng. 12	3	Architectural Eng. 12	3
		Building Construction.		Building Construction.	
Civil Engineering 9	3	Botany 6	1	Architectural Eng. 15	2
Stresses.		Sanitary Science.		Building Sanitation.	
		Chemistry 13	3	Chemistry 13	3
		Geology.		Geology.	
History 3	3	History 3	3	History 3	3
Economics.		Economics.		Economics.	
Languages 2 or 4	3	Languages 2 or 4	3	Languages 2 or 4	3
French or German.		French or German.		French or German.	
Mechanical Eng. 5	3				
Steam Boilers.					
Military Science 2	1				
Arch. Eng. 9, 10, 11	8	Arch. Eng. 9, 13	10	Architectural Eng. 13	8
Civil Engineering 9	4			Chemistry 13	2

The courses in Architectural Engineering are as follows:

1. Building Construction. Sophomore. Fall, Winter, 1 hour a week; with practice.

Carpenter's work and Building Hardware.

Practice, Winter, 4 hours a week. Working drawings of buildings and building details.

Architectural Drawings, *Edminster*.

Prerequisite, *Drawing 15*.

2. History of Architecture. Sophomore. Fall, Winter, 2 hours a week.

Egyptian, Western Asiatic, Greek, Roman, Early Christian, Byzantine, Romanesque, and Gothic Architecture. History of Architecture, *Fletcher*.

3. Architectural Design. Sophomore. Winter, Spring, 4 hours a week. Practice.

The classic orders of architecture.

Prerequisite, *Drawing 15* and *Architectural Engineering 2*.

4. Building Construction. Junior. Fall, 1 hour; Winter, Spring, 2 hours a week.

Masons,' Plasterers' and Painters' work; Estimates and Specifications.

5. History of Architecture. Junior. Fall, 2 hours a week.

Renaissance and Modern Architecture. History of Architecture, *Fletcher*.

Prerequisite, *Architectural Engineering 3*.

6. Architectural Design. Junior. Fall, Winter, Spring, 4 hours a week. Practice.

A study of classic buildings.

Prerequisite, *Architectural Engineering 3*.

7. History of Ornament. Junior. Winter, 2 hours a week.

The historical development of architectural ornament.

Prerequisite, *Architectural Engineering 5*.

8. Materials of Construction. Junior. Spring, 2 hours a week.

Manufacture, use and care of building materials.

9. Heating and Ventilating. Senior. Fall, Winter, 2 hours a week; with practice.

The general principles of heating and ventilating and calculation of heating surfaces, of water and steam pipes and of air ducts.

Practice, 2 hours a week. Design of heating systems.

10. Architectural Design. Senior. Fall, 4 hours a week. Practice.

Periodical problems in design.

Prerequisite, *Architectural Engineering 6*.

11. Constructive Design. Senior. Fall, 2 hours a week. Practice.

Architectural construction in wood and iron.

Prerequisite, *Civil Engineering 4*.

12. Building Construction. Senior. Winter, Spring, 3 hours a week.

Iron and steel construction and fire proofing; masonry and reinforced concrete construction.

13. Constructive Design. Senior. Winter, Spring, 8 hours a week. Practice.

Architectural construction in steel, masonry, and reinforced concrete.

Prerequisite, *Architectural Engineering 11*.

14. Architectural Design. Senior. Winter, Spring, 12 hours a week.

A continuation of Course 10, which is a prerequisite.

15. Building Sanitation. Senior. Spring, 2 hours a week.

Water supply, drainage, sewage disposal, and plumbing for buildings.

16. Business Practice. Senior. Spring, 1 hour a week.

The duties and responsibilities of the architect and his relation to architects, clients, and contractors.

COURSE IN CHEMICAL ENGINEERING.

This course is designed to educate young men as analysts or chemical engineers, an option between technical analysis and advanced industrial chemistry being given in the Senior year for this purpose. The work of the analyst is indicated by that of State and city chemists, who are charged with the enforcement of laws concerning the purity of foods, feeds, fertilizers, drinking waters, and other substances. The proprietor of a private laboratory analyzes miscellaneous substances for individuals. Every chemical establishment requires the services on one or more analysts to exercise chemical control over the plant, repeatedly analyzing the raw materials and the intermediate and finished products. This is done, for example, in the cement industry, in the sugar industry, and in the refining of cottonseed oil. The work of the chemical engineer properly so called is to manage chemical establishments like those just referred to, adapting chemical processes to varying conditions and improving upon them as occasion requires. Aside from their chemical studies, the students in this course devote most of their time to mathematics, physics, mechanics, and other engineering subjects.

VIII.—COURSE IN CHEMICAL ENGINEERING.

Note.—The number following the name of a department refers to the number of the course as shown in the description of that department. Practice is indicated by italics.

FRESHMAN YEAR.

See page 53.

SOPHOMORE YEAR.

Fall.	Hours per week.	Winter.	Hours per week.	Spring.	Hours per week.
Chemistry 1	3	Chemistry 1	3	Chemistry 1	3
Inorganic.		Inorganic.		Inorganic.	
English 2, 3	3	English 2, 3	3	English 2, 3	3
Literature, Comp.		Literature, Comp.		Literature, Comp.	
History 2	2	History 2	2	History 2	2
English.		English.		English.	
Mathematics 5	6	Mathematics 5, 6	6	Mathematics 6	6
Analytics.		Analytics, Calculus.		Calculus.	
Military Science 1	1	Military Science 1	1	Military Science 1	1
Drill Regulations.		Drill Regulations.		Drill Regulations.	
Physics 4	3	Physics 4	3	Physics 4	3
General.		General.		General.	
<i>Chemistry 1</i>	4	<i>Chemistry 2</i>	4	<i>Chemistry 2</i>	4
<i>Drawing 4, 6</i>	4	<i>Drawing 7</i>	4	<i>Drawing 7</i>	4
<i>Physics 4</i>	2	<i>Physics 4</i>	2	<i>Physics 4</i>	2

JUNIOR YEAR.

Civil Engineering 5	3	Civil Engineering 6	3	Civil Engineering 6	3
Mechanics of Materials.		Hydraulics.		Hydraulics.	
Chemical Eng. 1	3	Chemical Eng. 3	3	Chemical Eng. 4	3
Ind. Inorganic.		Metallurgy.		Ind. Organic.	
Chemistry 6	3	Chemistry 7	3	Chemistry 7	3
Economic Geology.		Organic.		Organic.	
English 5	1	English 5	1	English 5	1
Argumentation.		Argumentation.		Argumentation.	
Mechanical Eng. 3	3	Mechanical Eng. 3	3	Mechanical Eng. 4	3
El. Steam Eng.		El. Steam Eng.		Kinematics.	
Mathematics 7	3	Electrical Eng. 3	3	Electrical Eng. 3	3
Practical.		Electrical Machinery.		Electrical Machinery.	
<i>Chemistry 6</i>	2	<i>Chemistry 7</i>	2	<i>Chemistry 7</i>	2
<i>Chemical Eng. 2</i>	4	<i>Chemical Eng. 2</i>	4	<i>Chemical Eng. 5</i>	4
		<i>Civil Engineering 5</i>	2		
<i>Mechanical Eng. 15</i>	4	<i>Mechanical Eng. 22</i>	2	<i>Electrical Eng. 3</i>	4

SENIOR YEAR.

Chemical Eng. 6	3	Chemical Eng. 6	3	Chemical Eng. 9	3
Physical Chem.		Physical Chem.		Electro-Chemistry.	
Chemical Eng. 7 or 8	2	Chemical Eng. 7 or 8	2	Chemical Eng. 9 or 8	2
Adv. Industrial Chem- istry or Technical Analysis.		Adv. Industrial Chem- istry or Technical Analysis.		Adv. Industrial Chem- istry or Technical Analysis.	
Civil Engineering 12	3	Chemistry 14	1	Chemistry 14	1
Water Supply Eng.		History.		History.	
History 3	3	History 3	3	History 3	3
Economics.		Economics.		Economics.	
Military Science 2	1				
Mechanical Eng. 5	3	Mechanical Eng. 7	3	Mechanical Eng. 7	3
Steam Boilers.		Steam Engine.		Steam Engine.	
		Mechanical Eng. 9	3	Mechanical Eng. 9	3
		Eng. Mechanics.		Eng. Mechanics.	
<i>Chemical Eng. 6</i>	2	<i>Chemical Eng. 6</i>	2	<i>Chemical Eng. 6</i>	2
<i>Chemical Eng. 7 or 8</i>	6	<i>Chemical Eng. 7 or 8</i>	4	<i>Chemical Eng. 9 or 8</i>	6
<i>Mechanical Eng. 27</i>	2	<i>Mechanical Eng. 27</i>	2	<i>Mechanical Eng. 27</i>	2

DEPARTMENT OF CHEMISTRY AND MINERALOGY.**CHEMICAL ENGINEERING.**

PROFESSOR BLAKE.

DR. MACDOUGALL.

MR. NELSON.

The beginning work of the course in Chemical Engineering is described under the Department of Chemistry and Mineralogy, page 100. The additional chemical subjects are described below. Chemistry and Chemical Engineering today cover such a broad field that in the Senior year students are advised to specialize in some branch of technical analysis or chemical manufacturing. All of the work is supplemented by laboratory work. The chemical industries most highly developed in this State will be inspected from time to time.

The courses in Chemical Engineering are as follows:

1. Industrial Inorganic Chemistry. Junior. Fall, 3 hours a week.

This is an introductory course, covering the principal applications of chemical processes in the manufacture of inorganic products. Methods of manipulation are first studied. The manufacture and use of the principal acids, alkalis and salts is then taken up, followed by that of fertilizers, lime and cement, ceramics, and electric-furnace products. Lectures and recitations. Outlines of Industrial Chemistry, *Thorp*.

Prerequisite, *Chemistry 1*. (Required in Courses III and VIII.)

2. Quantitative Analysis. Junior, Fall, Winter, 4 hours a week. Practice.

This course serves as an introduction to the methods of exact analysis, typical inorganic substances being used, such as iron, sulphuric acid, silver and chlorine. The work is at first gravimetric, then volumetric. Quantitative Chemical Analysis, *Talbot*.

Prerequisite, *Chemistry 2*. (Required in Course VIII.)

3. Metallurgy of Iron and Steel. Junior. Winter, 3 hours a week.

In this course the metallurgy of iron and the manufacture of steel are considered in detail, especial attention being given the nature and location of valuable iron ore deposits, together with suitable fluxes; to the nature and availability of proper fuels, together with the furnaces used; to the constitution of the resulting pig iron and the manufacture of steel therefrom; and finally to the chemistry of the different kinds of steel and their adaptability in engineering practice. Lectures and recitations. The Metallurgy of Iron and Steel, *Stoughton*.

Prerequisite, *Chemistry 1*. (Required in Courses III and VIII.)

4. Industrial Organic Chemistry. Junior. Spring, 3 hours a week.

In this course the organic chemical industries are taken up, including wood distillation, gas manufacture, petroleum industry, soap industry, starch and sugar industries, and the manufacture of paper, leather, and explosives. Lectures and recitations, with a tour of inspection and a written thesis, in conjunction with the work of Courses 1, 3. Outlines of Industrial Chemistry, *Thorp*.

Prerequisite, *Chemical Engineering 1*. (Required in Courses III and VIII.)

5. Silicate Analysis. Junior. Spring, 4 hours a week. Practice.

A silicate is to be analyzed for all its constituents until checking duplicate determinations are obtained. The Analysis of Silicate and Carbonate Rocks, *Hillebrand*.

Prerequisite, *Chemical Engineering 2*. (Required in Course VIII.)

6. Physical Chemistry. Senior. Fall, Winter, 3 hours a week; with practice.

This course presents, wherever known, physical explanations of chemical and allied phenomena, together with a mathematical exposition of the laws involved. Some of the subjects thus developed are the atomic theory, the periodic law, solubility, fusion, vaporization, the phase rule, dissociation in solution, chemical equilibrium, and relative chemical activity. It leads up to a consideration of the best research work of today. Lectures and recitations. Most of the theoretical conclusions deduced in the class room are confirmed in the laboratory. Introduction to Physical Chemistry, *Walker*.

Practice, Fall, Winter, 2 hours a week.

Prerequisite, *Chemical Engineering 4*; *Mathematics 6*.

(Required in Course VIII.)

***9. Advanced Industrial Chemistry. Senior. Fall, Winter, Spring, 2 hours a week; with practice.**

This course consists of lectures and conferences with regard to methods and problems in industrial chemistry. The efficiency of processes and plants, the advisability of replacing old processes by new, the evaluation of rocks, clays, coals and petroleum, the economic and commercial aspects of particular cases, with particular reference to the future development of the chemical industries in this State, all receive attention.

Practice, Fall, Spring, 6 hours; Winter, 4 hours a week.

The practice in this course will consist in running the working models of the various chemical industries, which will be installed in the labo-

*Not to be given in session 1910-11.

ratory, together with researches carried out with the same models. These will include apparatus for making sulphuric acid by the chamber process and by the contact method; for refining and bleaching cottonseed oil, and others not yet determined upon.

Prerequisite, *Chemical Engineering 5*. (Elective in Course VIII.)

8. Technical Analysis. Senior. Fall, Winter, Spring, 2 hours a week; with practice.

This course consists of lectures and conferences with regard to technical methods of analysis, especially in exercising chemical control over industrial plants, such as cement manufacturing, the cottonseed oil industry, and the sugar industry. After studying various methods in general, the student will take up some one system of chemical control and master it, so that he might creditably enter the works as a control chemist in his chosen line.

The nature of this work is inadequately represented by the time allotted to it. The methods of exact analysis require an intelligent, painstaking supervision not limited by time allotments. The degree to which this fact is appreciated by the student determines his value as an analyst. The technical journals and official methods will frequently be consulted by the student.

Practice, 6 hours a week, Fall and Spring; 4 hours a week, Winter.

Prerequisite, *Chemical Engineering 5*. (Elective in Course VIII.)

7. Electro-Chemistry. Senior. Spring, 3 hours a week; with practice.

Electrolytic methods are now used on the large scale for the extraction and refining of the precious metals and most of the heavy and alkali metals. Electric-furnace products, electrolytic processes of oxidation and reduction, the synthesis of organic compounds, together with electrolytic methods of analysis and the older processes of electroplating all render this course an important application of the principles of physical chemistry. Practical Electro-Chemistry, *Blount*.

Practice, 2 hours a week.

Prerequisite, *Chemical Engineering 6*. (Required in Course VIII.)

The practice in this course consists largely of electrolytic methods of analysis, together with electroplating and confirmation of principles discussed in the class.

EQUIPMENT.

Besides the equipment described under the Department of Chemistry, page 100, this department is provided with a separate room for technical analysis and one for advanced industrial chemistry. The latter is not yet fully equipped. The former is provided with vacuum and com-

pressed air systems, colorimeters, calorimeters, refractometers, Lovibond tintometer, combustion furnaces, gas burettes and other special apparatus used in technical analysis. The laboratory has the usual equipment for work in physical chemistry, including a still for conductivity water and a direct current at 180 volts.

COURSE IN CIVIL ENGINEERING.

This course is designed to prepare young men for entrance upon professional practice in such work as the location, construction and maintenance of highways, railroads, streets and pavements, waterworks systems, sewerage systems, irrigation canals and ditches, reservoirs, bridges, masonry structures; the surveying and mapping of areas; drafting. A thorough grounding in the principles underlying engineering construction is given with the application of these principles to as many special lines as time will permit. In addition to this technical training, the student also receives instruction in general studies and in the sciences; and a liberal amount of time is devoted to drawing to enable him properly to represent his designs and other engineering work on paper.

The fifth year, leading to the degree of Civil Engineer, offers opportunity for more advanced study in some of the branches of Civil Engineering than can be had within the limits of the four-year course, and includes some elective work in subjects offered by departments other than that of Civil Engineering. While a bachelor's degree is conferred at the end of the four years, every student should follow this, when possible, with the more technical course covered by the fifth year's work.

IV.—COURSE IN CIVIL ENGINEERING.

Note.—The number following the name of a department refers to the number of the course as shown in the description of that department. Practice is indicated by italics.

FRESHMAN YEAR.

See page 53.

SOPHOMORE YEAR.

Fall.	Hours per week.	Winter.	Hours per week.	Spring.	Hours per week.
Civil Engineering 1	3	Civil Engineering 2	3	Civil Engineering 3	3
Surveying and Leveling.		Roads.		Topog. and Railroad.	
English 2, 3	3	English 2, 3	3	English 2, 3	3
Literature, Comp.		Literature, Comp.		Literature, Comp.	
History 2	2	History 2	2	History 2	2
English.		English.		English.	
Military Science 1	1	Military Science 1	1	Military Science 1	1
Drill Regulations.		Drill Regulations.		Drill Regulations.	
Mathematics 5	6	Mathematics 5, 6	6	Mathematics 6	6
Analytics.		Analytics, Calculus.		Calculus.	
Physics 4	3	Physics 4	3	Physics 4	3
General.		General.		General.	
<i>Civil Engineering 1</i>	4	<i>Civil Engineering 1</i>	4	<i>Civil Engineering 3</i>	4
<i>Drawing 4, 6</i>	4	<i>Drawing 7</i>	4	<i>Drawing 7</i>	4
<i>Physics 4</i>	2	<i>Physics 4</i>	2	<i>Physics 4</i>	2

JUNIOR YEAR.

Chemistry 1	3	Chemistry 1	3	Chemistry 1	3
Inorganic.		Inorganic.		Inorganic.	
Civil Engineering 3	3	Civil Engineering 6	3	Civil Engineering 6	3
Railroad.		Hydraulics.		Hydraulics.	
Civil Engineering 4	3	Civil Engineering 4	3	Civil Engineering 8	3
Mechanics of Materials.		Mechanics of Materials.		Roofs and Bridges.	
English 5	1	Electrical Eng. 3	3	Electrical Eng. 3	3
Argumentation.		Electrical Machinery.		Electrical Machinery.	
Mechanical Eng. 3	3	English 5	1	English 5	1
El. Steam Eng.		Argumentation.		Argumentation.	
Mathematics 7	3	Mechanical Eng. 3	3	Civil Engineering 11	3
Practical.		El. Steam Eng.		Irrigation and Drain.	
<i>Chemistry 1</i>	2	<i>Chemistry 2</i>	2	<i>Chemistry 2</i>	2
<i>Civil Engineering 3, 7</i>	6	<i>Civil Engineering 4, 7</i>	4	<i>Civil Engineering 5, 7</i>	4
<i>Drawing 8</i>	2	<i>Mechanical Eng. 26</i>	4	<i>Electrical Eng. 3</i>	4

SENIOR YEAR.

Civil Engineering 8	3	Civil Engineering 8	3	Civil Engineering 19	3
Roofs and Bridges.		Roofs and Bridges.		Higher Structures.	
Civil Engineering 12	3	Civil Engineering 15	3	Civil Engineering 16	3
Water Supply.		Sewerage.		Least Squares and Geodesy.	
Civil Engineering 13	3	Civil Engineering 16	3	Civil Engineering 17	3
Masonry Structures.		Least Squares and Geodesy.		Reinforced Concrete Construction.	
Civil Engineering 14	3				
Contracts and Specifications.					
History 3	3	History 3	3	History 3	3
Economics.		Economics.		Economics.	
Military Science 2	1	Chemistry 13	3	Chemistry 13	3
		Geology.		Geology.	
<i>Civil Eng. 8, 18</i>	10	<i>Civil Eng. 8, 18</i>	10	<i>Civil Eng. 8, 18, 19</i>	8
				<i>Chemistry 13</i>	2

DEPARTMENT OF CIVIL ENGINEERING.

PROFESSOR NAGLE.

PROFESSOR SPENCE.

ASSISTANT PROFESSOR POTTS.

Instruction in this department is based upon the use of good text-books, supplemented by lectures or explanations in the class room and by practice in the field and testing laboratories, and in the drafting room. Many problems are assigned the student in order that the underlying principles involved in their solution may be more thoroughly impressed upon him. Effort is made to develop appreciation of the degree of precision required in different kinds of work, and of the conditions under which approximate methods are desirable or admissible. Throughout the instruction work in this department a thorough understanding of the basic principles involved in a few fundamental engineering subjects is preferred to a more superficial introduction to many different subjects.

The courses are as follows:

1. Plane Surveying and Leveling. 3 hours a week for one term; with practice.

This course covers instruction in the use and adjustments of the compass, transit, level and minor surveying instruments.

Practice, 2 or 4 hours a week. The amount of time devoted to this practice varies from 2 hours a week for one term to 4 hours a week for two terms in the several curricula in which it is required. It includes the adjustment and use of the compass, transit and level in their application to as many problems in the field as the time allowed will permit. Elements of Plane Surveying, *Barton*.

Prerequisite, *Mathematics 4*.

2. Roads and Pavements. Sophomore. Winter, 3 hours a week.

The principles of road building and the construction of city pavements are covered in this course. (Required only in Course IV.)

A Treatise on Roads and Pavements, *Baker*.

Prerequisite, *Civil Engineering 1*.

3. Topographic Surveying, Railroad Engineering. Sophomore, Spring; Junior, Fall; 3 hours a week; with practice.

In topographic surveying no special text is required, but the principles involved are presented by the instructor and illustrated by the practice required. In railroad engineering, reconnoissance, location and construction are treated, simple and transition curves receiving much attention. These, and slope-staking are illustrated by work in the field.

Field Manual for Railroad Engineers, *Nagle*.

Practice, 4 hours a week. Application of the methods involved in the use of the transit and stadia are made in the earlier part of the course, with some work with the plane table when time permits. Most of the time available is devoted to curve problems in railroad engineering, and to the preliminary survey, location and slope-staking of a short line. Quantities are computed from the data found in the field.

Prerequisite, *Civil Engineering 1*.

4. **Mechanics of Materials. Junior. Fall, Winter, 3 hours a week; with practice.**

This course covers a treatment of the resistance of materials and mechanics of beams, columns, shafts, etc.

Mechanics of Materials, *Merriman*.

Practice, Winter, 2 hours a week. Determination of the strength of materials in testing laboratory. Various tests of the qualities of timbers, metals, cement, etc., must be made by the student and reports submitted showing results.

Prerequisite, *Mathematics 6*.

(Required in Courses III, IV, V, VII.)

5. **Mechanics of Materials. Junior. Fall, 3 hours a week; with practice.**

An abbreviation of Course 4.

Practice, Winter, 2 hours a week.

Prerequisite, *Mathematics 6*.

(Required in Course VIII.)

6. **Hydraulics. Junior. Winter, Spring, 3 hours a week; with practice.**

This course covers a treatment of the laws governing water at rest and in motion, as connected with engineering construction.

Treatise on Hydraulics, *Merriman*.

Practice, Spring, 2 hours a week. Students will be required to calibrate weirs, nozzles, pressure gauges, etc., and to make efficiency tests on impulse and other forms of hydraulic motors during this time.

Prerequisite, *Mathematics 6, Civil Engineering 1, 4*.

7. **Graphics. Junior. Fall, Winter, Spring, 2 hours a week. Practice.**

Roofs and Bridges, Part II. *Merriman and Jacoby*.

(Required in Course IV.)

8. **Roofs and Bridges. Junior, Spring; Senior, Fall, Winter; 3 hours a week; with practice.**

The stresses in ordinary roofs and bridges and the design of simple

trusses are treated during the first three terms. In the last term stresses in higher structures are discussed.

Roofs and Bridges. Parts I, II, III. *Merriman and Jacoby*.

Practice, Senior. Fall, Winter, 8 hours; Spring, .4 hours a week. Each student must compute the stresses due to given loads in various structures and afterwards make the necessary designs, including the representation of his design on paper.

Prerequisite, *Mathematics 6, Civil Engineering 4*.

9. Stresses. Junior, Spring; Senior, Fall, 3 hours a week; with practice.

Roofs and Bridges. Parts I and II. *Merriman and Jacoby*.

Practice, 4 hours a week.

(Required in Courses VII and IX.)

10. Stresses. Junior. Spring, 3 hours a week.

An abbreviation of Course 9.

Practice, 2 hours a week.

(Required in Course III.)

11. Irrigation and Land Drainage. Junior. Spring, 3 hours a week.

Applications of the principles of hydraulics are made in this course, and the methods of collecting and distributing water to lands under irrigation are discussed. Existing irrigation methods and systems are reviewed.

Manual of Irrigation Engineering, *Wilson*.

Prerequisite, *Civil Engineering 6*, first term.

12. Water Supply Engineering. Senior. Fall, 3 hours a week.

This course discusses the collection, pumping, storage, purification and distribution of potable waters.

Water Supply Engineering, *Folwell*.

Prerequisite, *Civil Engineering 6*.

13. Masonry Structures. Senior. Fall, 3 hours a week.

The principles of masonry construction in general are covered in this course, except as applied to reinforced concrete.

Treatise on Masonry Construction, *Baker*.

Prerequisite, *Civil Engineering 4*.

14. Contracts and Specifications. Senior. Fall, 3 hours a week.

This course covers discussions of the principles involved in contract making, from the engineer's standpoint.

Engineering Contracts and Specifications, *Johnson*.

Prerequisite for civil engineering students, *Civil Engineering* 1, 4.

15. Sewerage. Senior. Winter, 3 hours a week.

The questions of proper methods of draining and sewerage cities, and the disposal of the sewage, receive attention in this course.

Sewerage, *Folwell*.

Prerequisite, *Civil Engineering* 6.

16. Least Squares and Geodesy. Senior. Winter, Spring, 3 hours a week.

Recitation work, supplemented by base line measurements, triangulation, etc., as available time will permit.

The practice work will be covered by *Civil Engineering* 18.

Prerequisite, *Mathematics* 6, *Civil Engineering* 1, 3.

17. Reinforced Concrete Construction. Senior. Spring, 3 hours a week.

The theory of stress distribution and various methods of reinforcement employed in the construction of beams, columns, arches, etc., are discussed and illustrative examples studied.

Principles of Reinforced Concrete Construction, *Turneaure and Maurer*.

Prerequisite, *Civil Engineering* 4.

18. Field and Laboratory Work. Senior. Fall, Winter, Spring, 2 hours a week. Practice.

General practice in the field, drafting room and laboratory. To accompany Courses 16 and 19.

19. Higher Structures. Senior. Spring, 3 hours a week; with practice.

Roofs and Bridges. Part IV. *Merriman and Jacoby*.

Practice, 2 hours a week.

31. Astronomy. Theory, 3 hours a week for one term.

This course comes in the fifth-year work for students who hold Bachelor's degrees under the curricula given in earlier catalogues. It embraces recitations and such field observations as the equipment and time available will permit.

General Astronomy, *Young*.

32. Higher Structures, Bridge and Structural Designing. Theory, 3 hours a week for three terms.

Required of fifth-year students graduating under entrance require-

ments of previous catalogues. Practice in the drafting room must be taken, as described in *Civil Engineering* 18.

Roofs and Bridges. Parts III and IV. *Merriman and Jacoby*.

33. **General Civil Engineering.** Theory, 3 hours a week for two terms.

For fifth-year students entering under requirements of previous catalogues. The subject offered will depend upon the character of instruction best fitted for particular cases.

EQUIPMENT.

The department occupies a portion of the Civil Engineering Building and has three recitation rooms, two drafting rooms, a model room, library room and three offices on the second floor. In the basement is the instrument room, general testing laboratory, hydraulic laboratory, cement laboratory and a store room.

For field and office work the equipment consists of nine engineer's and surveyor's transits; one city transit; one pocket transit; six wye levels; one precise level; three dumpy levels; one architect's level; one terracing level; three hand levels; one solar compass; four needle compasses; sextant; plane table; two aneroid barometers; three planimeters; pantograph; universal drafting machine; two reckoning machines; Thacher calculating instrument; Fuller slide rule; sewer slide rule; structural engineer's slide rule; two stadia slide rules, and more than a dozen 10-inch slide rules; a Colby topographical protractor, vernier protractor and several small protractors. A good assortment of chains, tapes, pins, flag poles, etc., for field work and sufficient drafting tables, T squares, triangles and drafting instruments for the drafting rooms are provided.

In the testing laboratories there are three cement testing machines, together with sieves, molds, Vicat and Gillmore's needles, balances, etc., necessary for the proper testing of the qualities of cements. There is one 100,000-pound, power operated, general testing machine; one 20,000-pound, hand operated, machine; one torsion machine; one rumbler for testing paving brick, etc. For hydraulic experiments the equipment will be increased as soon as possible, but now there are weirs, pressure gauges, meters, measuring tanks, hook gauges and two types of impulse motors available for use, together with platform and other scales, and appliances for making hydraulic measurements.

The department library contains engineering books, periodicals, blue prints, etc., and is kept constantly open for the use of students during the session.

COURSE IN ELECTRICAL ENGINEERING.

The course in electrical engineering is designed to give the student a working knowledge of general electric engineering, and to fit him for professional work in the various branches of applied electricity.

The rapidly increasing number of electrical plants and circuits for power transmission, lighting, transportation, telephoning, and telegraphing demands men who are prepared to design, construct and operate them. The studies in the course outlined have been carefully selected with this demand in view.

V.—COURSE IN ELECTRICAL ENGINEERING.

Note.—The number following the name of a department refers to the number of the course as shown in the description of that department. Practice is indicated by italics.

FRESHMAN YEAR.

See page 53.

SOPHOMORE YEAR.

Fall.	Hours per week.	Winter.	Hours per week.	Spring.	Hours per week.
Electrical Eng. 1	3	Electrical Eng. 1	3	Electrical Eng. 1	3
Electrical Meas.		Electrical Meas.		Electrical Meas.	
English 2, 3	3	English 2, 3	3	English 2, 3	3
Literature, Comp.		Literature, Comp.		Literature, Comp.	
History 2	2	History 2	2	History 2	2
English.		English.		English.	
Military Science 1	1	Military Science 1	1	Military Science 1	1
Drill Regulations.		Drill Regulations.		Drill Regulations.	
Mathematics 5	6	Mathematics 5, 6	6	Mathematics 6	6
Analytics.		Analytics, Calculus.		Calculus.	
Physics 4	3	Physics 4	3	Physics 4	3
General.		General.		General.	
<i>Drawing</i> 4, 6	4	<i>Drawing</i> 7	4	<i>Drawing</i> 7	4
<i>Mechanical Eng.</i> 15	4	<i>Electrical Eng.</i> 1	4	<i>Electrical Eng.</i> 1	4
<i>Physics</i> 4	2	<i>Physics</i> 4	2	<i>Physics</i> 4	2

JUNIOR YEAR.

Chemistry 1	3	Chemistry 1	3	Chemistry 1	3
Inorganic.		Inorganic.		Inorganic.	
Civil Engineering 4	3	Civil Engineering 4	3	Civil Engineering 1	3
Mechanics of Materials.		Mechanics of Materials.		Surveying and Leveling.	
Electrical Eng. 2	3	Electrical Eng. 2	3	Electrical Eng. 2	3
Direct Current Machinery.		Direct Current Machinery.		Direct Current Machinery.	
		Electrical Eng. 4	3	Electrical Eng. 4	3
		Telephone Engineering.		Telephone Engineering.	
English 5	1	English 5	1	English 5	1
Argumentation.		Argumentation.		Argumentation.	
Mathematics 7	3				
Practical.					
Mechanical Eng. 3	3	Mechanical Eng. 3	3	Mechanical Eng. 4	3
El. Steam Eng.		El. Steam Eng.		Kinematics.	
<i>Chemistry</i> 1	2	<i>Chemistry</i> 2	2	<i>Chemistry</i> 2	2
		<i>Civil Engineering</i> 4	2	<i>Civil Engineering</i> 1	2
<i>Electrical Eng.</i> 2	4	<i>Electrical Eng.</i> 2	4	<i>Electrical Eng.</i> 2, 4	6
<i>Mechanical Eng.</i> 24	4	<i>Mechanical Eng.</i> 24	2		

SENIOR YEAR.

Electrical Eng. 5	3	Electrical Eng. 5	3	Electrical Eng. 5	3
Alternating Currents.		Alternating Currents.		Alternating Currents.	
Civil Engineering 14	3	Electrical Eng. 7	3	Electrical Eng. 7	3
Contracts and Specifications.		Elec. Ry. Economics.		Elec. Ry. Economics.	
→ Electrical Eng. 6	3	Electrical Eng. 6	3	Electrical Eng. 6	3
Electrical Designing.		Electrical Designing.		Electrical Designing.	
History 3	3	History 3	3	History 3	3
Economics.		Economics.		Economics.	
Mechanical Eng. 5	3	Mechanical Eng. 8	3	Electrical Eng. 8.	3
Steam Boilers.		Steam Engine.		El. Power Distribution.	
Military Science 2	1				
<i>Electrical Eng.</i> 5, 6	8	<i>Electrical Eng.</i> 5, 6	8	<i>Electrical Eng.</i> 5, 6	8
<i>Mechanical Eng.</i> 25	2	<i>Mechanical Eng.</i> 25	2	<i>Mechanical Eng.</i> 25	2

DEPARTMENT OF ELECTRICAL ENGINEERING.

PROFESSOR BOLTON.

MR. LEAR.

Instruction in Electrical Engineering is given by recitation, lecture, experiment, lantern illustration, laboratory work, and individual conferences. In most courses, some modern text-book is taken as a basis for study and the work broadened and explained by lectures and problems.

The laboratory practice is designed more firmly to impress the principles taught in class room, to familiarize the student with the practical operation of electrical apparatus, and to teach him to investigate for himself the characteristics of various types of machines. Reports are required on all experiments performed and the student learns to express thoughts concisely.

At some time during the course students are given an opportunity to make a tour of inspection of some of the larger plants of the State.

An Electrical Engineering Society and a branch of the American Institute of Electrical Engineering are means of keeping students in touch with the latest development in the electrical field.

The foundation for the course in Electrical Engineering is laid in the departments of physics, mathematics, drawing and mechanical engineering. On account of the close relation existing between the work of an electrical engineer and that of a mechanical engineer the courses are practically identical during the first two years.

The courses are as follows:

1. **Electrical Measurements.** Sophomore. Fall, Winter, Spring, 3 hours a week; with practice.

Lectures and recitations on the theory, standardization and use of electrical measuring instruments, including galvanometers, bridges, voltmeters, ammeters, condensers, wattmeters and recording instruments.

Prerequisite, *Physics 3, Mathematics 4*. Must be accompanied by *Physics 4 and Mathematics 5, 6*.

Practice, Winter, Spring, 4 hours a week.

This practice is intended to clarify the students' ideas received in the class room study. It includes the accurate measurements of various electrical quantities, as resistance, inductance, capacity, etc., and the effect of temperature, position, etc., on these quantities; a study of the various types of batteries to determine their adaptability to various uses; calibration and repair of instruments such as ammeters, voltmeters, wattmeters, etc.

2. **Direct Current Machinery.** Junior. Fall, Winter, Spring, 3 hours a week; with practice.

This course is devoted to the study of the theory, and applications of direct currents and direct current machinery. Particular attention is devoted to modern machinery and its applications. The course also includes the study of modern electric illuminants and of illumination in general. A short time is devoted to the study of the National Electric Code and of modern methods of wiring.

Elements of Electrical Engineering, volume I, *Franklin and Esty*.
Practice, 4 hours a week.

The practice is intended to give practical demonstration of the theory. It includes the operation of dynamos and motors, the determination of characteristics, measurement and calculation of losses, efficiencies, and regulation. A practical study is also made of the various types of modern illuminants to determine reliability, efficiency, adaptability to various uses, etc.

Prerequisite, *Electrical Engineering 1*, *Mathematics 6*.

3. **Electrical Machinery.** Junior. Winter, Spring, 3 hours a week; with practice.

Lectures and recitations on operation and characteristics of dynamos, motors, transformers and other electrical appliances of the types most commonly met with in general engineering practice. This course is provided for all engineering students except those taking the electrical courses and is intended to give only a general idea of the subject. The course is intensely practical, only the more fundamental principles being studied in detail.

Practice, Spring, 4 hours a week.

The practice is designed to give the general engineering student some degree of familiarity with the operation and the more important characteristics of both direct current and alternating current machines.

Prerequisite, *Physics 4*, *Mathematics 6*.

4. **Telephone Engineering.** Junior. Winter, Spring, 3 hours a week; with practice.

Lectures and recitations on telephone systems; their design, installation, and management. This course includes a discussion of the relative advantages of the different types of telephones, and the faults and peculiarities met in each system.

Practice, Spring, 2 hours a week.

Practice in tracing of circuits, connection of instruments, measurements of constants and location and remedy of faults and trouble in magneto, central energy and automatic telephone sets and systems.

Prerequisite, *Electrical Engineering 1*; to be preceded or accompanied by *Electrical Engineering 2*.

5. **Alternating Currents.** Senior. Fall, Winter, Spring, 3 hours a week; with practice.

This course embraces a study of alternating currents and alternating current machinery, including methods of generation, transformation and utilization; a study of wave shapes and quantities affecting wave shapes; and the effect of balanced and unbalanced loads. The subject is treated graphically as far as possible, the text being supplemented by lectures and problems.

Elements of Electrical Engineering, volume II, *Franklin and Esty. Practice*, 4 hours a week.

The practical operation and determination of the characteristics of various types of alternating current machines.

Prerequisite, *Electrical Engineering 2*.

6. **Electrical Designing.** Senior. Fall, Winter, Spring, 3 hours a week; with practice.

Lectures and recitations on the design of electrical instruments and machines.

Practice, 4 hours a week.

Practice in the design of lifting magnets, clutches, relays, dynamos and motors. Working drawings of some of the machines are required. The Spring term is devoted to the design of an electric power plant and distribution system. This includes bills of material, estimate of costs, etc.

Prerequisite, *Electrical Engineering 1*; to be accompanied or preceded by *Electrical Engineering 5*.

7. **Electric Railway Economics.** Senior. Winter, Spring, 3 hours a week.

This course embraces a study of direct current railway apparatus, costs of construction and operation of electric railway systems, and operating methods. Students are required to make an engineering report on a small railway system estimating cost of construction and operation and probable returns on investment.

Prerequisite, *Electrical Engineering 2*.

8. **Electric Power Distribution.** Senior. Spring, 3 hours a week.

Lectures and recitations on the transmission and distribution of power by electrical methods. Many subjects not treated in the text-books are studied and the student is encouraged to investigate all available sources for information.

This course must be accompanied or preceded by *Electrical Engineering* 2 and 5.

9. **Lighting and Wiring.** Junior. Winter, 1 hour a week.

Lectures and recitations on wiring for electric lighting. This includes a study of the National Electric Code of wiring with illustrations of how its requirements are carried out in practice. It is given to enable the students in Architectural Engineering to design and supervise wiring installations.

Prerequisite, *Physics* 4.

EQUIPMENT.

This department is well equipped with apparatus for lecture table experiments. There is a fine projection lantern for general projections of slides and a good supply of slides.

In the laboratory there is sufficient apparatus to enable the students in Electrical Engineering to become familiar with all the operations that would be required of them in the practice of their profession.

The electrical laboratory is equipped with direct and alternating current dynamos and motors, transformers, a station photometer, an illumination photometer, transmission dynamometers, storage batteries, samples of the various modern electric illuminants, dark rooms, and a full line of measuring instruments, rheostats, resistances, etc.

Through the generosity of the Otis Elevator Company a complete motor-driven elevator winding-engine equipment of the most modern type, complete with all automatic switches, regulators, controllers, etc., has recently been donated and has been installed in the laboratory for test and demonstration purposes.

The laboratory is also equipped with a number of frames of dynamos and motors and cores of transformers that are used by the students in learning to wind and repair these machines.

The telephone laboratory is equipped with numerous telephones and telephone parts, a manual switchboard for both central energy and magneto operation, a Strowger automatic switchboard with complete equipment for operation and storage batteries, condensers, etc., for use with the various systems. The Bryan Telephone Company operates a complete telephone switchboard which is used to give local and long distance telephone service from various stations on the campus. This exchange is available to the students in Electrical Engineering for test and operation.

The equipment for the students in Electrical Engineering is augmented by the fact that the direct connected generators in the power-house,

their exciters and measuring instruments, and the motors used to operate the Textile School laboratories are available for tests as practical operating plants after the students have performed the required experiments on the machines located in the laboratory.

Students are encouraged to read books relating to their work, and for this purpose the department library is available. The technical books in the general library are also available. A reading table is maintained on which are kept copies of a number of technical magazines.

By means of liberal donations from manufacturers of electrical supplies and apparatus an exhibit room is maintained wherein are shown samples of a great variety of electrical supplies.

COURSE IN MECHANICAL ENGINEERING.

The course here offered in Mechanical Engineering is designed with a view of giving the student such training as will fit him to design, construct, and erect machinery, power plant equipment, etc., and to operate the same with the greatest economy of labor and materials.

It is not possible to give the student that experience which comes only with long service, but the aim is to give him the power to understand and apply established principles to engineering problems met with in practical work.

III.--COURSE IN MECHANICAL ENGINEERING.

Note.—The number following the name of a department refers to the number of the course as shown in the description of that department. Practice is indicated by italics.

FRESHMAN YEAR.

See page 53.

SOPHOMORE YEAR.

Fall.	Hours per week.	Winter.	Hours per week.	Spring.	Hours per week.
English 2, 3 Literature, Comp.	3	English 2, 3 Literature, <i>Сомар.</i>	3	English 2, 3 Literature, Comp.	3
History 2 English.	2	History 2 English.	2	History 2 English.	2
Military Science 1 Drill Regulations.	1	Military Science 1 Drill Regulations.	1	Military Science 1 Drill Regulations.	1
Mathematics 5 Analytics.	6	Mathematics 5, 6 Analytics, Calculus.	6	Mathematics 6 Calculus.	6
Mechanical Eng. 3 El. Steam Eng.	3	Mechanical Eng. 3 El. Steam Eng.	3	Mechanical Eng. 4 Kinematics.	3
Physics 4 General.	3	Physics 4 General.	3	Physics 4 General.	3
<i>Drawing</i> 4, 6	4	<i>Drawing</i> 7	4	<i>Drawing</i> 7	4
<i>Mechanical Eng.</i> 15	4	<i>Mechanical Eng.</i> 16	4	<i>Mechanical Eng.</i> 4, 16	4
<i>Physics</i> 4	2	<i>Physics</i> 4	2	<i>Physics</i> 4	2

JUNIOR YEAR.

English 5 Argumentation.	1	English 5 Argumentation.	1	English 5 Argumentation.	1
Chemistry 1 Inorganic.	3	Chemistry 1 Inorganic.	3	Chemistry 1 Inorganic.	3
Civil Engineering 4 Mechanics of Materials.	3	Civil Engineering 4 Mechanics of Materials.	3	Civil Engineering 8 Roofs and Bridges.	3
Civil Engineering 1 Surveying and Leveling.	3	Electrical Eng. 3 Electrical Machinery.	3	Electrical Eng. 3 Electrical Machinery.	3
Mathematics 7 Practical.	3	Mechanical Eng. 7 Steam Engine.	3	Mechanical Eng. 7 Steam Engine.	3
Mechanical Eng. 5 Steam Boilers.	3	Mechanical Eng. 9 Eng. Mechanics.	3	Mechanical Eng. 9 Eng. Mechanics.	3
<i>Chemistry</i> 1	2	<i>Chemistry</i> 2	2	<i>Chemistry</i> 2	2
<i>Civil Engineering</i> 1	2	<i>Civil Engineering</i> 4	2	<i>Civil Engineering</i> 6	2
<i>Mechanical Eng.</i> 6, 17	6	<i>Mechanical Eng.</i> 6, 17	6	<i>Mechanical Eng.</i> 17 <i>Electrical Eng.</i> 3	4

SENIOR YEAR.

Chemical Eng. 1 Ind. Inorganic.	3	Chemical Eng. 3 Metallurgy.	3	Chemical Eng. 4 Ind. Organic.	3
History 3 Economics.	3	History 3 Economics.	3	History 3 Economics.	3
Mechanical Eng. 10 Thermodynamics.	6	Mechanical Eng. 10 Thermodynamics.	3	Mechanical Eng. 12 Gas Engine.	3
Mechanical Eng. 11 Eng. Design.	3	Mechanical Eng. 11 Eng. Design.	3	Mechanical Eng. 11 Eng. Design.	3
Military Science 2	1	Civil Engineering 6 Hydraulics.	3	Civil Engineering 6 Hydraulics.	3
<i>Mech. Eng.</i> 18, 19, 20	10	<i>Mech. Eng.</i> 19, 20	10	<i>Mech. Eng.</i> 19, 20	10

DEPARTMENT OF MECHANICAL ENGINEERING.

PROFESSOR FERMIER.

MR. S. E. HERRINGTON.

MR. J. A. HERRINGTON.

MR. CHAPPELLE.

MR. CLARK.

The work of this department is carried on in both class room and shop or laboratory, the two lines of work designed to emphasize and reinforce each other.

In the shop practice the student works with woods and various kinds of metals; getting experience in the handling of tools and materials and acquiring a knowledge of the properties of materials by personal contact. Although he acquires a certain skill in the handling of tools, etc., yet the main result sought is not the training as a mechanic. Instead, it is expected that he will chiefly get the clear and definite ideas of the behavior of materials under the various technological processes which can be acquired only by personal contact and experience.

The class room work is taught by text-book, lecture and many numerical examples. The student is expected to understand the underlying principles and show their application in the solution and discussion of engineering problems of various sorts.

In the design rooms the instruction is given by lecture and reference books together with practice, using the methods of drafting rooms of manufacturing concerns.

In the latter part of his course he is expected to examine, operate, test and report on the various pieces of apparatus and equipment in the laboratory, shops and powerhouse.

The courses are as follows:

1. Elementary Mechanics. Freshman. Fall, Winter, Spring, 2 hours a week.

The work of this course will consist of lectures, quizzes, and problems involving those principles of mechanics which are more commonly used in all branches of engineering.

(Required in all Engineering courses.)

2. Shop Lectures. Freshman. Fall, Winter, Spring, 1 hour a week.

This course consists of lectures and quizzes (1) on hand and power tools for working wood and iron, their construction, care and operation; (2) on the technological properties of materials of shop manufacture; and (3) on processes of manufacture.

(Required in all Engineering courses.)

3. Elementary Steam Engineering. Fall, Winter, 3 hours a week.

This course aims to give the student such a knowledge of steam power plants and their equipment as will enable him to understand the operation of the same, and which will serve as a foundation for subsequent study and calculation along these lines. Valve gears, valve diagrams, and indicator practice are also included.

Elementary Steam Engineering, *Spangler*.

Prerequisite, *Mathematics 4, Physics 3, and Mechanical Engineering 1, 2.*

(Required in Courses, III, IV, V, VI, VIII.)

4. Kinematics. Spring, 3 hours a week; with practice.

Must be preceded by *Mathematics 4* and preceded or accompanied by *Physics 4*.

(Required in Course III, and without practice in Courses V, VI, VIII.)

5. Steam Boilers. Fall, 3 hours a week.

A study of the generation of steam; the construction, operation, care, design, strength, and testing of boilers of various type; together with the designs of chimneys and other methods of producing draft.

Steam Boilers, *Parsons*.

Must be preceded by *Mechanical Engineering 3* and *Physics 4* and preceded or accompanied by *Mathematics 6* and *Chemistry 1*.

(Required in Courses III, V, VII, VIII.)

6. Machine Design. Junior. Fall, Winter, 2 hours a week. Practice.

Prerequisite, *Mechanical Engineering 4, Mathematics 6*.

(Required in Course III.)

7. Steam Engine. Junior. Winter, Spring, 3 hours a week.

A study of the elementary thermodynamics of the heat engine; also the mechanics, construction, design and operation of the steam engine; valve gears, indicators, governors, etc., are also studied.

Must be preceded by *Mechanical Engineering 3*; *Physics 4*, and preceded or accompanied by *Mathematics 6*.

(Required in Courses III, VIII.)

8. Steam Engine. Senior. Winter, 3 hours a week.

A modification of Course 7 with the same prerequisites.

(Required in Course V.)

9. Engineering Mechanics. Winter, Spring, 3 hours a week.

The applied mechanics of engineering problems arising in mechanical engineering work, with particular reference to the foundation principles involved in the analytical solution of problems involving the statics and dynamics of a material point and rigid bodies.

Prerequisite, *Mathematics 6, Civil Engineering 4, Physics 4.*

(Required in Courses III, VIII.)

10. Thermodynamics. Senior. Fall, Winter, 3 hours a week.

This embraces a study of the effects of heat upon gases and the application of their laws and principles to the steam engine, gas engine, hot-air engine, injectors, calorimeters, etc., together with a study of steam engine economy.

Prerequisite, *Mechanical Engineering 5, 7; Mathematics 6.*

(Required in Course III.)

11. Engineering Design. Senior. Fall, Winter, Spring, 3 hours a week.

A study of the design of engines, pumping machinery, etc., from the standpoint of their strength, speed regulation, and economical performance.

(Required in Course III.)

12. Gas Engine. Senior. Spring, 3 hours a week.

The application of the principles of thermodynamics to the design of gas engines. Also the study of the different cycles and the various types of gas engines, and other internal combustion and explosion motors.

Prerequisite, *Mechanical Engineering 9, 10.*

(Required in Course II.)

PRACTICE COURSES.

Note.—To secure credit for the courses in shop practice the student must do more than finish a certain number of exercises. He will be expected to put in full catalogue time and do creditable work.

13. Carpentry. 6 hours a week, one and one-half terms. Practice.

Shop practice in the use of common bench tools; also power machinery for working in wood.

14. Forging. 6 hours a week, one and one-half terms. Practice.

Shop practice in the use of blacksmith and general forge tools in the working of iron and steel tools, fittings, etc. Also tempering, annealing, welding, etc.

Courses 13 and 14 are required of all Freshmen Engineering Students.

The two courses constitute a year's work 6 hours a week. The class will be divided into two groups, one beginning with Course 13, the other with Course 14. At the middle of the Winter term the groups will each change to the other work.

15. Wood Turning. Fall, 4 hours a week. Practice.

Instruction and shop practice in the use of wood-turning tools, for center, chuck and faceplate work.

(Required in Courses III, V, VIII.)

16. Pattern Making and Foundry Work. Sophomore. Winter, 4 hours; Spring, 2 hours a week. Practice.

Shop practice in the principles of patternmaking and foundry work for cast-iron and brass work.

Note.—Patterns will be made the same as in regular pattern shops. But the molding and casting can not be as in practical work owing to lack of foundry equipment and building.

(Required in Course III.)

17. Machine Shop Practice. Junior. Fall, Winter, 4 hours; Spring 2 hours a week. Practice.

Practice in bench and machine-tool work in metals. This includes chipping, scraping, filing, babbiting, drilling, turning, boring, grinding, milling machine work, etc.

(Required in Course III.)

18. Machine Shop Practice. Senior. Fall, 4 hours a week. Practice.

A continuation of Course 17.

(Required in Course III.)

19. Engineering Design. Senior. Fall, 4 hours; Winter, 6 hours; Spring, 4 hours a week. Practice.

Drawing room practice in the design of machines.

Prerequisite, *Mechanical Engineering* 4, 8, 12.

(Required in Course III.)

20. Engineering Laboratory. Senior. Fall, 2 hours; Winter, 4 hours; Spring, 6 hours a week. Practice.

Instruction and practice in testing gauges, indicators, boilers, engines, etc., also a study of the actual mechanical operation of various machines.

In addition to the work with the various apparatus, the student will be expected to make calculations and written report on the investigation and the result obtained.

(Required in Course III.)

21. **Wood Turning. Sophomore. Fall, Winter, Spring, 2 hours a week. Practice.**

A modification of Course 15.
(Required in Course VI.)

22. **Pattern Making and Foundry Work. Junior. Winter, 2 hours a week. Practice.**

A modification of Course 16.
(Required in Course VIII.)

23. **Machine Shop Practice. Junior. Fall, Winter, 2 hours a week. Practice.**

A modification of Course 17.
(Required in Course VI.)

24. **Machine Shop Practice. Junior. Fall, 4 hours; Winter, 2 hours a week. Practice.**

A modification of Course 17.
(Required in Course V.)

25. **Engineering Laboratory. Senior. Fall, Winter, Spring, 2 hours a week. Practice.**

A modification of Course 20.
(Required in Course V.)

26. **Engineering Laboratory. Winter, 4 hours a week. Practice.**

A modification of Course 20.
(Required in Course IV.)

27. **Engineering Laboratory. Senior. Fall, Winter, Spring, 2, hours a week. Practice.**

A modification of Course 20.
(Required in Course VIII.)

28. **Fall, first half of Winter, 4 hours a week. Practice.**

A modification of Course 13.
(Required in the Two-Year Course in Textile Engineering.)

29. **Second half Winter; Spring, 4 hours a week. Practice.**

A modification of Course 14.
(Required in the Two-Year Course in Textile Engineering.)

30. **Winter, Spring, 4 hours a week. Practice.**

A modification of Course 17.
(Required in the Two-Year Course in Textile Engineering.)

33. Carpentry. 2 hours a week. Practice.

A modification of Course 13.

(Required in the Two-Year Course in Agriculture, Winter Term, and in Course I, Spring Term.)

34. Forging. Spring, 2 hours a week. Practice.

A modification of Course 14.

(Required in the Two-Year Course in Agriculture.)

35. Carpentry. Fall, Winter, Spring, 4 hours a week. Practice.

A modification of Course 13.

(Required of Sub-Freshman students.)

EQUIPMENT.

In the carpenter shop are excellent double work benches equipped with quick-acting vises, and the saws, planes, chisels, etc., ordinarily found in a carpenter's kit. Supplementing these are a number of special tools in the tool room.

The wood turning equipment consists of a number of smaller lathes for the ordinary work, and a larger pattern maker's lathe which admits of a wide application. Besides the lathes there are band, jig and circular saws, power driven, and grindstones for the students' use.

The forge room equipment consists of three dozen forges almost all having power blast and exhaust, the necessary anvils, tongs, and other small tools usually found in the forge equipment:

In the machine shop the equipment, which has just been repaired and rearranged, is now in quite a satisfactory condition. It consists of a full line of lathes, grinders, milling machines, etc., so that the student has an opportunity to learn how the ordinary shop tools and machines are constructed and operated. The tool room contains a large assortment of drills, reamers, chucks and other machine accessories as well as the small tools for laying out work and accurately measuring the same; calipers, micrometers, steel scales, punches, surface plates, etc.

The engineering laboratory contains steam engines, a gasoline engine, steam turbine, steam and power pumps, fans, water motors, a hot-air engine, condensers, air pump, injectors and a full line of indicators, gauges, pyrometers, thermometers, tachometers, speed indicators, prony brakes, platform scales, etc., for conducting tests as outlined in Course 18.

In addition the laboratory has the use of all apparatus of the power plant, consisting of compound engines, Corliss and pumping engines of several different kinds, also the boilers of well-known makes and dif-

ferent types. The testing of these constitutes part of the course in Mechanical Engineering. •

For the class room instruction there are numerous full-sized wooden models of different kinds of engines, also sections of actual air-brake equipment and other appliances and fittings for railway and power plant equipment.

Besides the above mentioned equipment might be mentioned the fact that manufacturers have in some instances deposited or donated for the use of the department a number of standard appliances, which prove valuable to the student.

COURSE IN TEXTILE ENGINEERING.

The object of this course is to prepare young men for entering the field of textile manufacturing. The unprecedented development of the cotton milling industry in the South has brought about an era of prosperity and created a strong demand for educated young men in this industry. The State of Texas offers excellent advantages for the manufacture of cotton goods in its vast supply of raw material, intelligent labor, and excellent climatic conditions, and we believe cotton manufacturing will develop as rapidly as skilled and capable management familiar with local conditions is to be had. The studies outlined have been selected with a view of giving theoretical and practical training in the manufacture of cotton goods as thorough as is consistent with the time available.

VI.—COURSE IN TEXTILE ENGINEERING.

Note.—The number following the name of a department refers to the number of the course as shown in the description of that department. Practice is indicated by italics.

FRESHMAN YEAR.

See page 53.

SOPHOMORE YEAR.

Fall.	Hours per week.	Winter.	Hours per week.	Spring.	Hours per week.
Chemistry 1	3	Chemistry 1	3	Chemistry 1	3
Inorganic.		Inorganic.		Inorganic.	
English 2, 3	3	English 2, 3	3	English 2, 3	3
Literature, Comp.		Literature, Comp.		Literature, Comp.	
History 2	2	History 2	2	History 2	2
English.		English.		English.	
Mechanical Eng. 3	3	Mechanical Eng. 3	3	Mechanical Eng. 3	3
El. Steam Eng.		El. Steam Eng.		El. Steam Eng.	
Military Science 1	1	Military Science 1	1	Military Science 1	1
Drill Regulations.		Drill Regulations.		Drill Regulations.	
Physics 4	3	Physics 4	3	Physics 4	3
General.		General.		General.	
Textile Eng. 1	3	Textile Eng. 1	3	Textile Eng. 1	3
Design.		Design.		Design.	
<i>Chemistry 1</i>	2	<i>Chemistry 2</i>	2	<i>Chemistry 2</i>	2
<i>Drawing 4, 6</i>	4	<i>Drawing 7</i>	4	<i>Drawing 7</i>	4
<i>Mechanical Eng. 21</i>	2	<i>Mechanical Eng. 21</i>	2	<i>Mechanical Eng. 21</i>	2
<i>Physics 4</i>	2	<i>Physics 4</i>	2	<i>Physics 4</i>	2

JUNIOR YEAR.

Architectural Eng. 1	3	Electrical Eng. 3	3	Electrical Eng. 3	3
Build. Construction.		Electrical Machinery.		Electrical Machinery.	
English 5	1	English 5	1	English 5	1
Argumentation.		Argumentation.		Argumentation.	
Textile Eng. 2	3	Chemistry 7	3	Chemistry 7	3
Yarn Manufacture.		Organic.		Organic.	
Textile Eng. 3	3	Textile Eng. 2	3	Textile Eng. 2	3
Designing.		Yarn Manufacture.		Yarn Manufacture.	
Textile Eng. 4	2	Textile Eng. 3	3	Textile Eng. 3	3
Weaving.		Designing.		Designing.	
Textile Eng. 5	1	Textile Eng. 4	2	Textile Eng. 4	2
Cotton Classing.		Weaving.		Weaving.	
Architectural Eng. 1	4	Textile Eng. 5	1	Textile Eng. 5	1
<i>Mechanical Eng. 23</i>	2	Cotton Classing.		Cotton Classing.	
<i>Textile Eng. 2, 4</i>	6	<i>Chemistry 7</i>	2	<i>Chemistry 7</i>	2
		<i>Mechanical Eng. 23</i>	2	<i>Electrical Eng. 3</i>	4
		<i>Textile Eng. 2, 4</i>	6	<i>Textile Eng. 2, 6</i>	6

SENIOR YEAR.

Chemistry 12	3	Chemistry 12	3		
Dyeing.		Dyeing.			
History 3	3	History 3	3	History 3	3
Economics.		Economics.		Economics.	
Military Science 2	1	Textile Eng. 7	3	Textile Eng. 7	3
Textile Eng. 7	3	Yarn Manufacture.		Yarn Manufacture.	
Yarn Manufacture.		Textile Eng. 8	4	Textile Eng. 8	4
Textile Eng. 8	4	Designing.		Designing.	
Designing.		Textile Eng. 9	2	Textile Eng. 9	2
Textile Eng. 9	2	Weaving.		Weaving.	
Weaving.		Textile Eng. 10	2	Textile Eng. 11	3
		Yarn Mfg.		Mill Management.	
<i>Chemistry 12</i>	4	<i>Chemistry 12</i>	4		
<i>Textile Eng. 7, 9</i>	8	<i>Textile Eng. 7, 9</i>	6	<i>Textile Eng. 7, 9</i>	10

DEPARTMENT OF TEXTILE ENGINEERING.

PROFESSOR BAGLEY.

MR. TATUM.

The Legislature having made a liberal provision for the establishment of a Textile School as a department of the Collège, a suitable building of modern cotton mill construction has been erected, and an excellent equipment has been secured. The building offers excellent opportunities for the study of the details of mill construction.

The equipment has been carefully selected with a view of having a wide variety of the leading makes of cotton mill machinery represented. This will afford the student the opportunity of becoming familiar with such machinery as that with which he is likely to come in contact in the mills of the country.

Instruction will be confined to the manufacture of cotton goods and a thorough training will be given in the manufacture of many classes of cotton yarns and fabrics.

Instruction is given by the use of text-books, lectures, recitation and the practical operation of the machines in the actual production of yarns and fabrics.

The instruction in this department is divided into four sections, viz., Yarn Manufacturing, Weaving, Designing, and Chemistry and Dyeing. These subjects are so treated as to cover the manufacture of all classes of cotton yarns and fabrics.

The courses are as follows:

1. Designing. Sophomore. Fall, Winter, Spring, 3 hours a week.

This course includes the classification of fabrics; the elementary principles of fabric structure; the explanation of various technical terms applied to designs and fabrics; the representation of drawing-in drafts and harness chains; the design of fancy shirting, madrases, and dress goods, etc.

2. Yarn Manufacture. Junior, Fall, Winter, Spring, 3 hours a week; with practice.

Recitations on the machinery and processes in the manufacture of coarse cotton yarns. Instruction is given with a view of imparting a general knowledge of the machinery and processes, including the study of the raw material; mixing; mixing machinery; construction and operation of feeder and picking machinery, carding, drawing, slubbing, roving, ring spinning, spooling, reeling, and twisting; calculations to

determine the necessary gearing to produce given numbers, speeds and production.

Practice, Junior. Fall, Winter, 4 hours; Spring, 2 hours a week.

3. Designing. Junior. Fall, Winter, Spring, 3 hours a week.

A continuation of Course I and the design of lenos, two and three-ply fabrics, and pile fabrics. The course is supplemented by the practice in power weaving.

Prerequisite, *Textile Engineering 1*.

4. Power Weaving. Junior. Fall, Winter, Spring, 2 hours a week; with practice.

Recitations and lectures on the construction, operation and adjustment of the plain and fancy looms; a study of the timing and setting of the various parts, and weave room calculations.

Practice, Fall, Winter, 2 hours a week.

5. Cotton Classing. Junior. Fall, Winter, Spring, 1 hour a week.

Instruction as to the kind of cotton contracts that are made by mills; the general handling of the crop and judging the classification of samples.

6. Hand Loom Weaving. Junior. Spring, 4 hours a week. Practice.

The student here becomes familiar with the handling of warps and yarns, and with the general processes in weaving. The greatest value in hand loom weaving lies in its connection with designing. The student having made the necessary designs, proceeds with the preparation of the warp, and the drawing-in and reeding of the warp, the construction of the harness chain, and finally the starting up of the loom.

7. Yarn Manufacture. Senior. Fall, Winter, Spring, 3 hours a week; with practice.

Recitations and lectures; a continuation and more exhaustive treatment of the subjects of Course 2. In addition the study of warp preparation and of the machinery necessary for the manufacture of fine cotton yarns, including the sliver lap machine, ribbon lap machine and comber, and a study of the spinning mule, organizations for the manufacture of all classes of yarns and the preparation of fancy warps.

Practice, Senior. Fall, Spring, 4 hours; Winter, 2 hours a week.

8. Designing. Senior. Fall, Winter, Spring, 4 hours a week.

Fabric analysis, including the dissecting of small samples with a view to the reproduction of fabrics; Jacquard designing, including the production of original designs, card cutting and lacing. This course is

supplemented by the production of dobby and Jacquard designs on power looms.

Prerequisite, *Textile Engineering 3*.

9. **Power Weaving. Senior. Fall, Winter, Spring, 2 hours a week; with practice.**

Recitations and lectures on the construction, operation and adjustment of leno and Jacquard machines. A study of the different "tie-ups" used in Jacquard weaving. Sketching the most important motions on automatic and dobby looms.

Prerequisite, *Textile Engineering 4*.

Practice, Senior. Fall, Winter, 4 hours; Spring, 6 hours a week.

10. **Yarn Manufacture. Senior. Winter, 2 hours a week.**

Recitations and lectures. The object here will be to present the work of the management of a plant in looking after the operation of the departments of the mill.

Prerequisite, *Textile Engineering 2*.

11. **Mill Management. Senior. Spring, 3 hours a week.**

Lectures and recitations of the general management of cotton mills, including the study of fire protection, cost of production in the various departments, labor conditions and wages, care of mill and mill village.

TWO-YEAR COURSE IN TEXTILE ENGINEERING.

First Year.

12. **Power Weaving. Fall, Winter, Spring, 3 hours a week; with practice.**

A modification of Course 4.

Practice, Fall, 4 hours; Spring, 6 hours a week.

13. **Hand Loom Weaving. Winter, 4 hours a week. Practice.**

A modification of Course 6.

Second Year.

14. **Yarn Manufacture. Fall, Winter, Spring, 3 hours a week; with practice.**

A modification of Course 6.

Practice, 4 hours a week.

15. **Power Weaving. Fall, Winter, 2 hours a week; with practice.**

A modification of Course 8.

Practice, Fall, Winter, Spring, 4 hours a week.

16. Designing. Fall, Winter, Spring, 3 hours a week.

A modification of Course 3.

17. Designing. Fall, Winter, Spring, 1 hour a week.

Fabric analysis; including the dissection of small samples with a view of the reproduction of fabrics; Jacquard designing, cutting cards from original designs.

18. Cotton Classing. Fall, 2 hours a week. Practice.

The course covers the handling of the crop from the field to the mill; the method of establishing classes for cotton and their values, and a practice in judging the value of samples.

19. Cotton Classing. Freshman. Fall, 2 hours a week. Practice.

A modification of Course 5.
(Required in Course I.)

EQUIPMENT.

GENERAL EQUIPMENT.—The building is equipped with the latest and most approved system of automatic sprinklers for protection against fire, furnished by the General Fire Extinguisher Co., of Providence, R. I.; Webster low pressure vacuum system of steam heat, installed by General Fire Extinguisher Co., Providence, R. I.; humidifying system, installed by the American Moistening Co., Boston, Mass. The power is furnished by the electric motors conveniently placed for the proper distribution of power as required. The entire system of shafting, pulleys and hangers has been furnished by the Jones & Laughlin Steel Co., of Pittsburg, Pa.

YARN MANUFACTURING.—*Picking.* One Howard & Bullough automatic feeder and opener connected by cleaning trunk and gauge box to Howard & Bullough breaker-lapper; one Kitson finisher-lapper; one Kitson thread extractor; one pair combination scales; one pair platform scales.

Carding. One Howard & Bullough 40-inch revolving flat card; two traverse grinders; one drum grinder; stripping and burnishing rolls.

Combing. One Whitin 12-inch sliver-lap machine; one Whitin 12-inch comber with two heads and electric stop motion.

Drawing. One Howard & Bullough four-delivery drawing frame with electric stop motions.

Roving. One Woonsocket 11-inch by 5½-inch slubber, with Daly's differential motion; one Saco & Pettee 9-inch by 4½-inch intermediate roving frame with improved differential motion; one Howard & Bul-

lough 7-inch by $3\frac{1}{2}$ -inch fine roving frame with Tweedale's differential motion; one Lowell 5-inch by $2\frac{1}{2}$ -inch jack frame with the bevel gear differential.

Spinning. One Howard & Bullough 112-spindle spinning frame, with combination builder motion for warp and filling; one Draper Co.'s Week's banding machine; one D. A. Tompkins Co.'s banding machine.

Spooling. One Draper spooler; one Easton & Burnham spooler; one Easton & Burnham skein spooler; two Barber knotters.

Twisting. One Draper 90-spindle twister with combination builder for warp and filling wind.

Winding. One Universal Winding Co.'s Winding Machine for tubes and cones.

Reeling. One combination reel, 44 spindles, from the D. A. Tompkins Co.

Warping. One Draper slasher warper, with balling machine.

Slashing. One Cohoes cylinder slasher with 6-beam creel, size kettle, overhead track and differential hoist.

The section of yarn manufacture is well equipped with all necessary supplies, including bobbins, spools, doffing boxes and trucks, change gears, etc.

WEAVING.—Hand Loom. The hand loom weaving section is equipped with ten hand looms, with 4x4 boxes, 24 harness dobbins arranged for 4-beam work; warping, beaming and drawing-in frames.

Power Weaving. One Northrop print cloth loom made by the Draper Co.; one 40-inch Northrop loom made by the Draper Co.; one Crompton & Knowles plain loom for twills and satteens; one Crompton gingham loom; one Crompton & Knowles 30-inch terry towel loom; one Knowles "Gem Dress Goods" loom; one Crompton damask loom with 600 hook, double cylinder, double lift Halton jacquard; one Crompton & Knowles cotton loom with 400 hook jacquard; one Whitin cotton loom with 20 harness dobby; one Whitin satteen loom; one Draper drawing-in frame; one D. A. Tompkins Co. drawing-in frame; one Jacob K. Altemus bobbin winding machine; one 600's piano card cutting machine; one card lacing frame.

The power weaving section is also equipped with all necessary supplies and accessories, including loom beams, warping frames, harness frames, heddles and change gears.

CLOTH FINISHING.—This section is equipped with necessary machinery for the finishing of the fabrics woven in the department, including one cloth-inspecting machine; one railway sewing and rolling machine; one brushing and calendering machine; one cloth-folding machine.

Braider. One Rhode Island Braiding Machine Co.'s 16-strand cord braider.

PERIODICALS.

The following periodicals are received gratis by the department:

Textile World Record.

American Cotton Manufacturer.

The Tradesman.

Dyer's Bulletin.

Wool and Cotton Reporter.

The Mill and Shop.

Fibre and Fabric.

Southern Farm Magazine.

Textile Manufacturers' Journal.

Textile Excelsior.

TWO-YEAR COURSE IN TEXTILE ENGINEERING.

ENTRANCE REQUIREMENTS.

Young men over eighteen years of age are admitted to the course without examination if the President of the College considers them properly qualified for the course.

PLAN OF COURSE.

The two-year course in Textile Engineering is intended for young men who wish to take up the work of cotton manufacturing and can not spend more than two years in preparation.

The aim of the course is to prepare young men for the responsible positions in a cotton mill after a short term of apprenticeship. Certificates will be given students who complete the work as outlined.

Note.—The number following the name of a department refers to the number of the course as shown in the description of the department. Practice is indicated by italics.

FIRST YEAR.

Fall.	Hours per week.	Winter.	Hours per week.	Spring.	Hours per week.
English 9	3	English 9	3	English 9	3
Grammar, Comp.		Grammar, Comp.		Grammar, Comp.	
Textile Eng. 1	3	Textile Eng. 1	3	Textile Eng. 1	3
Designing.		Designing.		Designing.	
Textile Eng. 2	3	Textile Eng. 2	3	Textile Eng. 2	3
Yarn Manufacture.		Yarn Manufacture.		Yarn Manufacture.	
Textile Eng. 12	3	Textile Eng. 12	3	Textile Eng. 12	3
Weaving.		Weaving.		Weaving.	
<i>Drawing</i> 21, 22	3	<i>Drawing</i> 21, 22	3	<i>Drawing</i> 21, 22	3
<i>Mechanical Eng.</i> 28	4	<i>Mech. Eng.</i> 28, 29	4	<i>Mechanical Eng.</i> 29	4
<i>Textile Eng.</i> 2, 12	8	<i>Textile Eng.</i> 2, 13	8	<i>Textile Eng.</i> 2, 12	8

SECOND YEAR.

English 10	3	English 10	3	English 10	3
Comp., Rhetoric.		Comp., Rhetoric.		Comp., Rhetoric.	
Textile Eng. 14	3	Textile Eng. 14	3	Textile Eng. 14	3
Yarn Manufacture.		Yarn Manufacture.		Yarn Manufacture.	
Textile Eng. 15	2	Textile Eng. 15	2	Textile Eng. 11	3
Weaving.		Weaving.		Mill Management.	
Textile Eng. 16	3	Textile Eng. 16	3	Textile Eng. 16	3
Designing.		Designing.		Designing.	
Textile Eng. 17	1	Textile Eng. 17	1	Textile Eng. 17	1
Designing.		Designing.		Designing.	
<i>Drawing</i> 12	4	<i>Drawing</i> 1	2	<i>Drawing</i> 1	2
<i>Mechanical Eng.</i> 15	4	<i>Mechanical Eng.</i> 30	4	<i>Mechanical Eng.</i> 30	4
<i>Textile Eng.</i> 14, 15	8	<i>Textile Eng.</i> 14, 15	8	<i>Textile Eng.</i> 14, 15	8

FIFTH YEAR'S WORK IN ENGINEERING.

In the engineering courses a fifth year's work is offered to young men who have obtained the bachelor's degree in this College or other institution approved by the Faculty. The work of this year leads to the professional degree of Civil Engineer, Electrical Engineer, Mechanical Engineer, or Textile Engineer. The instruction is entirely technical and consists of advanced work in various engineering subjects as shown in the tabular statement following. It is believed that the graduate will find it well worth while to take this work, either immediately after graduation, or after a year or more spent in active work; and that the wider acquaintance with engineering subjects, and the power of investigation so acquired will prove to be decidedly promotive of his professional advancement. No drill is required.

The curricula shown on the following pages are for students receiving their Bachelor's degree prior to June, 1913.

Note.—The number in parenthesis following the name of a department refers to the number of the course as shown in the description of that department in the thirty-third annual catalogue.

COURSE IN CIVIL ENGINEERING.

(Leading to the Degree of Civil Engineer.)

FIFTH YEAR.

Fall.	Hours per week.	Winter.	Hours per week.	Spring.	Hours per week.
Civil Eng. (10) Astronomy.	3	Civil Eng. (13) Gen'l Civil Eng.	3	Civil Eng. (13) Gen'l Civil Eng.	3
Civil Eng. (11) Least Squares.	3	Civil Eng. (11) Geodesy.	3	Civil Eng. (14) Contracts.	3
Civil Eng. (12) Bridge Designing.	3	Civil Eng. (12) Bridge Designing.	3	Civil Eng. (12) Bridge Designing.	3
*Elective	6	*Elective	6	*Elective	6
<i>Civil Engineering</i>	7½	<i>Civil Engineering</i>	7½	<i>Civil Engineering</i>	7½

*Subject to approval of head of department in which major work is done.

COURSE IN ELECTRICAL ENGINEERING.

(Leading to the Degree of Electrical Engineer.)

FIFTH YEAR.

Fall.	Hours per week.	Winter.	Hours per week.	Spring.	Hours per week.
Electrical Eng. (5) Electrical Designing.	6	Electrical Eng. (5) Electrical Designing.	6	Electrical Eng. (5) Electrical Designing.	6
Electrical Eng. (6) Adv. Elec. Machinery.	3	Electrical Eng. (6) Adv. Elec. Machinery.	3	<i>Electrical Eng.</i> (16) Telephony.	3
*Elective	6	*Elective	6	*Elective	6
<i>Elec. Eng.</i> (5), (6)	7½	<i>Elec. Eng.</i> (5), (6)	7½	<i>Elec. Eng.</i> (5), (16)	7½

*Subject to approval of head of department in which major work is done.

COURSE IN MECHANICAL ENGINEERING.

(Leading to the Degree of Mechanical Engineer.)

FIFTH YEAR.

Fall.	Hours per week.	Winter.	Hours per week.	Spring.	Hours per week.
Mechanical Eng.	3	Mechanical Eng.	3	Mechanical Eng.	3
Analytical Mechanics.		Pumping Machinery.		Analytical Mechanics.	
Mechanical Eng.	3	Mechanical Eng.	3	Mechanical Eng.	3
Steam Power Plants.		Analytical Mechanics.		Contracts and Specifications.	
Mechanical Eng.	3	Mechanical Eng.	3	Mechanical Eng.	3
Thermodynamics.		Refrigerating Machinery.		Pumping Machinery.	
*Elective	6	*Elective	6	*Elective	6
<i>Mechanical Eng.</i>	7½	<i>Mechanical Eng.</i>	7½	<i>Mechanical Eng.</i>	7½

*Subject to approval of head of department in which major work is done.

COURSE IN TEXTILE ENGINEERING.

(Leading to the Degree of Textile Engineer.)

FIFTH YEAR.

Fall.	Hours per week.	Winter.	Hours per week.	Spring.	Hours per week.
Textile Eng. (4)	3	Textile Eng. (4)	3	Textile Eng. (4)	3
Yarn Manufacture.		Yarn Manufacture.		Yarn Manufacture.	
Textile Eng. (10)	3	Textile Eng. (13)	6	Textile Eng. (13)	3
Weaving.		Designing.		Designing.	
Textile Eng. (13)	3	*Elective	6	Textile Eng. (15)	3
Designing.				Mill Management.	
*Elective	6			*Elective	6
<i>Textile Eng. (4), (10)</i>	7½	<i>Textile Eng. (4), (10)</i>	7½	<i>Textile Eng. (4), (10)</i>	7½
*Elective	2½	*Elective	2½	*Elective	2½

*Subject to approval of head of department in which major work is done.

GENERAL STUDIES.

DEPARTMENT OF CHEMISTRY AND MINERALOGY.

PROFESSOR BLAKE.

DR. FRAPS.

DR. MACDOUGALL.

MR. NELSON.

The work in Chemistry begins in the Sophomore year of the courses in Agriculture and Chemical Engineering and in the Junior year of all the other courses. A broad foundation is laid in the beginning course of General Inorganic Chemistry, which extends throughout the year and is required in all courses. The remaining subjects described below include the work in Agricultural Chemistry and various special courses. The advanced work of the students of Chemical Engineering is described under that course. Most of the work is given by lectures, illustrated by experiments, and supplemented by laboratory work, with frequent oral and written quizzes.

The courses are as follows:

- i. **General Inorganic Chemistry.** Fall, Winter, Spring, 3 hours a week; with practice.

In this course the foundation principles of all chemical activity are fully discussed and demonstrated. The chemical elements and their compounds are then taken up separately and systematically. Industrial applications of the more important chemical processes are briefly described, and organic chemistry is touched upon. This course must precede all other chemical studies. A preliminary course in physics is prerequisite. Lectures, illustrated by experiments. General Chemistry for Colleges, *Smith*.

Practice, Fall, 2 hours a week; 4 hours a week in Course VIII.

General laboratory work, duplication of lecture experiments.

Winter and Spring terms, qualitative analysis (see Course 2).

(Required in all courses.)

2. **Qualitative Analysis.** Winter, Spring, 2 hours a week; 4 hours a week in Course VIII. Practice.

This course consists of laboratory work preceded by instructions and followed by quizzes. It serves both to familiarize the student with chemical reagents and chemical reactions, and to equip him for the rapid de-

termination of the principal ingredients of simple and complex inorganic substances. Outlines of Qualitative Chemical Analysis, *Gooch and Browning*.

(Required in all courses.)

3. Descriptive Organic Chemistry. Junior. Fall, 3 hours a week; with practice.

This course consists of a preliminary survey of the field of organic chemistry, with special reference to the needs of students of agriculture. It deals primarily with the substances contained in plants and animals, their development, chemistry, uses and decomposition products. Structural formulae are used throughout the work, but the proof of the structure is given only in Course 5.

Practice, 2 hours a week.

Animal and vegetable substances are examined with regard to their content of sugars, starch, cellulose, fats and oils, proteids, and organic acids.

Prerequisite, *Chemistry* 1, 2.

(Required in Course I.)

4. Agricultural Chemistry. Junior. Winter, Spring, 3 hours a week.

This is a study of the fundamental chemical principles of agriculture, and in addition to giving the student a grasp of the application of chemistry to agriculture, it helps him to understand the chemical terms used in Experiment Station literature. The chemistry of plant growth, soils, irrigation water, fertilizers, feeding stuffs and animal nutrition are studied. Lectures.

Prerequisite, *Chemistry* 3.

(Required in Course I.)

5. Agricultural Analysis. Junior. Winter, Spring, 2 hours a week. Practice.

This course serves to familiarize the student with the composition and behavior in the laboratory of many materials important in agriculture. It consists in a determination of the percentage of water and ash in various products, together with sugars, starch, crude fibre, fat, protein, potash and phosphoric acid. In order to facilitate the work of the student, standardized reagents are supplied by the instructor.

Prerequisite, *Chemistry* 1, 2.

(Required in Course I.)

6. Economic Geology. Junior. Fall, 3 hours a week; with practice.

This course begins with a brief account of dynamic, structural and historical geology. Geologic formations of economic value, such as coal, petroleum, building stones, clays, soils, natural-occurring fertilizers, and

artesian and mineral waters are then taken up. The physical and chemical properties of rocks, with their mineral constituents and decomposition products due to weathering, receive special attention.

Economic Geology of the United States, *Tarr*.

Practice, 2 hours a week.

The laboratory work in this course consists largely of determinative mineralogy and lithology, with special tests on coals, petroleum, and mineral waters. Tables for the Determination of Common Minerals, *Crosby*.

Prerequisite, *Chemistry* 1, 2.

(Optional in Course I, required in Course VIII.)

7. Organic Chemistry. Junior. Winter, Spring, 3 hours a week; with practice.

In this course the general principles and theories of organic chemistry, together with the general methods of preparation and synthesis of organic compounds are treated in detail. Special attention is given to compounds of technical importance, thus laying a foundation for work in dyeing, in agricultural chemistry, and in many processes of industrial chemistry. Lectures. Organic Chemistry, *Perkin* and *Kipping*.

Practice, 2 hours a week.

Winter term, preparation and properties of simple organic compounds.

Spring term, synthesis of complex organic substances.

Prerequisite, *Chemistry* 1, 2.

(Optional in Course I; required in Courses VI and VIII.)

8. Advanced Agricultural Analysis. Senior. Fall, Winter, Spring, 2 hours a week; with practice.

In this work the methods of exact analysis are discussed in the lectures and, so far as time allows, applied in the laboratory. The official methods of analysis are used throughout the work; but other methods are frequently used for comparison. It supplies a working basis for Course 10, or any further study of agricultural chemistry.

Practice, 6 hours a week.

Prerequisite, *Chemistry* 4.

(Optional in Course I.)

9. Physical Chemistry. Senior. Fall, 2 hours a week; with practice.

This is an elementary course, emphasizing the phenomena which shows the state of substances in solution. Lectures.

Practice, 4 hours a week.

Molecular weight determinations by vapor-density and freezing-point methods; electrical conductivity; migration of ions and of colloids; osmosis.

Prerequisite, *Chemistry* 7.

10. **Advanced Agricultural Chemistry. Senior. Winter, Spring, 2 hours a week; with practice.**

Studies of selected topics concerning the chemistry of soils, plants, or animal nutrition, in such a way as to give the student a knowledge of the methods used in agricultural investigation, and to aid him to develop habits of independent thought. Bulletins, scientific journals, lectures.

Practice, 4 hours a week.

The student is expected in this work to take up some special problem in agricultural chemistry, or to work on the chemical phase of some problem simultaneously pursued in some other department.

Prerequisite, *Chemistry* 9.

(Optional in Course I.)

11. **Dairy Chemistry. Senior. Fall, Winter, Spring, 2 hours a week; with practice.**

The object of this course is to study the composition of milk and the principal chemical changes that take place in the handling of it, and in its manufacture into butter and cheese. It includes the analysis of milk, cream, butter and cheese; the testing for adulterants; sanitary conditions necessary for creamery work, and influence of different feeds on the quality of dairy products. Dairy Chemistry, *Snyder*.

Practice, 4 hours a week.

12. **Dyeing. Fall, Winter, 3 hours a week; with practice.**

This course consists in a study of the physical and chemical properties of textile fibers, dyes, dyestuffs and mordants, together with the principles involved in the commercial coloring of textiles, especially cotton and woolen goods. Lectures.

Practice, 4 hours a week.

All the principles discussed in the lectures are tested in the laboratory, with especial attention to the fastness of the colors produced.

Prerequisite, *Chemistry* 7.

(Required in Course VI.)

13. **Geology. Senior. Winter and Spring, 3 hours a week; with practice.**

The first term's work consists of a study of dynamic and structural geology (an Introduction to Geology, *Scott*); the second term's work consists of a study of economic geology, with emphasis on the non-metallic minerals—coal, petroleum, building stones, clay, lime and cement, gypsum, abrasives, and road materials. Economic Geology of the United States, *Ries*.

Practice, Spring, 2 hours a week.

Largely determinative mineralogy and lithology, with special tests on some of the non-metallic minerals. Tables for the Determination of the Common Minerals, *Crosby*.

Prerequisite, *Chemistry* 1, 2.

(Required in Courses IV and VII.)

14. History of Chemistry. Senior. Winter and Spring, 1 hour a week.

This course puts the development of chemical theories in their historical setting and gives an intimate acquaintance with the lives of great chemists.

Prerequisite, *Chemistry* 8, or *Chemical Engineering* 6, Fall Term.

(Required in Course VIII.)

20. Practical Chemistry. Fall, Winter, Spring, 3 hours a week; with practice.

This course is intended to familiarize the student with the facts underlying the more important chemical processes involved in agricultural operations, such as fertility of soils, plant growth and the digestibility of feeds. The elementary principles of inorganic chemistry are first considered. This is followed by a detailed description of the composition of most of the common foods and feeds, and a study of the conditions affecting their composition during growth. A study of the rational feeding of men and animals completes this course. Lectures, recitations and quizzes.

Chemistry of Plant and Animal Life, *Snyder*.

Practice, Fall, Winter, 2 hours a week.

Most of the principles discussed in the lectures are confirmed by the student in the laboratory.

(Required in the two-year course in Agriculture.)

EQUIPMENT.

The department has the usual laboratory facilities, including a vacuum system for rapid filtration, a compressed-air system for use with blast lamps and a ventilating system. The laboratories are supplied with hydrant, cistern and distilled water. Each student is assigned to a lock-desk containing the necessary equipment. The large lecture room, with raised seats, has a seating capacity of one hundred. The museum occupies a large, well-lighted room. The department has a good reference library and laboratories for research.

DEPARTMENT OF ARCHITECTURAL ENGINEERING AND DRAWING.

The instruction in Freehand Drawing, Mechanical Drawing and Descriptive Geometry has three objects: First, to train the student in a general way by developing his powers of observation and imagination; second, to provide a basis for further instruction in other departments; third, to prepare the student for professional work as a draftsman.

The department is equipped with the necessary tables, models and reference books.

The courses in Drawing are as follows:

1. **Mechanical Drawing. Freshman. Fall, 4 hours a week. Practice.**

Projections, intersections, developments, and axonometric projections. Mechanical Drawing. Part I, *Giesecke*.

2. **Descriptive Geometry. Freshman. Fall, Winter, Spring, 3 hours a week; with practice.**

Problems relating to the point, line, plane, and solids; problems in tangency and intersections, in shades and shadows, and in perspective. Descriptive Geometry, *Giesecke*.

Practice, Winter, Spring, 2 hours a week.

Problems in shades and shadows and in perspective. Mechanical Drawing. Part II, *Giesecke*.

Prerequisite, *Drawing 1*.

3. **Freehand Drawing. Freshman. Winter and Spring, 2 hours a week. Practice.**

Drawing from geometrical solids, common objects, plaster casts, and still life, to study form, proportion, and light and shade.

4. **Water Color Drawing. Sophomore. Fall, 2 hours a week. Practice.**

Rendering of flat and graded washes.

Prerequisite, *Drawing 3*.

5. **Shades and Shadows, and Perspective. Sophomore. Fall, 4 hours a week. Practice.**

Special problems in shades, shadows, and perspective, arising in architectural drawing.

Prerequisite, *Drawing 1*.

6. Mechanical Drawing. Sophomore. Fall, 2 hours a week. Practice.

Working drawings of elementary parts of engineering structures. Mechanical Drawing. Part III, *Giesecke*.

Prerequisite, *Drawing 1*.

7. Mechanical Drawing. Sophomore. Winter, Spring, 4 hours a week. Practice.

Working drawings of parts of machines and other structures, tracing and photo-printing. Mechanical Drawing. Part III, *Giesecke*.

Prerequisite, *Drawing 6*.

8. Topographical Drawing. Junior. Fall, 2 hours a week. Practice.

Topographic signs, topographic maps, and out-door sketching.

Prerequisite, *Drawing 2, 4*.

9. Freehand Drawing. Junior. Fall, Winter, Spring, 2 hours a week. Practice.

Drawing from casts of architectural ornament and from the antique.

Prerequisite, *Drawing 4*.

10. Architectural Rendering. Junior. Fall, Winter, Spring, 2 hours a week. Practice.

Rendering of architectural subjects in pen and ink, pencil, and water color.

Prerequisite, *Drawing 4*.

11. Freehand Drawing. Senior. Winter, Spring, 2 hours a week. Practice.

Drawing from the antique and from life.

Prerequisite, *Drawing 9*.

20. Freehand Drawing. Freshman. Fall, Winter, Spring, 2 hours a week. Practice.

Drawing from geometrical solids, common objects, plaster casts, and still life, to study form, proportion, and light and shade.

(Required of Agricultural students only.)

21. Freehand Drawing. Sub-Freshman. Fall, Winter, Spring, 1 hour a week. Practice.

Drawing from geometrical solids and common objects to study form and proportion.

22. Mechanical Drawing. Sub-Freshman. Fall, Winter, Spring, 2 hours a week. Practice.

Use and care of drawing instruments, instrumental drawing, freehand and mechanical lettering, geometrical constructions, and projections. Mechanical Drawing. Part I, *Giesecke*.

DEPARTMENT OF ENGLISH.

PROFESSOR FOUNTAIN.

ASSOCIATE PROFESSOR LOMAX.

MR. THOMAS. MR. FOLLETT.

MR. EMBRY. MR. BRITTEN.

The aim of this department is to give students such training as will enable them to use their mother tongue readily and accurately. The instruction, therefore, is practical rather than theoretical. Frequent written exercises are required, and these exercises are not only carefully read by the instructor, but are also discussed in personal conferences with the individual student. In this way each student has his attention called to his most frequent errors; and suggestions, especially adapted to his needs, are made. Experience has proved that a student often gets more benefit from a fifteen-minutes' personal conference with an instructor than he does from an hour's lecture in the class room.

The courses are as follows:

1. Rhetoric and Composition. Freshman. Fall, Winter, Spring, 3 hours a week.

This course consists of recitations, readings from masterpieces of literature, composition writing, and personal conferences at hours to be arranged with the instructors.

Required of all Freshmen.

2. English Literature. Sophomore. Fall, Winter, Spring, 2 hours a week.

This course affords an opportunity for the student to obtain a general knowledge of the outline of English Literature, the different stages of development being illustrated by the critical reading of a classic of each period. Students are also required to do a large amount of reading outside of the class room and to submit written reports on what they read.

Required of all Sophomores.

3. English Composition. Fall, Winter, Spring, 1 hour a week.

This course is intended to give practice in organizing and writing longer themes than are required in Course 1. In addition to weekly compositions, the work will involve recitations and personal conferences.

Required of all Sophomores in Engineering courses.

4. Advanced Composition. Fall, Winter, Spring, 3 hours a week.

This course will involve continual practice in writing, and a study of

modern English literature illustrating the principal kinds of prose composition. Personal conferences with the instructor will be required.

Required of all Juniors in Agricultural courses.

5. Argumentation. Fall, Winter, Spring, 1 hour a week.

This course will involve a study of the essentials of Argumentation, and practice in drawing briefs.

Required of all Juniors in Engineering courses.

TWO-YEAR COURSE IN AGRICULTURE AND THE TWO-YEAR COURSE IN TEXTILE ENGINEERING.

9. First Year. Grammar and Composition. Fall, Winter, Spring, 3 hours a week.

The work of this year consists of a rapid but thorough review of the essentials of English Grammar, composition writing, and personal conferences with instructors.

10. Second Year. Composition and Rhetoric. Fall, Winter, 3 hours a week.

In this course the written exercises are longer and more difficult subjects than those of Course 9. Especial attention is given to expository and argumentative composition, and to business correspondence. Parallel reading is required in both courses.

11. Grammar and Composition. Sub-Freshman. Fall, Winter, Spring, 6 hours a week.

This course involves recitations, composition writing, and conferences with the instructor.

DEPARTMENT OF HISTORY.

PROFESSOR CHASTAIN.

ASSOCIATE PROFESSOR LEAVELL.

MR. ALEXANDER.

It is the aim of this department to have the student learn that history deals with the life of a nation in the process of growth; that the content of history is not a dead thing, but that it lives and moves; that it is dynamical and not statical; that it obeys the law of continuity; that there are no breaks or leaps; that development may hasten or may slacken, but that it is always continuous, and that the operation of the law of continuity makes history a unit. The study of the life of any people reveals certain characteristics common to the history of all civilized nations; there will be found five well marked phases—a political, a religious, an educational, and industrial, and a social phase. The student should understand that history is one continuous current moving on toward one purpose—not one destiny for government, another for church, and so on, but that all these make one life with one destiny. The student is encouraged to trace all these lines of growth, taking each great event and each series of events, discovering to what extent all institutions are affected.

Students are urged to make constant use of the College library, which contains a great many histories and biographies from which they may be able to pursue a systematic investigation for themselves.

The courses are as follows:

HISTORY.

1. English History. Freshman. Fall, Winter, Spring, 3 hours a week.

This course traces the outline of English History from the earliest times to the present. In addition to the political history of England, the development of governmental institutions and the condition of the church will receive some attention. This course is intended for those students taking Agriculture.

A Short History of England, *Cheney*.

2. English History. Sophomore. Fall, Winter, Spring, 2 hours a week.

This course is the same as Course 1, but the student is expected to do a great deal more reading than will be required of the Freshman Agriculture. This course is for all Engineering students, Sophomore year.

A Short History of England, *Cheney*; Readings in English History, *Cheney*.

ECONOMICS.

3. Economic and Social History of America. Senior. Fall, Winter, Spring, 3 hours a week.

This course includes a survey of the main facts in the economic and social development of America, a more intensive study of Southern conditions, a careful examination of several of the more important economic, political and social problems now confronting Americans. The fundamentals of economic theory are explained in connection with the study of economic history. Constant attention is paid to current happenings of economic and social significance.

Lectures, recitations, reports on assigned readings, and conferences are the methods of the course. In addition to the text-book, access to certain assigned newspapers or periodicals, and to one or two pamphlets assigned to the individual student, is required.

Economic History of the United States, *Bogart*.

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11. Ancient History. Sub-Freshman. Fall, Winter, Spring, 3 hours a week.

This course is offered in Ancient History; from the beginning of civilization in the East to the fall of the Roman Empire in the West, A. D. 476.

Ancient History, *Myers*.

DEPARTMENT OF LANGUAGES.

PROFESSOR CAMPBELL.

Students coming from the high schools of the State find here the opportunity to continue their linguistic studies by the side of technical courses, to which these studies lend effective aid.

It is the object of the department to impart a practical knowledge of German, French or Spanish, such as will benefit the student in the prosecution of a scientific career. To this end, the text-books used and the method of imparting instruction are practical.

In the beginning courses a thorough drill in the elements of the language, its structure, and its pronunciation is given through daily oral and written exercises. The reading of simple texts is undertaken as early as possible.

In the advanced courses the reading is gradually adapted to the scientific work of other departments. Thorough drill is given upon the idioms, and special stress is laid upon the cognate relations with the English. Frequent dictation and sight reading exercises are given. Parallel reading of selected texts is required, in addition to the regular class work.

Courses 1 and 2, or 3 and 4, are required of Architectural Engineering students.

The courses are as follows:

1. **French, Beginning.** Junior. Fall, Winter, Spring, 3 hours a week.
Grammar, *Thieme* and *Effinger*; Reader, *Super*.
2. **French, Advanced.** Senior. Fall, Winter, Spring, 3 hours a week.
Sans Famille, L'Abbé Constantin, Scientific Reader, *Bowen*.
3. **German, Beginning.** Junior. Fall, Winter, Spring, 3 hours a week.
Grammar, *Spanhoffd*; Hewitt's Reader, *Hewitt*.
4. **German, Advanced.** Senior. Fall, Winter, Spring, 3 hours a week.
Immensee, Höher als die Kirche, selected scientific texts.
5. **Spanish, Beginning.** Fall, Winter, Spring, 3 hours a week.
Spanish Grammar and Reader, *Giese*.
6. **Spanish, Advanced.** Fall, Winter, Spring, 3 hours a week.
Gil Blas, El Capitán Veneno, and others.

DEPARTMENT OF MATHEMATICS.

PROFESSOR PURYEAR.

ASSOCIATE PROFESSOR SMITH.

MR. J. W. MITCHELL.

MR. MICHIE.

MR. GARNER.

MR. JONES.

MR. NICHOLS.

Instruction in this department is given by the use of approved textbooks, supplemented by oral explanations and informal lectures. The student's knowledge of the subject is tested daily at the blackboard, and, in each course written solutions of selected problems and review exercises involving the work of preceding courses are frequently assigned. Prominence is given to practical applications.

Of the courses described below, students in Textile Engineering take 1, 2, 3, 4; other Engineering students, 1 to 7, inclusive; Agricultural Freshmen, 11 in 1910-11; 2 and 10 thereafter; Sub-Freshmen, 11, 12.

1. Solid Geometry. Freshman. Fall, 3 hours a week.

The course will include definitions, lines and planes in space, dihedral angles, polyhedral angles, polyhedrons, the cylinder, cone and sphere. Solid Geometry, *Wentworth*.

2. Algebra. Freshman. Fall, 3 hours a week.

The course will include quadratic equations, ratio, proportion, variation; arithmetical, geometrical and harmonical progressions. Complete Secondary Algebra, *Fisher* and *Schwatt*.

3. Advanced Algebra. Freshman. Winter, 6 hours a week.

The course will include permutations, combinations, limits, infinite series, undetermined coefficients, partial fractions, binomial theorem, logarithms, logarithmic and exponential series, and such other topics as the time may allow. Complete Secondary Algebra, *Fisher* and *Schwatt*.

Prerequisite, *Mathematics 2*.

4. Plane and Spherical Trigonometry. Freshman. Spring, 6 hours a week.

The course will include goniometry, review of logarithms, solution of right triangles, problems of heights and distances, properties of triangles, solution of oblique triangles, geometrical applications and a brief treatment of spherical trigonometry. Plane and Spherical Trigonometry, *Taylor* and *Purveyar*.

Prerequisite, *Mathematics 1, 2*.

5. Analytic Geometry. Sophomore. Fall, 6 hours; Winter, 3 hours a week.

The course will include the straight line, transformation of co-ordinates, circle, ellipse, hyperbola, the general equation of the second degree, solid analytic geometry. Analytic Geometry, *Nichols*.

Prerequisite, *Mathematics 4*.

6. Differential and Integral Calculus. Sophomore. Winter, 3 hours; Spring, 6 hours a week.

The course will include differentiation, expansion of functions, indeterminate forms, functions of several variables, tangent and normal, curvature, evolute and involute, maxima and minima; integration, lengths, areas, volumes, moments of inertia. Differential and Integral Calculus, *Osborne*.

Prerequisite, *Mathematics 3, 4, 5*.

7. Practical Mathematics. Junior. Fall, 3 hours a week.

Applications of the Calculus to engineering problems. Practical Mathematics, *Saxelby*.

Prerequisite, *Mathematics 6*.

10. Plane Trigonometry. Freshman. Fall, Winter, 3 hours a week.

Plane and Spherical Trigonometry, *Taylor and Puryear*.

Prerequisite, *Mathematics 2*.

11. Plane Geometry. Sub-Freshman. Fall, Winter, Spring, 3 hours a week.

The course will include definitions, rectilinear figures, the circle, similar polygons, areas of polygons, regular polygons, measurements of the circle. Plane Geometry, *Wentworth*.

12. Algebra. Sub-Freshman. Fall, Winter, Spring, 3 hours a week.

This course includes simultaneous equations of the first degree, involution, evolution, surds, complex numbers, theory of exponents, equations containing radicals, quadratic equations with one unknown quantity. Complete Secondary Algebra, *Fisher and Schwatt*.

DEPARTMENT OF MILITARY SCIENCE.**CAPTAIN MOSES.**

The main object of the military instruction given at this College is to qualify students to be company officers of infantry, volunteers of militia.

Graduates of this College may be given the opportunity by the War Department of taking the competitive examination for commissions as second lieutenant in the regular army; and their services are in demand as officers in the organizations of native troops in the Philippine Islands.

The Cadet Corps, which includes all students in attendance at the College, is organized as a regiment of infantry, consisting of band and three battalions of four companies each, besides a platoon of field artillery. All military instruction is under the immediate charge of the Commandant.

The officers and non-commissioned officers are selected from the Senior, Junior and Sophomore classes. They are appointed by the Commandant upon the approval of the President. Their appointments are dependent upon the active and soldierly performance of their duties, their sense of duty and responsibility, and their general good conduct and class standing.

The military system is an aid in enforcing discipline and securing regularity in the performance of academic duties, and tends to inculcate in the students habits of truthfulness and manliness of character, which characterize young men as gentlemen.

The courses are as follows:

1. Drill Regulations. Sophomore. Fall, Winter, Spring, 1 hour a week.

The course includes infantry drill regulations through the schools of the soldier, company, battalion and regiment, both in close and extended order; reviews, inspections, parades, guard mounting, guard duty, small arms firing regulations, field service regulations and instructions in making out military records. It includes talks and lectures upon tactics, marching, camping, sanitation and modern firearms.

2. Military Science. Senior. Fall, 1 hour a week.

This course includes the study of Napoleon's Italian Campaigns, in which the class is given lessons and required to stand a written examination. In connection with the lessons given to the class, the instruction also includes lectures upon organization, marches, discipline, rations, map reading, shelter trenches, duties of a company commander, and a

resume of the military history, the military system, and of the military policy of the United States.

Napoleon Bonaparte's First Campaign, *Sargent*; The Campaign of Marengo, *Sargent*; Military Map Reading, *Beach*.

3. Drill. All Classes. Fall, Winter, Spring, 3 hours a week.

Infantry drill through the schools of the soldier, company, battalion and regiment in close and extended order, advance and rear guard, outposts and marches, regimental review, inspection, parade, escort of the colors, guard mounting, target practice for the Senior class, instruction in company reports, muster rolls, rosters, etc.

Field artillery drill through the school of the cannoneer for students assigned to the field battery.

DEPARTMENT OF PHYSICS.

ASSOCIATE PROFESSOR KIDD.

MR. WOOTEN.

MR. JOHNSON.

It is the aim of this department to give a thoroughly practical course in Physics. The work is carried on by recitations, supplemented with numerous illustrated lectures, quizzes, and practical problems. Every possible effort is exerted to make the work thoroughly practical, and to accomplish this the department is supplied with a large amount of first-class apparatus for demonstration purposes.

The courses are as follows:

1. **General Physics. Freshman. Fall, Winter, Spring, 3 hours a week; with practice.**

Lectures, recitations, problems, and illustrations in elementary mechanics, sound, light, and heat. This course is intended for students in the regular Agricultural course.

Practice, 2 hours a week.

The student is required to make accurate measurements of areas, lengths, volumes, weights, and densities. The student must make these determinations with neatness and dispatch, using either the Metric or English system as the instructor may designate. Laboratory Physics, *Crew & Tatnall.*

2. **General Physics. Sophomore. Fall, 3 hours a week; with practice.**

This course is a continuation of Course 1, the work of the term being largely devoted to elementary electricity and magnetism.

Prerequisite, *Physics 1, 2, and Mathematics 3, 4.*

Practice, 2 hours a week.

The work is covered by notes written especially for this course.

3. **Elementary Physics. Freshman. Fall, Winter, Spring, 2 hours a week; with practice.**

Lectures, recitations, problems, and illustrations in elementary mechanics, sound, light, and heat. This course is required of all Engineering students and particular stress is laid on problems presented in text-book and class. Physics for Elementary Schools, *Adams.*

Practice, 2 hours a week.

The practice includes measurements of volumes, areas, weights, densities, and moments. A thorough working knowledge of both the English and the Metric systems is required. Laboratory Physics, *Crew & Tatnall.*

4. **General Physics.** Sophomore. Fall, Winter, Spring, 3 hours a week; with practice.

Lectures, recitations, problems, and lantern illustrations in the theory of mechanics, sound, light, heat, electricity, and magnetism. In this course particular stress is laid on the derivation of the various formulae necessary for a thorough understanding of the mathematical relations existing in physical determinations. This course is required of all Engineering Sophomores. University Physics, *Carhart*.

Prerequisite, *Physics* 3, and *Mathematics* 1, 3, 4.

Practice, 2 hours a week.

The practice includes magnetic determinations, and measurements in calorimetry and electricity.

10. **Elementary Physics.** Spring, 3 hours a week; with practice.

Lectures and recitations in Elementary Physics. For students in the two-year course in Agriculture.

Practice, 2 hours a week.

11. **Elementary Physics.** Sub-Freshman. Fall, Winter, Spring, 3 hours a week.

Recitations and class room demonstrations in elementary Physics.

SUB-FRESHMAN CLASS.**REQUIREMENTS FOR ADMISSION.**

The requirements for admission to the Sub-Freshman class are the same as those for the Freshman class (see page 17), except as to the ground covered by the entrance examinations. The candidate for admission to the Sub-freshman class will be examined on the subjects mentioned below. The treatment given in the text-books indicated will suffice for the purpose of these examinations.

1. Algebra to simultaneous equations of the first degree, including the fundamental operations, factoring, highest common factor, lowest common multiple, fractions, equations of the first degree in one unknown. Complete Secondary Algebra, *Fisher & Schwatt*, to Chapter X.
2. History of the United States, *Mrs. Lee*.

The entrance examinations will be held Wednesday, September 28; History at 8 a. m., Algebra at 2 p. m.

COURSE OF STUDY.

The course of study for the Sub-freshman class is as follows:

SUB-FRESHMAN YEAR.

Note.—The number following the name of a department refers to the number of the course as shown in the description of the department. Practice is indicated by italics.

Fall.	Hours per week.	Winter.	Hours per week.	Spring.	Hours per week.
English 11	6	English 11	6	English 11	6
Grammar and Comp.		Grammar and Comp.		Grammar and Comp.	
History 11	3	History 11	3	History 11	3
Ancient.		Ancient.		Ancient.	
Mathematics, 11, 12	6	Mathematics, 11, 12	6	Mathematics, 11, 12	6
Geometry, Algebra.		Geometry, Algebra.		Geometry, Algebra.	
Physics 11	3	Physics 11	3	Physics 11	3
Elementary.		Elementary.		Elementary.	
<i>Drawing 21, 22</i>	3	<i>Drawing 21, 22</i>	3	<i>Drawing 21, 22</i>	3
<i>Mechanical Eng. 35</i>	4	<i>Mechanical Eng. 35</i>	4	<i>Mechanical Eng. 35</i>	4

SUMMER SCHOOL AND SUMMER NORMAL SCHOOL.

The second session of the Summer School and of the Summer Normal School of the Agricultural and Mechanical College of Texas will open June 20, and will continue six weeks.

The work of the summer session is open to men and women on equal terms. It includes courses in Agriculture for teachers in the public schools, courses for farmers, for young men preparing to enter College and for students of the College desiring to secure College credits.

The Summer Normal School will be conducted under the regulations of the State Department of Education.

At the close of the session there will be held examinations for those who wish to secure certificates or to raise the grade of their certificates.

The total expenses, including fees, board, lodging, lights, laundry, will be about \$45.00.

For special Summer School pamphlet, address the Dean.

GENERAL INFORMATION.**GRADES, REPORTS, EXAMINATIONS AND ADVANCEMENT.**

Records of the standing of each student are kept by the instructors in the several departments. This standing is indicated by a system of marks based upon 100 as a maximum.

At the end of each term, examinations are held and a report is mailed to the parent or guardian of each student, showing his class standing and conduct.

The passing mark is 66 for the Freshman and Sophomore classes and 70 for the Junior and Senior classes.

Reports to parents or guardians are made in terms of letters with the following meanings: 90 to 100, inclusive, A; 80 to 89, inclusive, B; passing mark to 79, inclusive, C; 50 up to the passing mark, D; below 50, E. In "practice" only two grades are given: P passed; F failed. Students who receive a grade E in any subject must take the subject over in class in order to receive credit.

EXAMINATION SCHEDULE FOR SESSION 1910-1911

	Thursday, December 15.	Friday, December 16.	Saturday, December 17.	Monday, December 19.	Tuesday, December 20.	Wednesday, December 21.	Thursday, December 22.
FALL TERM							
Fr. Ag.		Phys. 1	Math. 11	Bot. 1	A. H. 1	Hist. 1	Engl. 1
1st yr. 2-yr. Ag.		A. H. 3	Engl. 9	Hort. 1	A. H. 1	T. E.	Ag. 15
1st yr. 2-yr. T. E.			Engl. 9	T. E. 1	T. E. 2		T. E. 12
Fr. Eng.	Draw. 2	M. E. 1	Math. 1	Phys. 3	M. E. 2	Math. 2	Engl. 1
Soph. Ag.		A. H. (3)	Phys. (6)	Engl. (2)	Bot. (1)	Chem. (1)	Ag. (1)
2nd yr. 2-yr. Ag.		Ag. (4)	Ag. (10)	Engl. (3b)	Hort. (4)	Vet. Sc. (2)	Chem. (8)
2nd yr. 2-yr. T. E.			T. E. (3)	Engl. (3b)	T. E. (7)		T. E. 11
Soph. A. E., Soph. C. E.		Phys. (2)	Draw. (6)	Engl. (2)	Lang.		Math. (4)
Soph. E. E., M. E. & T. E.		Phys. (2)	Draw. (6)	Engl. (2)	M. E. (1)		Math. (4)
Soph. Chem. E.		Phys. (2)	Draw. (6)	Engl. (2)		Chem. (1)	Math. (4)
Jr. Ag., Group A.	Phys. (5)	C. E. (1)	Ag. (4)	Ag. (2)	Vet. Sc. (3)	Vet. Sc. (2)	Chem. (5)
Jr. Ag., Group B.	Phys. (5)	C. E. (1)	Ag. (4)		Vet. Sc. (3)	Hort. (4)	Chem. (5)
Jr. Ag., Group C.	Phys. (5)		Ag. (10)	Ag. (2)	Vet. Sc. (3)	Vet. Sc. (2)	Chem. (5)
Jr. A. E.		Math. (7)		Phys. (3)	A. E. (1)	Chem. (1)	Lang.
Jr. C. E.		Math. (7)		Phys. (3)	C. E. (2)	Chem. (1)	Lang.
Jr. Ch. E.		Math. (7)		Phys. (3)	M. E. (1)	Ch. E. (1)	Chem. (2)
Jr. E. E.		Math. (7)		Phys. (3)	M. E. (5a)	Chem. (1)	E. E. (1)
Jr. M. E.		Math. (7)	M. E. (4)	Phys. (3)		Chem. (1)	C. E. (9)
Jr. T. E.		Math. (7)	T. E. (2)	Phys. (3)	T. E. (6)	Chem. (1)	T. E. (10)
Sr. Ag., Group A.	Bot. (4) ?		Mil. Sc. (2)	Hist. (3)	A. E. (1)	Bot. (2) ?	A. H. (7)
Sr. Ag., Group B.		Hort. (14)	Mil. Sc. (2)	Hist. (3)		Bot. (2)	Entom. (4)
Sr. Ag., Group C.	Bot. (4) ?	A. H. (10)	Mil. Sc. (2)	Hist. (3)	A. E. (1) ?	A. H. (9)	A. H. (7)
Sr. A. E.		C. E. (3)	Mil. Sc. (2)	Hist. (3)	Math. (8)	A. E. (3b)	C. E. (5)
Sr. C. E.		C. E. (3)	Mil. Sc. (2)	Hist. (3)	Math. (8)	C. E. (6)	C. E. (5)
Sr. Ch. E.		C. E. (3)	Mil. Sc. (2)	Hist. (3)	M. E. (5a)	Ch. E. (7)	Ch. E. (9)
Sr. E. E.		E. E. (10)	Mil. Sc. (2)	Hist. (3)	Math. (8)	E. E. (2)	E. E. (4)
Sr. M. E.		C. E. (3)	Mil. Sc. (2)	Hist. (3)	Math. (8)	Ch. E. (1)	M. E. (6)
Sr. T. E.		T. E. (3)	Mil. Sc. (2)	Hist. (3)	T. E. (12)	T. E. (8) _r	Chem. (2)

EXAMINATION SCHEDULE FOR SESSION 1910-11.

WINTER TERM	Saturday, March 11.	Monday, March 13.	Tuesday, March 14.	Wednesday, March 15.	Thursday, March 16.	Friday, March 17.	Saturday, March 18.
Fr. Ag.		Bot. 1	Math. 11	Engl. 1	Phys. 1	Hist. (1)	Agr. (1)
1st yr. 2-yr. Ag.		Bot. 11	Bot. 10	Hort. 2	Vet. Sc. 1	Engl. 9	A. H. 11
1st yr. 2-yr. T. E.			T. E. 1	T. E. 2		Engl. 9	
Fr. Eng.		M. E. (1)	Math. (3)	Engl. (1)	M. E. (2)	Draw. (2)	Phys. (3)
Soph. Ag.		Bot. (1)	Chem. (1)	Hort. (2)	Vet. Sc. (1)	Math. (3)	Engl. (2)
2nd yr. 2-yr. Ag.		A. H. (5)	Ag. (8)	A. H. (7)	Engl. (3b)	Chem. (8)	Bot. (6)
2nd yr. 2-yr. T. E.			T. E. (11)	T. E. (7)		Engl. (3b)	T. E. (3)
Soph. A. E., Soph. C. E.		Phys. (2)	Lang.	Math. (5)*	Draw. (6)	Math. (6)	Engl. (2)
Soph. E. E., M. E. & T. E.		Phys. (2)	M. E. (1)	Math. (5)	Draw. (6)	Math. (6)	Engl. (2)
Soph. Chem. E.		Phys. (2)	Chem. (1)	Math. (5)	Draw. (6)	Math. (6)	Engl. (2)
Jr. Ag., Group A.		Ag. (5)	Entom. (2)	Mil. Sc. (1)	Phys. (5)	Vet. Sc. (4)	Chem. (5)
Jr. Ag., Group B.		Hort. (7)	Entom. (2)	Mil. Sc. (1)	Phys. (5)	Vet. Sc. (4)	Chem. (5)
Jr. Ag., Group C.		A. H. (5)	Entom. (2)	Mil. Sc. (1)	Phys. (5)	Vet. Sc. (4)	Chem. (5)
Jr. A. E.		A. E. (3a)	E. E. (15)	Mil. Sc. (1)	Chem. (1)	Math. (7)	Lang.
Jr. C. E.		C. E. (2)		Mil. Sc. (1)	Chem. (1)	Math. (7)	Lang.
Jr. Ch. E.			Phys. (3)	Mil. Sc. (1)	Ch. E. (2)	Math. (7)	Chem. (2)
Jr. E. E.		M. E. (5a)	Phys. (3)	Mil. Sc. (1)	Chem. (1)	Math. (7)	
Jr. M. E.		M. E. (5)	Phys. (3)	Mil. Sc. (1)	Chem. (1)	Math. (7)	
Jr. T. E.		T. E. (10)	Phys. (3)	Mil. Sc. (1)	Chem. (1)	Math. (7)	T. E. (6)
Sr. Ag., Group A.		Ag. (7)	Hist. (4)	Bot. (3)? Ag. (11)?		A. H. (5)	Agr. (6)
Sr. Ag., Group B.		Ag. (7)	Hist. (4)	Bot. (3)		Hort. (10)	Hort. (10)
Sr. Ag., Group C.		Ag. (7)?	Hist. (4)	Ag. (11)?		A. H. (8)	A. H. (11)
Sr. A. E.			Hist. (4)	A. E. (8)		A. E. (3c)	A. E. (9)
Sr. C. E.		C. E. (6a)	Hist. (4)	C. E. (6)	C. E. (5)		C. E. (4)
Sr. Ch. E.		M. E. (5a)	Hist. (4)	Ch. E. (9)		Ch. E. (7)	M. E. (7)
Sr. E. E.			Hist. (4)	Math. (9)	E. E. (2)	E. E. (10)	E. E. (3)
Sr. M. E.		M. E. (6)	Hist. (4)	Math. (9)	Ch. E. (2)		M. E. (7)
Sr. T. E.		T. E. (8)	Hist. (4)		T. E. (3)	T. E. (12)	Chem. (2)

EXAMINATION SCHEDULE FOR SESSION 1910-11.

SPRING TERM	Monday, May 29.	Tuesday, May 30.	Wednesday, May 31.	Thursday, June 1.	Friday, June 2.	Saturday, June 3.
St. Ag., Group A.	Ag. (9)		Hist. (5)	Bot. (3)? (4)? Ag. (12)?	Ag. (8)	
St. Ag., Group B.	Hort. (13)		Hist. (5)	Bot. (3)	Hort. (11)	Hort. (12)
St. Ag., Group C.	A. H. (11)		Hist. (5)	Ag. (12)?	Ag. (8)?	A. H. (9)
St. A. E.	A. E. (11)	A. E. (10)	Hist. (5)	Chem. (3)	C. E. (7)	
St. C. E.	C. E. (8a)	C. E. (8b)	Hist. (5)	Chem. (3)	C. E. (7)	
St. Ch. E.	M. E. (5a)	Ch. E. (8)	Hist. (5)	M. E. (7)		Ch. Eng. (9)
St. E. E.	E. E. (10)	E. E. (11)	Hist. (5)		C. E. (3)	E. E. (3)
St. M. E.	M. E. (8)	M. E. (9)	Hist. (5)	M. E. (7)		Ch. Eng. (3)
St. T. E.	T. E. (14)	T. E. (3)	Hist. (5)	Chem. (4)	T. E. (12)	
	Monday, June 5.	Tuesday, June 6.	Wednesday, June 7.	Thursday, June 8.	Friday, June 9.	Saturday, June 10.
Fr. Ag.	Hist. (1)	Bot. (2)	Hort. (1)	Phys. (1)	Engl. (1)	Math. (11)
1st yr. 2-yr. Ag.	Ag. 16	A. H. 4	Bot. 10	Engl. 9	Phys. 10	Hort. 3
1st yr. 2-yr. T. E.		T. E. 12	T. E. 1	Engl. 9	T. E. 2	
Fr. Eng.	M. E. (1)	Draw. (2)	Phys. (3)	M. E. (2)	Engl. (1)	Math. (4)
Soph. Ag.	Engl. (2)	A. H. (4)	Chem. (1)	Bot. (1)	Math. (3)	Hort. (3)
2nd yr. 2-yr. Ag.	Ag. (9)	Hort. (6)	Vet. Sc. (6)	Chem. (8)	A. H. (8)	Entom. (3)
2nd yr. 2-yr. T. E.		T. E. (3)	T. E. (13)	Engl. (3b)	T. E. (11)	
Soph. A. E., Soph. C. E.	Engl. (2)	Math. (4)	Math. (4)	Phys. (2)	Lang.	C. E. (1)
Soph. E. E., Soph. M. E.	Engl. (2)	Math. (6)	Math. (6)	Phys. (2)	M. E. (2)	C. E. (1)
Soph. T. E.	Engl. (2)	Math. (6)	Math. (6)	Phys. (2)	M. E. (2)	T. E. (1)
Soph. Chem. E.	Engl. (2)	Math. (6)	Chem. (1)	Phys. (2)		C. E. (1)
Jr. Ag., Group A.	Ag. (10)	Ag. (3)	Vet. Sc. (6)	Phys. (5)	Chem. (5)	Entom. (3)
Jr. Ag., Group B.	Vet. Sc. (5)? Ag. (10)?	Hort. (6)	Hort. (8)	Phys. (5)	Chem. (5)	Entom. (3)
Jr. Ag., Group C.	Vet. Sc. (5)	Ag. (3)	Vet. Sc. (6)	Phys. (5)	Chem. (5)	A. H. (6)
Jr. A. E.	C. E. (3)	Math. (7)	Chem. (1)	Lang.		C. E. (5)
Jr. C. E.	C. E. (3)	Math. (7)	Chem. (1)	Lang.		C. E. (5)
Jr. Ch. E.	C. E. (3)	Math. (7)		Phys. (4)	Chem. (3)	Ch. E. (3)
Jr. E. E.		Math. (7)	Chem. (1)	Phys. (4)	M. E. (5a)	E. E. (1)
Jr. M. E.	C. E. (3)	Math. (7)	Chem. (1)	Phys. (4)		M. E. (5)

SPECIAL EXAMINATIONS.

Special examinations will in no case be given without Faculty action; but there will be examinations at the opening of each session for deficient students having a grade D. Students who wish to be examined at that time must send to A. B. WILCOX, Secretary of the College, at least ten days before the first day of the session, a statement of the subjects on which they wish to be examined; this statement should give the department, term and the course number for each subject.

GRADUATION.

A diploma of the College, with the degree corresponding to the course of study pursued, will be granted students who complete one of the regular courses and pass satisfactory examinations on all of the branches therein. Each candidate for graduation is required to prepare a thesis upon a subject bearing upon his work in some scientific or practical department. The subject must be submitted to the Faculty for approval by March 1st. The thesis must be satisfactory to the head of the department in which it was written.

The diploma fee is \$5.00.

HONORS.

At the end of each session students who have during the year received no term grade below B and have no deficiency in "Practice" are announced as "Distinguished."

MAIN BUILDING.

The main building, erected in 1876, stands on the highest point on the grounds. It is four stories high, and contains about forty rooms, used for offices, section rooms, library, book store, society halls, drawing rooms, etc.

MECHANICAL ENGINEERING BUILDING.

North of the main building is the building occupied by the Department of Mechanical Engineering. It consists of two distinct parts: First, the one containing the carpenter shop, section rooms, design room and department office; second, that containing the blacksmith shop, machine shop, wood-turning room, and experimental laboratory. The first mentioned part is a two-story part having the carpenter shop on the first floor and the other rooms on the second. The second part of the building is a high one-story structure, containing the departmental equipment belonging to the work therein cared for, also an additional steam engine which furnishes the power for the shops.

AGRICULTURAL AND HORTICULTURAL BUILDING.

This building was planned to accommodate the agricultural and horticultural departments of the College and the Experiment Station by furnishing rooms for class instruction, laboratory investigations, museum purposes, butter and cheese making, pasteurizing milk, seed store room, photographic room, and the necessary offices for the accommodation of these departments. The building is 160 feet long and 77 feet wide, two stories high, and covered with slate. It contains twenty-seven rooms, fitted with apparatus and machinery for the instruction of students in the several branches of agriculture and horticulture.

CHEMICAL AND VETERINARY LABORATORY.

This building, erected in 1902, is 138 feet long and 130 feet deep. It is built of brick and contains two stories and a basement. On the first floor the Veterinary Department has its office, veterinary laboratory, students' laboratory, dissecting room, operating room, museum, lecture room and apparatus room. The Chemical Department has on the same floor two store rooms, an assay room and a laboratory for State chemical work.

The second floor comprises the chemical and mineralogical museum, office and private laboratory of the professor of chemistry, two lecture rooms, balance room, two supply rooms and three laboratories for students.

The building is ventilated by a fan operated by a motor in the basement. The fan room is connected by pipe with all hoods in the laboratories, by which the entire volume of air in the building can be changed every two and one-half minutes. The building is supplied with electric lights, water and gas.

VETERINARY HOSPITAL.

The Veterinary Hospital, erected in 1908, contains a large clinic room, 36x36 feet, eight box stalls, four tie stalls, two rooms for dogs, a large colic stall, feed room, medicine room, janitor's room, etc. The building is floored with concrete, with traps from each stall to the sewer, thus enabling us to properly isolate contagious diseases and to thoroughly disinfect each stall. An automatic flush tank enables us to keep the building in a sanitary condition.

TEXTILE BUILDING.

This building is constructed of smooth red brick, according to the plans of an expert mill engineer, and is an excellent example of modern cotton mill construction. The construction is of the slow-burning type generally accepted by American engineers as the most satisfactory for cotton manufacturing.

The building is two stories high, 50 feet wide and 180 feet long. The first floor is occupied by the carding and spinning and warp-preparation machinery, and the Professor's office. The second floor is occupied by the weaving and cloth-finishing machinery, and by the designing and class rooms, and the offices of the instructors in weaving.

The building is heated throughout by a Webster vacuum system of steam heat, and a complete sprinkler system for fire protection has been installed. The plumbing in the building is perfectly sanitary, and typical of the best cotton mill practice.

CIVIL ENGINEERING BUILDING.

This building, erected in 1909, and used to house the departments of Civil Engineering, Architectural Engineering and Drawing, and Physics, contains nine lecture rooms, five laboratories, four drawing rooms, and several offices and store rooms.

The building is 125 feet wide and 73 feet deep; it has a basement and three stories, is heated by steam, and is practically fire-proof.

EXPERIMENT STATION BUILDING.

This building, erected 1909, contains offices, laboratories and store rooms for the officers of the Experiment Station.

The building is 115 feet wide and 61 feet deep; it has a basement and two stories, is heated by steam, and is practically fire-proof.

GATHRIGHT HALL.

This building was erected in 1876, and is named in honor of Thomas L. Gathright, the first President of the College. Thirty of the rooms in it are occupied by students; the others are used as section rooms, instrument rooms and laboratories of the Department of Physics and Electrical Engineering.

PFEUFFER HALL.

This is a dormitory, erected in 1887, and contains twenty-five rooms. It is named in honor of George Pfeuffer, a former President of the Board of Directors.

AUSTIN HALL.

This is a dormitory, erected in 1888, and contains twenty-five rooms. It is named in honor of Stephen F. Austin.

ROSS HALL.

This is another and more commodious dormitory, erected in 1892, three stories high, with forty-one rooms. It is named in honor of former President L. S. Ross.

FOSTER HALL.

This building was erected in 1899, and is named in honor of former President L. L. Foster. It is a dormitory and consists of three separate parts; the central part is four stories high and contains nineteen rooms; the two ends are three stories high and contain eighteen rooms each.

GOODWIN HALL.

This dormitory was erected in 1908 and named in honor of Hon. G. I. Goodwin. It contains eighty-two rooms, is equipped with a hot-water heating system and modern toilet facilities.

ASSEMBLY HALL.

This is a two-story brick building, erected in 1889, having a main floor and gallery. In it are held the public exercises of the College.

MESS HALL.

This building was erected in 1897. The dining hall has capacity for over five hundred students.

NATATORIUM.

This building was erected in 1908 and is thoroughly equipped for shower baths. It contains forty-six dressing rooms, thirty-two stalls supplied with hot and cold water for shower baths, toilet facilities, and rooms for the attendants.

SEWERAGE SYSTEM.

The College is provided with an efficient system of sewers, to which are connected the various barracks, the main building, the agricultural and horticultural hall, the steam plant, the infirmary, the mess hall, and the residences. The outfall of the system is three-fourths of a mile from the nearest College building and nine-tenths of a mile from the nearest recitation hall or barracks building.

FARM BUILDINGS.

The farm buildings of the College and Experiment Station are situated to the rear of the main building, and consist of a farm implement building, a mule barn, a general farm barn, a large dairy barn with two silos, each of 200 tons capacity.

OTHER IMPROVEMENTS.

Other improvements comprise a laundry, an ice plant with a daily capacity of five tons, a system of waterworks, an electric light and cold storage plant.

GROUNDS AND GARDEN.

The garden, orchard, barnyards and campus are included in the enclosure to the east of the railroad station. The campus consists of some twenty-five acres of lawn, shrubbery and flowers.

The orchard, vineyard, nursery and garden are located north and east of the main building, and comprise about fifty acres.

FARM.

The farm proper comprises about three hundred and fifty acres, not including pasture lands. The pastures contain in the neighborhood of two thousand acres, and furnish grazing for the College herds.

LIBRARY.

The library contains about 11,000 volumes. Of these 5000 are standard works of history, biography, agriculture, mechanics, engineering, mathematics, natural science, economics, philosophy, poetry, fiction, general literature and reference, thoroughly classified, indexed and catalogued. There are about 6000 volumes of public documents, and the various pamphlets, etc., issued by other similar institutions in the United States. The library is open six days in the week, from 8:30 a. m. till 5:30 p. m. About fifty standard technical and general periodicals and several of the leading daily papers are subscribed for.

LITERARY SOCIETY.

The Austin Literary Society meets once a week for practice in debate, literary composition and declamation.

RELIGIOUS AND MORAL CULTURE.

There is religious service in the chapel every Sunday for the corps of students and the residents of the campus. A Sunday school for Bible study, attendance at which is optional, affords additional help in the way of ethical training. Every effort is made through lecture and personal example to develop and protect good morals in the young men attending the institution.

ATHLETICS.

The usual forms of athletic sports are permitted, but are not allowed to interfere with the regular College duties. No student is allowed to represent the College in any athletic contest if he is deficient in his studies.

Members or officers of athletic teams must fulfill the following conditions:

1. Unless they are 21 years of age they must have written permission of parent or guardian addressed to the Dean.

2. They must have passed in work amounting to at least twelve term hours in their last term.

3. They must be diligently pursuing the course for which they are registered as indicated by special reports made by their instructors to the Dean. If deficient in more than two subjects they will not be allowed to take part in any intercollegiate contest for one month.

No organization representing the College will be allowed to be absent more than eight working days in any term; if a student is a member of more than one organization his absences on such trips may not be more than ten working days in any session.

Members of teams shall be responsible to the Physical Director or his representatives for their conduct while at athletic practice and while on trips.

Thirty-six members of the football squad and twenty-four of the baseball squad and fifteen of the track squad are excused from drill during the respective seasons; the duration of the exemption to be determined by the Dean and the Commandant.

Members of squads excused from drill are responsible to the Physical Director for regular attendance at athletic practice.

The Faculty Committee on Athletics is intrusted with the general oversight of athletics, and the Physical Director will submit to this committee all schedules and contracts for intercollegiate contests.

BAND.

An attractive feature is a regular organized cadet band. Under the direction of a leader employed by the College, it furnishes music for occasions of social and military importance, gives open-air concerts in season, leads the regiment in marching to dinner, and plays at guard mounting and dress parade.

AFFILIATED SCHOOLS.

The Faculty, with the desire to bring the College into closer relation with the schools of the State, has provided that graduates of approved schools shall be admitted to the College on diploma or certificates *at the beginning of the session* without examination. Superintendents who desire to have their schools enrolled among the affiliated schools are invited to examine the requirements for admission, and the specimen examination questions in the appendix.

The offer of affiliation is made upon the following terms: The superintendent of a school desiring affiliation should obtain from the Secretary of the College a form of application to be filled out and returned. If the application should be approved by the Faculty, the superintendent will be notified and the name of the school and that of the superintendent enrolled in the catalogue. The diploma of an affiliated school will admit the candidate to the Freshman class. The privilege of affiliation will be withdrawn from any school whose graduates show a lack of thoroughness in their preparation for the work of the College.

Catalogues of the College will be sent regularly to superintendents of affiliated schools, and they in turn will be expected to send the Dean copies of their reports or catalogues.

ENTRANCE EXAMINATIONS AT AFFILIATED SCHOOLS.

Examinations for admission to the Freshman class may be held at affiliated schools upon request of the Superintendent or Principal. Such examinations will be governed by the following regulations:

1. Not later than May 2 the Dean will send under seal entrance examination questions to affiliated schools which have applied for them.
2. The examinations will be held at such places as the examiners may appoint.
3. The dates for the examinations will be as follows:
 Monday, May 9, 9 a. m., Algebra; 3 p. m., History. Tuesday, May 10, 9 a. m., Geometry; 3 p. m., English.
4. The examiner may charge each applicant a fee of \$1.00, to be retained by the examiner.
5. The examiner shall open the sealed envelope containing the examination questions in the presence of the applicants.
6. The answers shall be written in ink on legal cap paper, on one side only, and the paper shall close with a pledge that no aid has been given or received.
7. The examination on any one subject shall not continue more than three hours.
8. As soon as the series of examinations is completed, the examiner shall forward the papers to the Dean with a certificate that the examinations have been conducted fairly and in accordance with these regulations.

LIST OF AFFILIATED SCHOOLS

Name.	Superintendent.	Location.
J. M. Abbott's High School.....	J. M. Abbott.....	San Angelo.
Abilene High School.....	J. H. Burnett.....	Abilene.
Albany High School.....	M. I. Miles.....	Albany.
Alexander Collegiate Institute.....	F. E. Butler.....	Jacksonville.
Alice Public School.....	H. N. Stamper.....	Alice.
Allen Academy.....	J. H. and R. O. Allen.....	Bryan.
Alpine.....	G. W. Page.....	Alpine.
Alvarado Normal Institute.....	A. H. Plummer.....	Alvarado.
Alvin Public School.....	A. S. J. Steele.....	Alvin.
Alvord Public School.....	J. Arthur Tibbetts.....	Alvord.
Alto Public School.....	J. M. Cook.....	Alto.
Amarillo Public School.....	W. H. Long.....	Amarillo.
Angleton High School.....	O. K. Storey.....	Angleton.
Anna High School.....	W. S. Roper.....	Anna.
Anson High School.....	L. G. Allen.....	Anson.
Arlington Public School.....	H. Tarpley.....	Arlington.
Atlanta High School.....	E. L. Lincoln.....	Atlanta.
Aubrey High School.....	John C. Roark.....	Aubrey.

AFFILIATED SCHOOLS.

133

Name.	Superintendent.	Location.
Austin High School.....	A. N. McCallum.....	Austin.
Axtell High School.....	C. C. Cross.....	Axtell.
Baird Public School.....	R. L. Patterson.....	Baird.
Ball High School.....	J. W. Hopkins.....	Galveston.
Ballinger High School.....	S. M. Byrd.....	Ballinger.
Barnett School, The.....	W. W. Barnett.....	Houston.
Bastrop Public School.....	W. P. Arnold.....	Bastrop.
Bay City High School.....	L. T. Frizzell.....	Bay City.
Beaumont High School.....	H. F. Triplett.....	Beaumont.
Beeville High School.....	W. E. Madderra.....	Beeville.
Bellville High School.....	J. B. Oliver.....	Bellville.
Bellevue High School.....	Nolan T. Gaines.....	Bellevue.
Belton Academy.....	C. H. Wedemeyer.....	Belton.
Belton High School.....	J. B. Hubbard.....	Belton.
Big Foot Public School.....	D. M. Henry.....	Big Foot.
Big Sandy Independent School.....	B. B. Elder.....	Big Sandy.
Big Springs High School.....	A. D. Ellis.....	Big Springs.
Blanco High School.....	J. E. Watkins.....	Blanco.
Blinn Memorial College.....	J. L. Neu.....	Brenham.
Boerne Public School.....	R. J. Kepke.....	Boerne.
Bonham High School.....	I. W. Evans.....	Bonham.
Bowie High School.....	G. L. Marshall.....	Bowie.
Brackett High School.....	R. E. Thomas.....	Brackettville.
Brady High School.....	M. L. Stallings.....	Brady.
Brandon High School.....	W. K. Niles.....	Brandon.
Breckenridge Public School.....	J. R. Smith.....	Breckenridge.
Bremond High School.....	C. S. Perry.....	Bremond.
Brenham Central School.....	Peyton Irving, Jr.....	Brenham.
Britton's Training School.....	O. L. Britton.....	Cisco.
Brookston High School.....	J. H. English.....	Brookston.
Brownsville Public School.....	T. B. Barbour.....	Brownsville.
Brownwood High School.....	G. H. Carpenter.....	Brownwood.
Bryan High School.....	W. C. Lawson.....	Bryan.
Buda High School.....	J. W. Peeler.....	Buda.
Buffalo High School.....	R. O. Bennent.....	Buffalo.
Burnet High School.....	M. B. Brown.....	Burnet.
Caldwell High School.....	J. M. Smith.....	Caldwell.
Calvert High School.....	J. N. Stevens.....	Calvert.
Cameron High School.....	J. E. Watts.....	Cameron.
Carbon High School.....	J. J. Adams.....	Carbon.
Carlisle Military Academy.....	J. M. Carlisle.....	Arlington.
Carney Graded School.....	James W. Watson.....	Carney.
Cedar Hill Public School.....	C. F. Christensen.....	Cedar Hill.
Celina Public School.....	C. F. Cobb.....	Celina.
Center High School.....	M. M. Dupre.....	Center.
Channing Public School.....	J. F. Smith.....	Channing.
Chillicothe Public School.....	Robt. L. Dudley.....	Chillicothe.
Cisco High School.....	S. E. Thompson.....	Cisco.
Clarksville High School.....	W. J. Gayden.....	Clarksville.

Name.	Superintendent.	Location.
Claude High School.....	Ben C. Dyess.....	Claude.
Cleburne High School.....	R. G. Hall.....	Cleburne.
Clifton High School.....	J. M. Bettis.....	Clifton.
Clyde Public School.....	S. E. Settle.....	Clyde.
Coleman Public School.....	J. E. Hickman.....	Coleman.
Collinsville High School.....	Miss Frances Jewell.....	Collinsville.
Colorado High School.....	C. L. McDonald.....	Colorado.
Columbus High School.....	R. E. Scott.....	Columbus.
Comanche High School.....	M. K. Witt.....	Comanche.
Conroe High School.....	W. C. Hanna.....	Conroe.
Copperas Cove High School.....	J. M. Witcher.....	Copperas Cove.
Cooper High School.....	J. H. Newton.....	Cooper.
Coronal Institute.....	Sterling Fisher.....	San Marcos.
Corpus Christi High School.....	C. W. Crossley.....	Corpus Christi.
Corsicana High School.....	J. E. Blair.....	Coriscana.
Coryell City School.....	Boone Huddleston.....	Coryell City.
Cotulla High School.....	R. A. Taylor.....	Cotulla.
Crawford High School.....	M. P. Dalton.....	Crawford.
Cresson Public School.....	C. D. Richardson.....	Cresson.
Crockett High School.....	B. E. Satterfield.....	Crockett.
Crowell Public School.....	E. W. Muse.....	Crowell.
Cumby Public School.....	D. T. Turbyfill.....	Cumby.
Dalhart High School.....	H. E. Gable.....	Dalhart.
Dallas High School.....	Arthur Lefevre.....	Dallas.
Dawson Public School.....	J. S. Taylor.....	Dawson.
Decatur High School.....	H. W. Barton.....	Decatur.
De Leon High School.....	A. R. Jarrett.....	De Leon.
Del Rio Public School.....	W. D. Natley.....	Del Rio.
Denison High School.....	F. B. Hughes.....	Denison.
Denton High School.....	J. S. Carlisle.....	Denton.
Deport Public School.....	J. A. Fulks.....	Deport.
Detroit Public School.....	W. I. Woodson.....	Detroit.
Devine High School.....	A. J. Cook.....	Devine.
Dodge School.....	R. E. Key.....	Dodge.
Douglas Select School.....	S. A. Douglas.....	Waco.
Dublin High School.....	J. W. Dunlap.....	Dublin.
Duffau High School.....	John Purvis.....	Duffau.
Durango Public School.....	Mrs. N. F. Alsup.....	Durango.
Eagle Lake High School.....	J. E. Briggs.....	Eagle Lake.
Eagle Pass High School.....	G. B. M. Snyder.....	Eagle Pass.
Edgewood High School.....	D. E. Dean.....	Edgewood.
Edna High School.....	J. W. Bagby.....	Edna.
El Campo Public School.....	A. W. Griggs.....	El Campo.
Elgin High School.....	Buckner Harris.....	Elgin.
El Paso High School.....	F. M. Martin.....	El Paso.
Ennis High School.....	J. D. Coghlan.....	Ennis.
Evant High School.....	D. B. Burrows.....	Evant.
Farmersville High School.....	N. A. Coston.....	Farmersville.
Flatonia High School.....	B. T. Gillespie.....	Flatonia.

Name.	Superintendent.	Location.
Florence High School.....	H. H. Bain.....	Florence.
Floresville Academy.....	W. B. Toon.....	Floresville.
Floydada Public School.....	J. O. Loftin.....	Floydada.
Ford's School.....	J. Stanley Ford.....	Austin.
Fort Davis High School.....	A. B. Tyson.....	Fort Davis.
Fort Worth High School.....	J. W. Cantwell.....	Fort Worth.
Franklin Institute.....	D. R. Hibbetts.....	Mount Vernon.
Franklin Public School.....	W. C. Crane.....	Franklin.
Frankfort Independent School.....	Miss Mary Brown.....	Frankfort.
Fredericksburg High School.....	Hy. Lott.....	Fredericksburg.
Frisco Public School.....	C. R. Benedict.....	Frisco.
Frost High School.....	L. C. Stockard.....	Frost.
Gainesville High School.....	E. F. Comegys.....	Gainesville.
Garland High School.....	Thomas W. Platt.....	Garland.
Gatesville High School.....	G. W. Harris.....	Gatesville.
Georgetown High School.....	J. W. Clark.....	Georgetown.
Giddings Public School.....	T. P. Walker.....	Giddings.
Gilmer High School.....	D. R. Hibbetts.....	Gilmer.
Gladewater High School.....	S. D. Pearce.....	Gladewater.
Glen Rose High School.....	R. E. McDonald.....	Glen Rose.
Godley High School.....	W. L. Bates.....	Godley.
Goldthwaite High School.....	W. W. Hart.....	Goldthwaite.
Goliad Public School.....	T. S. Cox.....	Goliad.
Gonzales Public School.....	Miss R. Nicholson.....	Gonzales.
Gordon High School.....	C. E. Maxwell.....	Gordon.
Gorman Public School.....	W. J. Clay.....	Gorman.
Grand Prairie Public School.....	J. A. Whitener.....	Grand Prairie.
Grapeland Public School.....	W. L. Smith.....	Grapeland.
Grapevine High School.....	P. D. Kennamer.....	Grapevine.
Graham High School.....	Edgar McLendon.....	Graham.
Grandview Public Schools.....	N. O. Robbins.....	Grandview.
Granger High School.....	T. P. Mallard.....	Granger.
Greenville High School.....	L. C. Gee.....	Greenville.
Groveton High School.....	J. R. Reynolds.....	Groveton.
Hallettsville Public School.....	K. A. Jones.....	Hallettsville.
Hamilton High School.....	E. A. Decherd.....	Hamilton.
Haskell High School.....	C. E. Thomas.....	Haskell.
Hearne High School.....	W. A. Holland.....	Hearne.
Hempstead Public School.....	C. E. Godbey.....	Hempstead.
Henderson High School.....	P. B. Bittle.....	Henderson.
Henrietta High School.....	J. L. Gragg.....	Henrietta.
Hico Graded School.....	W. E. Edelen.....	Hico.
Hillsboro High School.....	T. D. Brooks.....	Hillsboro.
Holland High School.....	T. S. Gill.....	Holland.
Hondo High School.....	C. E. Williams.....	Hondo.
Honey Grove High School.....	P. E. McDonald.....	Honey Grove.
Houston High School.....	P. W. Horn.....	Houston.
Houston Heights High School.....	A. H. Russell.....	Houston Heights.
Howe Public School.....	S. B. Sivells.....	Howe.
Huckaby Public School.....	Monroe Shults.....	Huckaby.
Hutto High School.....	J. E. Cook.....	Hutto.

Name.	Superintendent.	Location.
Iowa Park Public School.....	Lee Clark.....	Iowa Park.
Italy High School.....	W. R. Marrs.....	Italy.
Itasca High School.....	C. P. Hudson.....	Itasca.
Jacksboro High School.....	C. B. Pitman.....	Jacksboro.
Jacksonville Public School.....	A. W. Flanikin.....	Jacksonville.
Jefferson High School.....	J. G. Yarbrough.....	Jefferson.
John C. French High School.....	W. S. Fleming.....	Cuero.
Johnson City High School.....	O. R. Hewett.....	Johnson City.
Junction High School.....	D. F. McCollum.....	Junction.
Karnes City High School.....	John D. McCall.....	Karnes City.
Kaufman Public School.....	O. P. Norman.....	Kaufman.
Kemp Public School.....	J. A. Woodford.....	Kemp.
Kenedy High School.....	J. H. Naff.....	Kenedy.
Kennard Mills High School.....	J. T. Crook.....	Ratcliff.
Kirbyville High School.....	R. W. Persons.....	Kirbyville..
Kosse High School.....	J. B. Watkins.....	Kosse.
Kyle High School.....	R. Jacksone.....	Kyle.
Ladonia Public School.....	R. M. Parker.....	Ladonia.
La Grange High School.....	W. J. Kirk.....	La Grange.
Lamesa Public School.....	D. C. Ashmore.....	Lamesa.
Lampasas High School.....	G. D. Scott.....	Lampasas.
Laneville High School.....	C. A. Jay.....	Laneville.
La Porte Public School.....	James A. Kelley.....	La Porte.
Laredo High School.....	L. J. Christen.....	Laredo.
Laredo Seminary.....	Miss N. E. Holding.....	Laredo.
Lawrence Public School.....	Hubert C. Lyon.....	Lawrence.
Leander Public School.....	J. A. Hudson.....	Leander.
Ledbetter Public School.....	A. H. Wilcox.....	Ledbetter.
Leesville Public School.....	W. R. Muir.....	Leesville.
Leonard High School.....	A. S. Broadfoot.....	Leonard.
Lewisville Academy.....	Eston W. Smith.....	Lewisville.
Lexington Public School.....	E. Mackintosh.....	Lexington.
Liberty Normal and Business College	H. W. Stevenson.....	Liberty.
Lindale High School.....	S. R. Adams.....	Lindale.
Lipan Public School.....	J. T. Russell.....	Lipan.
Livingston High School.....	E. P. Gaines.....	Livingston.
Llano High School.....	J. G. Toland.....	Llano.
Lockhart High School.....	J. F. Johnson.....	Lockhart.
Lockney Public School.....	J. C. McKelvy.....	Lockney.
Lometa Public School.....	J. Weir.....	Lometa.
Lone Oak High School.....	J. C. McElhannon.....	Lone Oak.
Lott Public School.....	W. F. Goode.....	Lott.
Louise Public School.....	L. O. Leathers.....	Louise.
Lubbock Public School.....	E. R. Haynes.....	Lubbock.
Lufkin High School.....	H. B. Stegall.....	Lufkin.
Luling High School.....	B. F. Gregory.....	Luling.
McGregor High School.....	H. P. Walker.....	McGregor.
McKinney High School.....	J. H. Hill.....	McKinney.

Name.	Superintendent.	Location.
Madison Academy.....	T. J. Payne.....	Madisonville.
Manor Public School.....	W. T. Pollard.....	Manor.
Mansfield High School.....	R. W. Fowler.....	Mansfield.
Marfa High School.....	H. B. Griffin.....	Marfa.
Marlin High School.....	W. F. Doughty.....	Marlin.
Marshall High School.....	W. H. Attebery.....	Marshall.
Marshall Training School.....	N. J. Marshall.....	San Antonio.
Mart Public School.....	W. E. Patty.....	Mart.
Martindale High School.....	W. H. Butler.....	Martindale.
Mason Public School.....	H. B. Cowles.....	Mason.
Medina High School.....	L. C. Ingram.....	Medina.
Memphis High School.....	T. A. Taggart.....	Memphis.
Menardville High School.....	E. L. Allison.....	Menardville.
Meridian High School.....	H. T. Hall.....	Meridian.
Mesquite High School.....	R. B. Smitherman.....	Mesquite.
Mexia High School.....	E. B. Stover.....	Mexia.
Midland High School.....	W. W. Lackey.....	Midland.
Midlothian High School.....	M. H. Morris.....	Midlothian.
Miles Public School.....	R. N. Wilson.....	Miles.
Milford High School.....	S. E. Green.....	Milford.
Mineola High School.....	B. A. Stafford.....	Mineola.
Mineral Springs Institute.....	W. B. Hargis.....	Garrison.
Mineral Wells Public School.....	E. O. McNew.....	Mineral Wells.
Moody Public School.....	M. R. Nelson.....	Moody.
Montgomery Public School.....	I. J. Payne.....	Montgomery.
Morgan Public School.....	T. S. Benton.....	Morgan.
Morgan's Mill Public School.....	A. C. Johnson.....	Morgan's Mill.
Moscow Public School.....	M. M. Anderson.....	Moscow.
Mount Calm High School.....	A. D. Clark.....	Mount Calm.
Mount Pleasant High School.....	S. E. Watson.....	Mount Pleasant.
Mount Vernon Public School.....	I. A. Coston.....	Mount Vernon.
Munday Public School.....	S. B. Orton.....	Munday.
Muskogee High School.....	E. S. Monroe.....	Muskogee, Okla.
Nacogdoches High School.....	R. F. Davis.....	Nacogdoches.
Naples High School.....	T. B. Blackstone.....	Naples.
Navasota High School.....	W. B. Bissell.....	Navasota.
Nevada High School.....	R. E. Chapman.....	Nevada.
New Boston High School.....	L. P. Lollar.....	New Boston.
New Braunfels Academy.....	B. Holekamp.....	New Braunfels.
Nocona Public School.....	J. D. Bramlette.....	Nocona.
North Fort Worth Public School.....	M. H. Moore.....	N. Fort Worth.
North Texas University School.....	J. J. Morgan.....	Terrell.
Oakwood Public School.....	E. K. Bardon.....	Oakwood.
Oenaville Public School.....	Marc Jenkins.....	Oenaville.
Olney High School.....	H. L. Hearn.....	Olney.
Orange High School.....	J. E. Binkley.....	Orange.
Overton Public School.....	J. F. Boren.....	Overton.
Palacios High School.....	W. C. Gray.....	Palacios.
Palestine High School.....	Walter King.....	Palestine.

Name.	Superintendent.	Location.
Palo Pinto Academy.....	H. T. Beckworth.....	Palo Pinto.
Paris High School.....	J. G. Wooten.....	Paris.
Park Public School.....	L. H. Henry.....	Nash.
Pasadena Public School.....	Miss Ella Wood Hill.....	Pasadena.
Peacock Military College.....	Wesley Peacock.....	San Antonio.
Pearsall Public School.....	S. G. Turner.....	Pearsall.
Pecos City High School.....	D. S. Robbins.....	Pecos City.
Pennington College.....	T. R. Allen.....	Justin.
Pilot Point Public School.....	A. B. Weisner.....	Pilot Point.
Pittsburg High School.....	C. L. Turner.....	Pittsburg.
Plainview High School.....	E. C. Nelson.....	Plainview.
Plano High School.....	C. F. Walker.....	Plano.
Pleasanton Public School.....	Josiah Bixler.....	Pleasanton.
Port Arthur High School.....	J. H. Bright.....	Port Arthur.
Port Lavaca High School.....	J. B. Rogers.....	Port Lavaca.
Proctor Public School.....	O. H. Bennett.....	Proctor.
Purves High School.....	W. G. Sears.....	Purves.
Quanah High School.....	J. W. O'Banion.....	Quanah.
Queen City Public School.....	Drew Porter.....	Queen City.
Quinlan High School.....	J. H. Buchanan.....	Quinlan.
Ranger Public School.....	J. E. Peters.....	Ranger.
Ravenna Public School.....	A. S. Dobbs.....	Ravenna.
Richardson High School.....	A. E. Grugett.....	Richardson.
Richland Grammar School.....	Mrs. E. L. Moncrief.....	Richland.
Richmond High School.....	J. M. Patton.....	Richmond.
Riesel High School.....	W. L. Pendergrass.....	Riesel.
Rising Star Public School.....	W. B. Duke.....	Rising Star.
Robert Lee Public School.....	W. H. Bodenhamer.....	Robert Lee.
Rockdale Public School.....	C. G. Green.....	Rockdale.
Rock Island High School.....	J. C. Young.....	Rock Island.
Rockport Public School.....	R. W. Bennett.....	Rockport.
Rock Springs High School.....	J. H. Kile.....	Rock Springs.
Rosebud Public School.....	B. F. Sisk.....	Rosebud.
Rosenberg High School.....	V. L. Peterson.....	Rosenberg.
Royse City High School.....	G. F. Blackburn.....	Royse City.
Runge High School.....	M. F. Hall.....	Runge.
Rusk Public School.....	E. B. Meyers.....	Rusk.
Saint Jo School.....	A. J. Bunts.....	Saint Jo.
Sam and Will Moore Institute.....	Geo. Baur.....	Moulton.
San Angelo High School.....	Felix E. Smith.....	San Angelo.
San Antonio Academy.....	W. W. Bondurant.....	San Antonio.
San Antonio High School.....	C. J. Lukin.....	San Antonio.
San Augustine High School.....	W. H. Rushing.....	San Augustine.
Sanderson High School.....	J. J. Allen.....	Sanderson.
San Diego High School.....	.....	San Diego.
Sanger High School.....	G. W. Beaty.....	Sanger.
San Marcos High School.....	G. M. Sims.....	San Marcos.
San Saba High School.....	W. H. Emert.....	San Saba.
Santa Anna High School.....	Z. D. Jones.....	Santa Anna.

Name.	Superintendent.	Location.
Scranton High School.....	W. W. Griffing.....	Scranton.
Seguin High School.....	R. E. L. Adams.....	Seguin.
Seymour Public School.....	J. P. Tarrant.....	Seymour
Sherman High School.....	J. C. Pyle.....	Sherman.
Shiner Public School.....	T. J. Ponton.....	Shiner.
Skidmore Public School.....	J. J. Jenkins.....	Skidmore.
Slidell High School.....	W. E. Hutchins.....	Slidell.
Sidney Public School.....	A. L. Duff.....	Sidney.
Smith School.....	Landon F. Smith.....	Pittsburg.
Smithville High School.....	J. N. Bigbee.....	Smithville.
Snyder High School.....	J. E. Smith.....	Snyder.
Sonora High School.....	L. J. Wardlow.....	Sonora.
Stamford High School.....	J. F. Lindsey.....	Stamford.
State Institute for Blind.....	— Gillespie.....	Austin.
State Orphan High School.....	Minnie L. Maffett.....	Corsicana.
Stephenville Public School.....	Henry Sims.....	Stephenville.
Sterling City Public School.....	M. D. Russell.....	Sterling City.
Stratford High School.....	B. H. Taylor.....	Stratford.
Sulphur Springs High School.....	F. V. Garrison.....	Sulphur Springs.
Summer Hill Select School.....	L. G. Summerell.....	Omen.
Sweetwater High School.....	M. B. Johnson.....	Sweetwater.
Talpa Public School.....	W. O. Hines.....	Talpa.
Taylor High School.....	J. F. O'Shea.....	Taylor.
Temple High School.....	J. F. Kimball.....	Temple.
Tenaha Academy.....	D. A. Leak.....	Tenaha.
Terrell High School.....	S. M. N. Marrs.....	Terrell.
Texarkana High School.....	W. Y. Thornbery.....	Texarkana.
Thomas Arnold High School.....	S. J. Jones.....	Salado.
Timpson High School.....	J. B. Ramsey.....	Timpson.
Tivy High School.....	Horace W. Morelock.....	Kerrville.
Tolar High School.....	C. E. Bloss.....	Tolar.
Trinity High School.....	J. W. Lyle.....	Trinity.
Troupe High School.....	A. W. Birdwell.....	Troupe.
Tyler County High School.....	J. S. Stephens.....	Woodville.
Tyler High School.....	W. T. Adams.....	Tyler.
University Military School.....	J. B. Dodson.....	Dallas.
Uvalde High School.....	A. W. Evans.....	Uvalde.
Valley Mills High School.....	A. D. Roach.....	Valley Mills.
Van Alstyne High School.....	W. H. Rushing.....	Van Alstyne.
Velasco High School.....	J. H. DeFee.....	Velasco.
Vernon Public School.....	B. F. Holcomb.....	Vernon.
Victoria High School.....	A. B. Cox.....	Victoria.
Waco High School.....	J. C. Lattimore.....	Waco.
Waelder Public School.....	A. V. Peterson.....	Waelder.
Wallace Public School.....	Mrs. L. Barnhill.....	Wallis Station.
Waring Public School.....	Miss Jessie Woods.....	Waring.
Waxahachie High School.....	W. L. Acker.....	Waxahachie.

Name.	Superintendent.	Location.
Weatherford College Training School.....	F. D. Caveness.....	Weatherford.
Weatherford High School.....	T. W. Stanley.....	Weatherford.
Weimar Institute.....	G. T. McBride.....	Weimar.
West Paris High School.....	J. L. Bracheen.....	Paris.
West High School.....	J. W. Lewis.....	West.
West Texas Military Academy.....	Angus McD. Crawford.....	San Antonio.
White, William L., Public School.....	John W. Poe.....	Lancaster.
Whitesboro High School.....	G. W. Acton.....	Whitesboro.
Whitney Public School.....	J. S. Carroll.....	Whitney.
Wichita Falls High School.....	T. L. Toland.....	Wichita Falls.
Willie Denton College.....	H. P. Warren.....	Joshua.
Wills Point High School.....	P. B. Peterson.....	Wills Point.
Winnsboro High School.....	J. H. Sheppeard.....	Winnsboro.
Wortham High School.....	F. B. St. John.....	Wortham.
Yoakum High School.....	C. A. Peterson.....	Yoakum.
Zephyr High School.....	M. F. Cloys.....	Zephyr.

CATALOGUE OF STUDENTS.

Abbreviations.—Agr., Agriculture; A. E., Architectural Engineering; C. E., Civil Engineering; E. E., Electrical Engineering; M. E., Mechanical Engineering; T. E., Textile Engineering.

SENIORS.

Adams, Rufe Edwin.....	C. E.....	Comanche.
Adickes, Cecil Frederick.....	C. E.....	Huntsville.
Adkisson, William Terrell.....	C. E.....	Jewett.
Arneson, Edwin Percival.....	C. E.....	Fort Worth.
Baker, Louis Amiel.....	E. E.....	Bay City.
Barwis, Isaac Griffith.....	A. E.....	Childress.
Beauregard, Richard Toutant.....	C. E.....	San Antonio.
Bentley, Charles Nelson.....	E. E.....	Plano.
Bing, Bradbury Lee.....	Agr.....	Waller.
Bittle, George Frederick Howard.....	C. E.....	Bryan.
Blackmon, Gulie Hargrow.....	Agr.....	College Station.
Bordon, Le Roy.....	C. E.....	Fort Worth.
Braunig, Victor Henry.....	E. E.....	Snydettville.
Brice, Allen Houston.....	C. E.....	Hallett.
Burt, Frank Otis.....	C. E.....	Brownwood.
Butts, John William.....	E. E.....	Cisco.
Byars, George Emmett.....	C. E.....	Waco.
Carlin, William Joseph.....	M. E.....	Houston.
Christian, Benjamin Humphreys.....	C. E.....	Houston.
Coleman, Marion Mobley.....	Agr.....	Lubbock.
Cozart, Robert Bourland.....	M. E.....	Timpson.
Crockett, Cecil Merion.....	C. E.....	Prosper.
<i>Graduate Jones Academy, McKinney.</i>		
Crouch, Jackson Henry.....	E. E.....	Alvin.
<i>Graduate Sam and Will Moore Institute, Moulton.</i>		
Cunningham, Forrest Herndon.....	E. E.....	Saint Jo.
Dibrell, Zack Hinckley.....	E. E.....	Coleman.
Dickerson, Adolph Frank.....	E. E.....	Cuero.
<i>Graduate Cuero High School.</i>		
Ehlers, Walter James.....	A. E.....	La Grange.
Elliott, Joseph Earle.....	A. E.....	Greenville.
<i>Graduate Greenville High School.</i>		
Ellis, Herbert Eugene.....	E. E.....	Oklahoma City, Okla.
Eudaly, Ernest Rogers.....	Agr.....	Hico.
Eversberg, Otto Louis.....	Agr.....	Brenham.
Gist, Byron.....	Agr.....	Memphis.
<i>Graduate Memphis High School.</i>		
Hooker, Roger M.....	Agr.....	San Antonio.
<i>Graduate San Antonio Academy.</i>		
Hynds, Hugh Grady.....	E. E.....	McKinney.
Ingram, Henry Lee.....	E. E.....	Dallas.
<i>Graduate Waxahachie High School.</i>		
Jahn, Rudolph Stilwell.....	C. E.....	New Braunfels.

John, Joe Robert.....	C. E.....	Coltharp.
Kirschner, Isadore.....	C. E.....	Waco.
Kleuser, Martin Carl.....	A. E.....	Gainesville.
Leggett, Charles William.....	M. E.....	Joplin, Mo.
Le Roy, Leo Francis.....	M. E.....	San Antonio.
<i>Graduate Peacock's School.</i>		
Lillard, Steve A.....	C. E.....	Decatur.
<i>Graduate Decatur High School.</i>		
Lochridge, James Lewis.....	C. E.....	Iowa Park.
Looney, Lawrence Pender.....	Agr.....	Greenville.
McDonald, William Albert.....	E. E.....	Cuero.
<i>Graduate Cuero Public School.</i>		
McIlhenny, James Leslie.....	C. E.....	San Antonio.
<i>Graduate San Antonio Academy.</i>		
McKay, Chester.....	E. E.....	Longview.
McKay, George.....	E. E.....	Longview.
Menke, Charles Henry.....	Agr.....	Hempstead.
Mikeska, Henry J.....	C. E.....	Wesley.
Munson, Thurmond Armour.....	C. E.....	Angleton.
<i>Graduate Angleton High School.</i>		
Newell, Greene.....	E. E.....	Eliasville.
O'Connor, Thomas, Jr.....	E. E.....	Laredo.
Procter, Joseph Harold.....	E. E.....	Houston.
Reading, Robert Sherrard.....	E. E.....	Richmond.
<i>Graduate Richmond High School.</i>		
Rushmore, Nelson Robinson.....	E. E.....	Houston.
Sherrard, Robert Gibson.....	E. E.....	Burnet.
<i>Graduate Burnet High School.</i>		
Sherrill, Owen Wade.....	Agr.....	Kerens.
Shiels, Robert Theophilus.....	E. E.....	Leonard.
<i>Graduate Leonard High School.</i>		
Singletery, John N.....	Agr.....	Kirbyville.
Skeeler, Frank Joseph.....	E. E.....	Orange.
<i>Graduate Orange High School.</i>		
Smith, Edwin Wier.....	C. E.....	Denison.
Stevens, Roy Randolph.....	C. E.....	Clarendon.
Stimson, Ora Edward.....	C. E.....	Houston.
Svasta, Frank Steven.....	E. E.....	Flatonia.
<i>Graduate Flatonia High School.</i>		
Taber, Rock Granite.....	C. E.....	Dallas.
Tharp, Philip.....	C. E.....	Houston.
Thompson, Thomas Edgar.....	C. E.....	Pearsall.
<i>Graduate Pearsall High School.</i>		
Wade, Lloyd.....	Agr.....	Corpus Christi.
Ward, Arland Langdon.....	Agr.....	Houston.
Williams, Roy Scott.....	E. E.....	Fort Worth.
<i>Graduate Del Rio High School.</i>		
Wyche, Tucker Shackelford.....	E. E.....	Hereford.

JUNIORS.

Agnew, Allen Austin.....	T. E.....	Ravenna.
<i>Graduate Ravenna High School.</i>		
Baade, John E.....	A. E.....	Waco.
Barnes, George Wallace.....	Agr.....	Corpus Christi.
<i>Graduate Corpus Christi High School.</i>		
Bechert, Fred John.....	M. E.....	Corpus Christi.
Boyett, Horace.....	C. E.....	Bryan.
Brandt, Otto Frederick.....	E. E.....	San Diego.
<i>Graduate San Diego High School.</i>		
Briscoe, Will Pell.....	C. E.....	Fulshear.
Brown, Ben McCulloch.....	M. E.....	Rockport.
<i>Graduate Rockport High School.</i>		
Brown, Claude.....	E. E.....	Mathis.
Brown, Henry Powell.....	Agr.....	Cuero.
Bryant, William Thoreau.....	Ch. E.....	Hillsboro.
Carey, Richard, Jr.....	E. E.....	Sabine Pass.
Carroll, John Gustave.....	E. E.....	Galveston.
<i>Graduate Ball High School.</i>		
Cavitt, John Sheridan.....	E. E.....	Bryan.
<i>Graduate Allen Academy.</i>		
Christian, James Russell.....	C. E.....	Houston.
Cock, Calvin Earnest.....	C. E.....	San Marcos.
Coghill, Eugene Spencer.....	C. E.....	Rockport.
Coleman, Nathaniel Pope.....	M. E.....	Athens.
Corlett, Ross Harold.....	C. E.....	Henrietta.
Courtney, George Larkin.....	M. E.....	Pettus.
Cox, Henry Taylor.....	E. E.....	Hereford.
Cretcher, Jesse Cabel.....	C. E.....	Milford.
Crum, Jesse Barkley.....	A. E.....	Benton, Ark.
Dallmeyer, Charles Dietrich.....	T. E.....	Brenham.
Davis, Don O.....	Agr.....	McKinney.
<i>Graduate McKinney High School.</i>		
Davis, John Fuller.....	C. E.....	College Station.
Dellis, J. L.....	C. E.....	Abilene.
DeWare, Charles Allen.....	Agr.....	Jefferson.
Dickerson, W. E.....	C. E.....	Cuero.
Dinter, Henry Anton.....	E. E.....	Cuero.
Dodson, Calvin Philips.....	E. E.....	Leonard.
Dorsey, William Lawrence.....	E. E.....	Nacogdoches.
Edgar, W. Thatcher.....	E. E.....	Hamilton.
Eggert, Ernest Gus.....	A. E.....	Cameron.
<i>Graduate Cameron High School.</i>		
Evetts, John McGraw.....	A. E.....	Ennis.
Figb, John Rufus.....	Agr.....	Dallas.
Fischer, Harrison Howard.....	M. E.....	Port Arthur.
<i>Graduate Port Arthur High School.</i>		
Ford, Fred Darrell.....	C. E.....	Bryan.
Forsgard, Charles Henry.....	E. E.....	Waco.
<i>Graduate Waco High School.</i>		
Frazier, Bruce.....	Agr.....	Belton.
Fries, John.....	M. E.....	Houston.

Giesecke, Bertram Ernest..... A. E..... College Station
 Gilbert, Clarence Leslie..... E. E..... Smithville.

Graduate Smithville High School.

Gilson, Maury Barton..... C. E..... Calvert.
 Gohlman, Harry Davis, Jr..... M. E..... Houston.
 Gray, Oscar Henry..... E. E..... San Antonio.
 Gresham, Wilmer Owen..... E. E..... Smithville.
 Grote, Henry Fritz..... Agr..... Mason.
 Hamilton, Louis Armpestead..... Agr..... Bryan.
 Hanna, Parker D..... Agr..... Galveston.
 Helm, Fielding..... Agr..... Clifton.

Graduate Peacock's School.

Henderson, Clifton Morton..... Agr..... Van Alstyne.
 Herblin, Louie..... T. E..... Austin.
 Holcomb, Oliver Cowen..... E. E..... Cisco.
 Itz, Felix..... C. E..... Fredericksburg.
 Jennings, Joseph William..... Agr..... Martindale.
 Johnson, Melville Lockett..... E. E..... Stockdale.
 Johnston, Thomas James..... E. E..... Waco.
 Kavanaugh, Claude..... E. E..... Houston.

Graduate Houston High School.

Kelley, Victor Mauris..... Agr..... Muskogee, Okla.
 Kelly, Harry Joseph..... C. E..... Orange.
 Kincaid, Edgar Ryan..... Agr..... San Antonio.
 Koons, Joseph V..... M. E..... Nada.
 Krauskoph, Edward Max..... C. E..... Fredericksburg.

Graduate Fredericksburg High School.

Lamar, McDuffe Cain..... M. E..... Henderson.
 Langdon, William Farrar..... C. E..... Hutchins.
 Lauderdale, Joe Cyrus..... C. E..... Somerville.
 Lee, Don..... C. E..... San Angelo.
 Louwien, Henry, Jr..... E. E..... Beeville.

Graduate Beeville High School.

McAdams, Edward..... C. E..... Beçias.
 McAnelly, Ernest Eugene..... A. E..... Devine.
 McCraw, Miller..... M. E..... Dallas.
 McGhee, Percy W., Jr..... A. E..... El Paso.
 McMahan, Lewis..... E. E..... Whitney.

Graduate Whitney High School.

McMillan, Luther Burchard..... M. E..... Anchor.
 Maris, Clarence Eugene..... E. E..... Franklin.
 Marks, Sylvan Haase..... T. E..... Groesbeck.
 Martin, Albert Charles..... Agr..... Mason.
 Meek, James Weston..... Agr..... Houston.

Graduate Houston High School.

Metcalf, Thomas Pryse..... Agr..... Pearsall.

Graduate Hutto High School.

Miller, Hugh C., Jr..... C. E..... Brenham.
 Miller, Melvin Jasper..... C. E..... Farmesville.
 Montemayor, Ridecindo R..... Agr..... C. Victoria, Tamaulipas, Mexico.
 Moore, Carlyle Benton..... Agr..... Van Alstyne.

Graduate Van Alstyne High School.

Moore, Walter Scott.....	Agr.....	Brady.
Morris, Charner Colclough.....	Agr.....	Henderson.
<i>Graduate Henderson High School.</i>		
Morton, Oscar Lee.....	M. E.....	Angleton.
Moser, Ernest Frederick.....	Agr.....	Dallas.
Nagle, John Marion.....	C. E.....	Manor.
<i>Graduate Allen Academy.</i>		
Neighbors, Allen Huddleston.....	A. E.....	Shiner.
Netherwood, Joseph Stanley.....	M. E.....	Galveston.
Nored, Robert Venson.....	Agr.....	Fort Worth.
Palmer, Henry Brower.....	C. E.....	Dunn.
Parks, Lee Decatur.....	C. E.....	De Leon.
<i>Graduate De Leon High School.</i>		
Pearce, Rufus Burleson.....	C. E.....	Thornton.
Peter, Lewis Sim.....	E. E.....	San Antonio.
Pickett, Guy.....	M. E.....	Karnes City.
<i>Graduate Karnes City High School.</i>		
Pool, Herbert Marshall.....	C. E.....	Clifton.
Potthast, Adolf Hans.....	C. E.....	Weimar.
Puckett, David Mills.....	C. E.....	Buda.
<i>Graduate Lampasas High School.</i>		
Ray, Sam Hawkins.....	Agr.....	Falfurrias.
Robbins, Asa John.....	M. E.....	Smith's Point.
Robinson, George Wilmer.....	E. E.....	Bryan.
Rudloff, Ernest William.....	E. E.....	New Ulm.
Rudolph, Roy Francis.....	C. E.....	Stratford.
Sanders, Benjamin Toombs.....	C. E.....	Nacogdoches.
<i>Graduate Nacogdoches High School.</i>		
Sandford, Charles Edwin.....	C. E.....	Shiner.
Schroeder, Edwin Alfred.....	A. E.....	Bracken.
Schwab, Leon Charles.....	M. E.....	Cuero.
Scott, W. E.....	Agr.....	Texarkana, Ark.
Shaw, James Bartholomew.....	E. E.....	San Diego.
Sims, Alvin Vemon.....	T. E.....	Beeville.
<i>Graduate Beeville High School.</i>		
Snearly, Charles Le Roy.....	E. E.....	Henrietta.
<i>Graduate Henrietta High School.</i>		
Spence, Eugene Vierling.....	C. E.....	San Diego.
Spencer, William Wofford.....	M. E.....	Athens.
Summers, Egil.....	C. E.....	San Angelo.
Taylor, Mount.....	E. E.....	Mount Vernon.
Terry, Laban Henry.....	Ch. E.....	Mesquite.
<i>Graduate Mesquite High School.</i>		
Thalman, Charles Herbert, Jr.....	M. E.....	Bandera.
Thanheiser, Leo Otto.....	E. E.....	Sealy.
Thomas, Julian Baldwin.....	M. E.....	Greenville.
Thomas, Hugh Wesley.....	C. E.....	Dallas.
Todd, Douglas Hector Baxter.....	E. E.....	Plainview.
Trickey, William Walter.....	C. E.....	Sanger.
<i>Graduate Sanger High School.</i>		
Trigg, Kleber Miller.....	Agr.....	Bastrop.
Walker, Herbert W.....	C. E.....	Galveston.
<i>Graduate Ball High School.</i>		

Walker, Rex Robert.....	E. E.....	Trinity.
Welborn, George M.....	E. E.....	Palestine.
Whipkey, Walter Well.....	A. E.....	Colorado.
<i>Graduate West High School.</i>		
Williams, Ralph Blanton.....	M. E.....	Leesville.
<i>Graduate Leesville High School.</i>		
Williams, Tom Samuel, Jr.....	M. E.....	Cuero.
Williamson, Howard Hood.....	Agr.....	Bedias.
Williford, Carl Lex.....	M. E.....	Waco.
Wilson, Claude.....	E. E.....	Florence.
<i>Graduate Florence High School.</i>		
Wood, Edward Greenleaf.....	C. E.....	Enid, Okla.
Woods, Allan.....	C. E.....	Corsicana.
Woods, Hoy A.....	C. E.....	Newton.
Wright, Fisk.....	E. E.....	Waco.
<i>Graduate Waco High School.</i>		

SOPHOMORES.

Adams, Quinlan.....	A. E.....	Bryan.
Allard, Ira Lennis.....	A. E.....	Cleburne.
Allen, Henry.....	C. E.....	Batesville.
Allen, William Eugene.....	E. E.....	Kosse.
Altgelt, George Adolph.....	Agr.....	San Antonio.
Anderson, Meriwether Lewis.....	E. E.....	Eagle Lake.
Ashford, George William.....	E. E.....	Diboll.
Atwell, Benjamin D., Jr.....	E. E.....	Hutchins.
Atwell, Charles.....	C. E.....	Hutchins.
Baker, Searcy, Jr.....	M. E.....	Houston.
Ball, William Armour.....	E. E.....	San Diego.
Ballard, Edgar Eugene.....	A. E.....	Denton.
<i>Graduate Denton High School.</i>		
Barnitz, Richard B.....	A. E.....	San Antonio.
<i>Graduate San Antonio Academy.</i>		
Barron, Claud Elmo.....	E. E.....	Center.
Bayne, Harvey.....	A. E.....	Crockett.
Bean, Orendorf.....	E. E.....	Kirbyville.
Beringer, George Henry.....	A. E.....	Gonzales.
Block, Jake Albert.....	C. E.....	Houston.
Bower, Walter Olin.....	A. E.....	Stephenville.
<i>Graduate McAlbany Academy.</i>		
Bowers, Harry Toulman.....	E. E.....	Nacogdoches.
Bozeman, Jeff Ray.....	E. E.....	Dayton.
Bransom, George Edward.....	Agr.....	Burleson.
<i>Graduate Burleson High School.</i>		
Brown, Joe Joshua.....	Agr.....	Cherokee.
Brown, John Steen.....	C. E.....	Hye.
Broyles, Gordon.....	E. E.....	Palestine.
Buchanan, John Dixon.....	E. E.....	Bryan.
Buckner, John Franklin.....	C. E.....	Glenfawn.
<i>Graduate Henderson High School.</i>		
Burchard, Sam.....	C. E.....	Gonzales.
Bush, Thomas Todd.....	C. E.....	Bellevue.

Butler, Jesse Vernon.....	C. E.....	Nederland.
Cabaniss, Walter Marcus.....	E. E.....	Garland.
<i>Graduate Garland High School.</i>		
Caldwell, James Robert.....	M. E.....	Blanco.
Callaway, William Henry.....	C. E.....	Charco.
Campbell, Cleo Wilson.....	C. E.....	Holliday.
Carrington, Henry.....	C. E.....	Bay City.
Carroll, Paul Douglass.....	C. E.....	Naples.
<i>Graduate Naples High School.</i>		
Carter, Thomas Jefferson.....	E. E.....	Celeste.
Caruthers, Robert Bruce.....	C. E.....	Coryell City.
<i>Graduate Coryell City High School.</i>		
Cassin, Edward Willis.....	Agr.....	San Antonio.
Chaney, Leonard Press.....	E. E.....	Beaumont.
<i>Graduate Beaumont High School.</i>		
Christen, Joseph Charles.....	E. E.....	Laredo.
<i>Graduate Laredo High School.</i>		
Church, Warren George.....	E. E.....	Farmersville.
<i>Graduate Farmersville High School.</i>		
Clark, Roy Clayton.....	E. E.....	Galveston.
Clark, Samuel Welch.....	E. E.....	Dallas.
Cocke, Joseph James, Jr.....	C. E.....	Brownsville.
Collins, Allan Buren.....	E. E.....	Mexia.
<i>Graduate Mexia High School.</i>		
Conner, Patrick Thomas.....	Agr.....	Red Oak.
Crawford, Robert B.....	C. E.....	Waco.
<i>Graduate Waco High School.</i>		
Cunningham, Estill Young.....	Agr.....	Corsicana.
Curtin, William Henry.....	M. E.....	Houston.
Darst, Thomas Bradford.....	Agr.....	Richmond.
Davis, Landon Vardo.....	C. E.....	Sulphur Springs.
Devine, Patrick Sarsvield.....	C. E.....	Laredo.
Dickson, John Lafayette.....	C. E.....	Velasco.
<i>Graduate Velasco High School.</i>		
Dickson, Roy Esther.....	Agr.....	Greenville.
<i>Graduate Greenville High School.</i>		
Driess, Franz.....	M. E.....	San Antonio.
Dunlap, Emmett M.....	A. E.....	Mentoni, Ind..
Dwyer, Thomas Joe.....	C. E.....	El Paso.
Egan, John Thomas.....	Agr.....	Denton.
Ehlinger, George Elo.....	Agr.....	La Grange.
Ellis, Athall Barry.....	A. E.....	Edna.
<i>Graduate West Texas Military Academy.</i>		
Ellis, Paul Roscoe.....	E. E.....	El Paso.
<i>Graduate Uvalde High School.</i>		
Ellis, Vergil Oscar.....	A. E.....	Morales.
Eppler, Henry Gilford.....	E. E.....	Cisco.
Fairbain, George Calvin.....	E. E.....	Mineral Wells.
<i>Graduate Mineral Wells High School.</i>		
Farmer, Joseph Sayers.....	Agr.....	Junction.
Fischer, Bush.....	M. E.....	Burton.
Forsyth, James Milen.....	E. E.....	McKinney.

Francis, Andrew Jones.....	Agr.....	College Station.
Fuchs, Benjamin Lewis.....	Agr.....	Round Rock.
Gaines, Carroll Montgomery.....	C. E.....	Bay City.
Gaudian, Will.....	M. E.....	Dallas.
Gee, Cleo Stark.....	E. E.....	Greenville.
<i>Graduate Greenville High School.</i>		
Geren, Preston Murdock.....	A. E.....	Sherman.
<i>Graduate Sherman High School.</i>		
Giesecke, Martin Carl.....	C. E.....	San Antonio.
Gillaspie, Steen.....	E. E.....	San Antonio.
Gist, William Belew.....	C. E.....	Nocona.
Goggan, Walter H.....	A. E.....	Houston.
Goodwin, William Mulvey.....	E. E.....	Beaumont.
Govett, Aldus Victor.....	E. E.....	Seguin.
Gray, Charles G.....	E. E.....	Cisco.
Green, Charles Elmer.....	E. E.....	Penier.
Gribble, James Newton, Jr.....	A. E.....	Bonham.
<i>Graduate Bonham High School.</i>		
Griesenbeck, Clyde Hugo.....	A. E.....	San Antonio.
Griffin, William Richard.....	A. E.....	Bryan.
Haber, Sidney.....	C. E.....	Waco.
Hall, George Graham.....	Agr.....	Houston.
Harrison, Carter Harrell.....	A. E.....	Waco.
Heard, Lawrence P.....	M. E.....	Georgetown.
Heller, Joe Henry.....	Agr.....	Buda.
Hemphill, Grover Hicks.....	E. E.....	Tyler.
<i>Graduate Tyler High School.</i>		
Hinnant, John, Jr.....	C. E.....	Sulphur Springs.
<i>Graduate Sulphur Springs High School.</i>		
Hohn, Caesar.....	Agr.....	Yorktown.
Houston, Samuel S., Jr.....	C. E.....	Memphis.
<i>Graduate Bellevue High School.</i>		
Hudgins, Lewis Allison.....	C. E.....	Houston.
Humphreville, James Blake.....	C. E.....	Houston.
Hunt, Noah Houston.....	E. E.....	Oakwood.
Huth, Theodor George.....	M. E.....	San Antonio.
Imboden, Daniel Carrington.....	Agr.....	Austin.
Jackson, Adolphus Rutherford.....	C. E.....	Houston.
James, Meredith Hadden, Jr.....	Agr.....	Bryan.
<i>Graduate Allen Academy.</i>		
Jenson, William Marion.....	Agr.....	Coolidge.
Johnson, James Alfred.....	C. E.....	Bryan.
<i>Graduate Allen Academy.</i>		
Johnson, Thomas Loraine.....	Agr.....	Lissie.
Johnson, William Byron.....	M. E.....	San Antonio.
Jones, George Mitchell.....	Agr.....	Smithville.
Jones, John Broyles.....	C. E.....	Houston.
<i>Graduate Houston High School.</i>		
Kennedy, Bruce Rankin.....	Agr.....	Greenville.
<i>Graduate Greenville High School.</i>		
Kennedy, Edwin Jay.....	Agr.....	Houston.
Kiley, Allen James.....	E. E.....	Timpson.
<i>Graduate Timpson High School.</i>		

King, Tom.....	E. E.....	Victoria.
Krueger, Carl Clifton.....	C. E.....	San Antonio.
Langston, John Adams.....	Agr.....	Cleburne.
<i>Graduate Cleburne High School.</i>		
Lee, Kenneth Bradley.....	C. E.....	Fort Worth.
Leigh, John Bush.....	C. E.....	Huntsville.
<i>Graduate Huntsville High School.</i>		
Lindley, Thomas Lee Pendleton.....	Agr.....	Wortham.
Luhn, Graham Daniel.....	C. E.....	Houston.
<i>Graduate Barnett High School.</i>		
McBride, Warren Martin, Jr.....	T. E.....	Greenville.
<i>Graduate Greenville High School.</i>		
McClelland, Alton Chisum.....	Agr.....	Thornton.
McCullough, Robert Egar.....	C. E.....	Houston.
McDaniel, Otto.....	E. E.....	Santa Anna.
<i>Graduate Santa Anna High School.</i>		
McDowell, Cincinnatus Hamilton.....	Agr.....	Taft.
McEachern, Carl Angus.....	Agr.....	Austin.
McFarland, James Lee.....	E. E.....	Santa Anna.
<i>Graduate Santa Anna High School.</i>		
McGinnis, Hurly Elliott.....	Agr.....	Terrell.
<i>Graduate Terrell High School.</i>		
McMillan, Frank Ney.....	Agr.....	Calvert.
<i>Graduate Calvert High School.</i>		
McMullan, Theodore Clifford.....	C. E.....	Sulphur Springs.
Mangum, Raleigh Lee.....	E. E.....	Sabine Pass.
Mansfield, Bruce Jefferson.....	A. E.....	Columbus.
<i>Graduate Columbus High School.</i>		
Martin, Seth H.....	Agr.....	Mason.
Martin, Samuel Paul.....	E. E.....	Bryan.
Martin, Roy Lipscomb.....	M. E.....	Fort Worth.
<i>Graduate Fort Worth High School.</i>		
Meece, Brown Lewis.....	E. E.....	Livingston.
<i>Graduate Livingston High School.</i>		
Miller, J. D.....	C. E.....	Comanche.
Miller, William Casey.....	T. E.....	Conroe.
<i>Graduate Conroe High School.</i>		
Mistrot, Gustive Antonio, Jr.....	C. E.....	Houston.
Mizell, John Love.....	E. E.....	Waxahachie.
<i>Graduate Fort Worth High School.</i>		
Montgomery, Fred Lawrence.....	C. E.....	Corsicana.
Morley, Marcus Delafayette.....	M. E.....	Fort Worth.
Moses, Carter Norton.....	E. E.....	Burnet.
Nance, Tom Ellison.....	Agr.....	San Marcos.
<i>Graduate San Marcos High School.</i>		
Nave, Gordon Fletcher.....	M. E.....	Kenedy.
<i>Graduate Shiner High School.</i>		
Newton, John Wharton.....	Ch. E.....	Bryan.
<i>Graduate Allen Academy.</i>		
Newton, Lesser.....	Agr.....	Milano.
Nugent, Clyde Wellington.....	T. E.....	Conroe.
Nussbaum, Julius Harold.....	M. E.....	Mexia.
<i>Graduate Mexia High School.</i>		

Nutter, Frederick William.....	E. E.....	Conroe.
<i>Graduate Conroe High School.</i>		
O'Farrell, James Daugherty.....	M. E.....	Richmond.
Owen, Arthur George.....	C. E.....	Double Bayou.
Partridge, Roscoe Conklin.....	M. E.....	Munday.
Paschall, Joe Carroll.....	E. E.....	Denton.
Pate, Bart C.....	E. E.....	Sulphur Springs.
<i>Graduate Sulphur Springs High School.</i>		
Patterson, John Carr.....	Agr.....	Clarendon.
<i>Graduate Clarendon High School.</i>		
Perrin, Harvey.....	A. E.....	San Antonio.
Quay, John Edward.....	Agr.....	Waco.
<i>Graduate Waco High School.</i>		
Ragsdale, Thomas Milton.....	A. E.....	Muldoon.
Rike, Willard Gay.....	C. E.....	Farmersville.
<i>Graduate Farmersville High School.</i>		
Roberts, Frank Allen.....	C. E.....	Austin.
Robertson, Fonzie Eugene.....	Ch. E.....	Marlin.
Robertson, Henry Stuart.....	E. E.....	Houston.
Robertson, Lake.....	C. E.....	Ballinger.
Rodriguez, Rodrigo B.....	E. E.....	San Luis Potosi, Mexico.
Rogers, Walter Carey.....	E. E.....	Waco.
Romberg, Carl Bernhard.....	M. E.....	Holland.
Rosa, Ralph R.....	Agr.....	Sandy.
von Rosenberg, Hilmer Carl.....	E. E.....	Hallettsville.
<i>Graduate Hallettsville High School.</i>		
von Rosenberg, Herbert John.....	A. E.....	Hallettsville.
Routh, Joseph Thomas.....	Agr.....	Ballinger.
Routh, Samuel Clarence.....	E. E.....	Ballinger.
<i>Graduate Ballinger High School.</i>		
Rowland, Whitney Clifford.....	E. E.....	Tyler.
<i>Graduate Tyler High School.</i>		
Rowntree, Charles.....	E. E.....	Bartlett.
<i>Graduate Bartlett High School.</i>		
Rowntree, Maxwell.....	E. E.....	Bartlett.
<i>Graduate Bartlett High School.</i>		
Rugel, Daniel Frierson.....	Agr.....	Mesquite.
Sanders, Homer Shelton.....	Agr.....	Roxton.
Sargent, Paul Bertram.....	E. E.....	Houston.
Scarborough, John.....	C. E.....	Corsicana.
<i>Graduate Corsicana High School.</i>		
Schaedel, Charles Theodore.....	C. E.....	Bay City.
Scherer, Philip Huffman.....	C. E.....	Anahuac.
Schlom, Charles Hyman.....	C. E.....	Houston.
Scott, Joseph Boyle.....	M. E.....	Clifton.
Sherer, Thomas Rodney.....	Agr.....	Houston.
Sherley, Albert.....	E. E.....	Anna.
<i>Graduate Anna High School.</i>		
Short, Jum Blanton.....	Agr.....	Decatur.
<i>Graduate Decatur High School.</i>		
Shropshire, Otis.....	E. E.....	Plainview
Slaton, Frank William.....	E. E.....	Dallas.
<i>St. Matthews School for Boys.</i>		

Smith, William Jordan Joseph, Jr.....	Agr.....	Dallas.
Smith, William Russell Lewis.....	E. E.....	Dallas.
Smoot, Joseph Henry.....	A. E.....	Colorado.
Smylie, William Robert Lewis.....	E. E.....	Hale Center.
Smyth, Alva Brooks.....	Agr.....	Mart.
Sory, Eugene.....	C. E.....	Mount Enterprise.
Souther, Sim Cruse.....	Agr.....	Rosebud.
Speed, Charles Coulson.....	Agr.....	Kerens.
Starnes, Thomas Jefferson.....	M. E.....	Forney.

Graduate Forney High School.

Stevens, Dillon Tarrant.....	Agr.....	St. Louis, Mo.
Stewart, Joe Edgar.....	C. E.....	Sandy.
Taylor, Arthur Winston.....	C. E.....	San Antonio.
Templeton, Bryce Osborn.....	E. E.....	Cleburne.

Graduate Cleburne High School.

Templeton, Clive.....	Agr.....	Sulphur Springs.
Thaxton, Harold.....	Agr.....	Mason.

Graduate Mason High School.

Thomas, Roy Gause.....	A. E.....	Fort Worth.
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Graduate Cleburne High School.

Tigner, Clarke Hope.....	E. E.....	Juliff.
Townsend, August Emmett.....	T. E.....	Hallettsville.
Underwood, Harris.....	C. E.....	Houston.
Vesmirovsky, Ed.....	T. E.....	Bryan.

Graduate Bryan High School.

Walker, Emmet Hamilton.....	C. E.....	Dumas.
Walker, Phelp White.....	E. E.....	Gonzales.
Wallis, Turner Thomas.....	Agr.....	Cuero.
Walzem, Louis Fred.....	M. E.....	New Braunfels.

Graduate New Braunfels High School.

Washington, William Claude.....	E. E.....	Austin.
Watkins, Homer Bailey.....	C. E.....	Bowie.

Graduate Bowie High School.

Waugh, Townsend Hurlock.....	E. E.....	Galveston.
Wendtland, Willie Armen.....	M. E.....	Shiner.

Graduate Shiner High School.

Wheat, John James.....	C. E.....	Beaumont.
White, Theodore Frierson.....	Agr.....	Lott.
Wickes, Henry Gillette.....	Agr.....	Bryan.

Graduate Allen Academy.

Whitfield, Charles Austin.....	C. E.....	San Angelo.
Wilson, Addison George.....	C. E.....	McKinney.

Graduate McKinney High School.

Young, John Lloyd.....	Agr.....	Blooming Grove.
Younger, Walter Louis.....	Agr.....	Whitesboro.

Graduate Whitesboro High School.

Zapp, H. W. H.....	A. E.....	Fayetteville.
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FRESHMEN.

Abbott, Oscar Bergstrom.....	M. E.....	San Antonio
Albrecht, Henry.....	E. E.....	Houston.
Anderson, John Victor.....	C. E.....	Abilene.

Graduate Abilene High School.

57

Armstong, C. E.....	E. E.....	San Antonio.
Atkinson, George Paxton.....	C. E.....	Pearsall.
Baker, James Lawrence.....	E. E.....	Grand Falls.
Banks, Roy Guy.....	C. E.....	Ukiah, Calif.
Barnett, William Scott, Jr.....	Agr.....	Caldwell.

Graduate Caldwell High School.

Baylor, Robert Emmet.....	C. E.....	Montell.
Beazley, Charles Nugent.....	C. E.....	Grapevine.
Bell, Tyree L., Jr.....	M. E.....	Dallas.
Benavides, Manuel.....	M. E.....	Laredo, Mexico.
Birdsong, Jesse Clyde.....	E. E.....	Jacksboro.
Birk, Ralph Adolphus.....	C. E.....	Iowa Park.

Graduate Iowa Park High School.

Bodet, Norman George.....	E. E.....	San Antonio.
Booker, Winston Byron.....	E. E.....	Independence.
Borchert, William Charles.....	C. E.....	Kyle.
Boswell, Douglas Byron.....	E. E.....	San Antonio.
Bourland, Curtis Christopher.....	Agr.....	Llano.
Box, Virgil Conrad.....	Agr.....	Blueridge.
Brashear, Will Claud, Jr.....	M. E.....	Lufkin.
Brewer, Claude Augustus.....	Agr.....	Ennis.
Brotherson, Philip M.....	C. E.....	Bay City.
Brown, John Aynes.....	Agr.....	Jacksboro.
Brown, James Franklin.....	E. E.....	Fort Worth.
Brown, Norman Arthur.....	Agr.....	Mathis.
Brundrett, H. M.....	E. E.....	Dallas.
Bump, Arthur Le Roy.....	E. E.....	Merrill, Wis.
Burleson, Wade Hampton.....	E. E.....	San Saba.
Bushong, Clinton Andrew.....	Agr.....	Grapevine.
Bywaters, Orville McDonald.....	Ch. E.....	Roxton.
Cade, King Charles.....	C. E.....	Birkville.
Cain, Robert Wofford.....	M. E.....	Athens.
Caldwell, James P.....	Agr.....	Brownwood.
Caldwell, Robert Ezekiel.....	Agr.....	Bryan.
Campbell, Price.....	E. E.....	Weatherford.
Carnes, William Allen.....	E. E.....	Dallas.
Carson, James Estill.....	Agr.....	College Station.
Chambers, Taylor Lee.....	E. E.....	Prosper.

Graduate Prosper Public School.

Chewing, James Walter.....	Ch. E.....	Goodlett.
Clement, C. B.....	E. E.....	Port Lavaca.
Coble, William Guthrie.....	E. E.....	Devine.
Cochran, Granville Morris.....	M. E.....	Dallas.
Coen, James Bennett, Jr.....	Agr.....	Homestead, Pa.
Cole, Thomas Charles.....	M. E.....	Warren, Ariz.
Collins, James Franklin.....	C. E.....	Nederland.
Connellee, Earn Tindall.....	C. E.....	Eastland.
Connolly, Edward William.....	C. E.....	Houston.

Graduate Eastland High School.

Cooper, Samuel Jackson.....	E. E.....	Greenville.
Coreth, Rochett Rudolph.....	Agr.....	New Braunfels.

Graduate New Braunfels High School.

Courtney, O. Key.....	M. E.....	Pettus.
Cousins, Cuyler Steel.....	E. E.....	Marlin.
Cox, Romie Willis.....	Agr.....	Childress.
Cozart, John Marshall.....	Agr.....	Timpson.
Craddock, John Thomas.....	Agr.....	Winnsboro.
<i>Graduate Winnsboro High School.</i>		
Crews, Sim Henry.....	C. E.....	Doucette.
Crockett, William Edwin.....	Agr.....	Prosper.
Cummins, Adam Rankin.....	E. E.....	Burnet.
<i>Graduate Burnet High School.</i>		
Dahlgren, Carlos Ernest.....	E. E.....	San Antonio.
Davis, Frederick Parker.....	A. E.....	Dallas.
<i>Graduate University Military School.</i>		
Deason, Ray Watkins.....	Agr.....	Mount Enterprise.
Dickson, Connor.....	E. E.....	Paris.
<i>Graduate Paris High School.</i>		
Dohoho, William Thompson.....	C. E.....	Utopia.
Doran, Worth R.....	Agr.....	San Saba.
Dorchester, Ernest Dean, Jr.....	E. E.....	Velasco.
<i>Graduate Velasco High School.</i>		
Dowell, Horace Bartlett.....	Agr.....	McKinney.
Duffy, Leslie Hammond.....	E. E.....	Matagorda.
Durst, Leon Harmann.....	C. E.....	Junction.
<i>Graduate Junction High School.</i>		
Eckhardt, William Rudolf, Jr.....	A. E.....	Houston.
Egan, Glen Armstrong.....	Agr.....	Denton.
Ehlinger, Rancier Burt.....	Agr.....	La Grange.
Elmendorff, Henry Percy.....	C. E.....	Temple.
Eversberg, Eugene August.....	Agr.....	Brenham.
Felt, Wright Lafayette.....	E. E.....	Hamilton.
Fenner, Goodrich Robert.....	C. E.....	Beeville.
<i>Graduate Beeville High School.</i>		
Findlater, James Ronald.....	M. E.....	San Angelo.
Fitze, Joseph Rugely.....	E. E.....	Houston.
Fitzpatrick, Brandon.....	M. E.....	Columbus.
<i>Graduate Columbus High School.</i>		
Ford, Robert Desmond.....	A. E.....	Cordell, Okla.
Fountain, Edmund Jones, Jr.....	A. E.....	Bryan.
Fowler, William Brown.....	C. E.....	Dallas.
Frazier, Clarence Randall.....	Agr.....	Wyne, Neb.
French, William Allen, Jr.....	E. E.....	Kaufman.
<i>Graduate Carlisle Military Academy.</i>		
Fries, Louis, Jr.....	E. E.....	Houston.
Gibson, Thomas Jefferson, Jr.....	E. E.....	Winnsboro.
<i>Graduate Winnsboro High School.</i>		
Giles, Harry Andrew.....	E. E.....	Houston.
Gillette, Paul Clifford.....	C. E.....	Houston.
Gonzales, Jose de la Merced, Jr.....	E. E.....	Victoria Temks, Mexico.
Gordon, Le Roy Francis.....	T. E.....	Lynn, Mass.
Grove, Frank Rlybon.....	E. E.....	Aguas Calientes, Mex.
Haddon, Paxton Thomas.....	C. E.....	Houston.
Hale, John Davis.....	E. E.....	Anson.

Hanway, James Padgitte.....	M. E.....	Tyler.
Hardwick, Guy Mitchell.....	T. E.....	Memphis.
<i>Graduate Memphis High School.</i>		
Harper, Alfred Oliver.....	C. E.....	Mexia.
Harris, Jefferson Davis.....	C. E.....	Mathis.
Harris, Robert Lee.....	Agr.....	Comanche.
Harris, William Rucker.....	M. E.....	Dallas.
Harrison, Erwin William, Jr.....	Agr.....	Greenville.
Harrison, Joe Lasater.....	Agr.....	Greenville.
Hart, Melledge Alfonza, Jr.....	Agr.....	New Boston.
<i>Graduate New Boston High School.</i>		
Harvey, Amherst Burris.....	Agr.....	McDade.
Hawkins, Marshall Davis.....	Agr.....	Tehuacana.
Hays, Forest Park.....	E. E.....	Smithville.
<i>Graduate Smithville High School.</i>		
Hefner, William Jesse.....	E. E.....	Cuero.
Hill, John Rutledge.....	C. E.....	Wills Point.
Hill, William Louis.....	Agr.....	Albany.
Hinds, William Watterson.....	E. E.....	Bullard.
Holland, Charlie Jenkins.....	E. E.....	Brownwood.
Holliday, Thomas Cromwell.....	M. E.....	Austin.
Holmes, Columbus Marian.....	E. E.....	Seguin.
Hord, Homer Dave.....	E. E.....	Sweetwater.
Jackson, John Curtis.....	E. E.....	Crystal City.
Jackson, William Halbert.....	C. E.....	Graham.
Jennings, Weyman Clarence.....	Agr.....	Martindale.
Jesson, John Christen.....	Agr.....	Coolidge.
Jobson, Harvey Houston.....	Agr.....	Mesquite.
Johnston, Lemuel Monroe.....	E. E.....	Merkel.
Jones, James Beaty.....	M. E.....	Athens.
<i>Graduate Athens High School.</i>		
Jones, Louis Calvin.....	E. E.....	Grandview.
Josserand, Lewis Peter.....	C. E.....	Groveton.
<i>Graduate Groveton High School.</i>		
Keller, Jules.....	E. E.....	Houston.
<i>Graduate Houston High School.</i>		
Kercheville, Gus Clyde.....	A. E.....	Devine.
<i>Graduate Devine High School.</i>		
Knolle, Roger Edmond.....	Agr.....	Industry.
Knolle, Waldo Austin.....	Agr.....	Industry.
Koinm, Charles Herman.....	E. E.....	Aldine.
Koons, Archer.....	Agr.....	Nada.
Kreage, Alfred C. A.....	E. E.....	Yorktown.
Kuykendall, Pere Moran.....	C. E.....	Moody.
<i>Graduate Moody High School.</i>		
Lacy, George Harry.....	C. E.....	Marble Falls.
Lammers, Edwin S., Jr.....	E. E.....	Dallas.
Lane, Grady J.....	C. E.....	Valley Mills.
Langdon, Young Mitchell.....	Agr.....	Hutchins.
Langford, Ernest.....	C. E.....	Bertram.
Lawson, Willis Walker.....	A. E.....	Houston.

Lee, George Terry.....	A. E.....	Dallas.
Leffland, Kai John.....	A. E.....	Victoria.
Lenert, August Albert.....	M. E.....	La Grange.
<i>Graduate La Grange High School.</i>		
Lenoir, James Roy.....	M. E.....	Groesbeck.
Levy, Richard Mar.....	C. E.....	Longview.
<i>Graduate Longview High School.</i>		
Lidiak, Joseph Paul.....	M. E.....	Muldoon.
<i>Graduate La Grange High School.</i>		
Lienhard, Leon Victor.....	C. E.....	Cuero.
Lockridge, Charles Frank.....	Agr.....	Iowa Park.
Lodal, Martin Gorman.....	Agr.....	Gordon.
Logan, Jefferson.....	M. E.....	Georgetown.
Lott, James Guy.....	C. E.....	Beeville.
<i>Graduate Beeville High School.</i>		
Lown, Franklin David.....	Agr.....	Thornton.
Lumpkin, Elbert B.....	E. E.....	Mart.
Lumpkin, Elmer Robert.....	E. E.....	Mart.
Lutrick, John Adams.....	Agr.....	Strip.
McAnelly, Eldo Alwyn.....	Agr.....	Devine.
<i>Graduate Devine High School.</i>		
McCrosky, James Harrison.....	Agr.....	Bay City.
McDaniel, J. M., Jr.....	M. E.....	Hillsboro.
McDonald, James Milton.....	E. E.....	Ozona.
McDowell, J. T.....	C. E.....	Athens.
McNeill, Herndon Lawrence.....	E. E.....	Orange.
McQuigg, Robert Jerome.....	E. E.....	Denton.
Martin, William.....	E. E.....	Columbia, S. C.
Martin, William Leslie.....	M. E.....	Bryan.
May, Lee.....	E. E.....	Ennis.
Maynard, William Edward, Jr.....	Agr.....	Bastrop.
Menke, Edgar Paul.....	Agr.....	Hempstead.
Miller, Arthur Charles.....	Agr.....	New Ulm.
Miller, Albert Martin.....	M. E.....	Lake Charles, La.
Miller, Richard Sandford.....	Agr.....	San Saba.
Miller, Robert H.....	E. E.....	Ben Franklin.
Mills, Eben Hulbert.....	E. E.....	San Antonio.
Monnig, George William.....	C. E.....	Fort Worth.
Montgomery, Otis.....	Agr.....	Matagorda.
Moore, Hardy Lafayette.....	E. E.....	Denton.
Moore, Meagher.....	M. E.....	Cameron.
Morris, Conrad Patrick.....	T. E.....	Walnut Springs.
Mowdy, Charles William.....	E. E.....	Cameron.
Murphy, Daniel Newton.....	A. E.....	San Antonio.
Murphy, John Boland.....	C. E.....	Dallas.
Nethery, Morris Johnson.....	A. E.....	Junction.
Nicholson, Robert Marcelino.....	E. E.....	Houston.
Nolte, Carl Albert.....	E. E.....	Matagorda.
O'Brien, Jack.....	E. E.....	Galveston.
O'Connor, Daniel.....	Agr.....	Laredo.
Oliver, Clarence.....	Agr.....	Lampasas.
<i>Graduate Lampasas High School.</i>		

Olson, John.....	C. E.....	Galveston.
Orth, William Alva.....	A. E.....	Yoakum.
Parker, Earl.....	E. E.....	Carthage.
Parsons, Benjamin Gillespie.....	C. E.....	Houston.
Paul, Raymond Charles.....	E. E.....	Galveston.
Paulsen, Andrew Paul.....	Agr.....	Port Lavaca.
Peeples, Austin Barnett.....	Agr.....	La Grange.
<i>Graduate La Grange High School.</i>		
Pendleton, John Robert.....	M. E.....	Stratford.
<i>Graduate Stratford High School.</i>		
Perkins, Samuel Joseph.....	T. E.....	Nacogdoches.
Pfeuffer, Frederick Randolph.....	Agr.....	New Braunfels.
<i>Graduate New Braunfels High School.</i>		
Phillips, Clarence Le Roy.....	A. E.....	Marshall.
Phillips, Frank Robert.....	E. E.....	Perry.
Picton, John Hynes.....	M. E.....	Rockport.
<i>Graduate Rockport High School.</i>		
Potthast, Otto James.....	Agr.....	Weimar.
<i>Graduate Weimar Institute.</i>		
Price, Frank M.....	E. E.....	Palestine.
Pugh, Marvin Sylvester.....	C. E.....	Ben Arnold.
Range, Roy Ralph.....	Agr.....	Mesquite.
<i>Graduate Mesquite High School.</i>		
Rees, Charles Jacob.....	M. E.....	Center Point.
Regenbrecht, Albert, Jr.....	E. E.....	Peters.
Rice, John D.....	C. E.....	Hillsboro.
Richards, Harold.....	C. E.....	Round Rock.
Roberts, Joseph Henry.....	C. E.....	Galveston.
Roberts, William Cleveland.....	Agr.....	Comanche.
Robinett, Wiley George.....	C. E.....	Huntsville.
Rock, Thomas Carrol.....	Agr.....	Woodville.
Rockwood, Robert Obenchain.....	E. E.....	Wharton.
Rogers, Asa Edward.....	A. E.....	Kyle.
Rollins, Joseph Guy.....	C. E.....	Merit.
Rollins, Millard Elisha.....	M. E.....	Merit.
Runge, James Forest.....	Agr.....	Galveston.
Rutland, Carl James.....	E. E.....	Commerce.
Sanders, James Edgar Claire.....	C. E.....	Bryan.
Sansing, Julius.....	E. E.....	Blossom.
<i>Graduate Paris High School.</i>		
Sayers, Albert Fawcett.....	C. E.....	Houston.
Schaefer, Seby Eugene.....	M. E.....	Waco.
Schmitz, John Franz.....	E. E.....	Denton.
Scroeter, Richard Ralph.....	C. E.....	Double Horn.
Scofield, James Arthur.....	Agr.....	Hillsboro.
Scott, Floyd Logan.....	M. E.....	Hillsboro.
Scott, James Clarence.....	M. E.....	Texarkana.
Scott, Marshall Northcott.....	Agr.....	Texarkana.
Seiders, Henry Bell.....	C. E.....	Taylor.
Sessions, James Rogers.....	C. E.....	Mexia.
Seymour, James Dunn.....	E. E.....	Columbus.
Shiels, Alexander Young.....	E. E.....	Dallas.

Shiller, Henry Hinek.....	T. E.....	Victoria.
Simmons, Fred Francis.....	Agr.....	Sonora.
Simmons, George.....	E. E.....	Comanche.
Singleton, Thomas Rufus.....	Agr.....	Kirbyville.
Smith, John Randolph.....	C. E.....	Columbia.
Smith, William Cody.....	Agr.....	Post Oak.
Smith, William Wiley.....	C. E.....	McKinney.

Graduate McKinney High School.

Smythe, Cyrus Field.....	E. E.....	Thornton.
Sonnen, John Herman.....	E. E.....	Houston.
Soule, Horace.....	Agr.....	Houston.
Spence, Thomas Reese.....	A. E.....	College Station.
Spencer, Thomas Carroll.....	M. E.....	Athens.
Spooner, Miller Sayers.....	E. E.....	Gonzales.
Staben, Edwin Oscar.....	Ch. E.....	Laredo.
Steele, Wallace.....	Agr.....	Weatherford.
Stelzig, Elo Henry.....	M. E.....	Fayetteville.
Stephens, Frank Agnew.....	M. E.....	Palacios.
Stevenson, Hugh Wagner, Jr.....	C. E.....	Liberty.
Stewart, James Kenneth.....	C. E.....	Fort Davis.
Stone, Hugh Bailey.....	E. E.....	Houston.
Stone, James Milton.....	Agr.....	Houston.
Swenson, Morris.....	Agr.....	Waco.
Taylor, Albion Beirne.....	Agr.....	Burnet.
Terry, Franklin Clive.....	E. E.....	Grundyville.
Thomson, Alexander Spotswood.....	E. E.....	Lockhart.
Thomson, Jasper McDonald.....	E. E.....	Florence.

Graduate Florence High School.

Tigner, Joseph Bingham.....	T. E.....	House.
Tigner, William Nolan, Jr.....	E. E.....	Juliff.
Tolbert, Weimer Sid.....	Agr.....	Miami.
Torrence, William Clifton.....	M. E.....	Waco.
Wade, John Wallis.....	M. E.....	Corpus Christi.
Walker, Daniel Wiggins.....	Agr.....	Rosedale.
Waters, Jerome Jackson, Jr.....	M. E.....	Aguascalientes Aqua, Mex.
Weinert, Herbert George Harry.....	Agr.....	Geronimo.
Westmoreland, John Wright.....	C. E.....	Eagle Lake.

Graduate Eagle Lake High School.

White, Charles Samuel.....	Agr.....	Skidmore.
White, John Parker.....	E. E.....	Lott.
Whiteside, Blount.....	E. E.....	Lott.
Williams, Wyvel Thomas.....	E. E.....	Moody.

Graduate Moody High School.

Wilson, Arthur William.....	C. E.....	Junction.
Wilson, Raymond Alfred.....	M. E.....	Eastland.
Wirtz, Louis Milton, Jr.....	A. E.....	Columbus.

Graduate Columbus High School.

Wolff, Reynold Edward.....	Agr.....	Marlin.
Wood, Jackson Broadus.....	C. E.....	Enid, Okla.
Woods, Michael Leonard.....	E. E.....	Fort Worth.
Woolley, Richard Presnoll.....	M. E.....	San Antonio.
Woolford, Brooks Ross.....	E. E.....	Houston.

Wortham, Rodney Kelley.....	E. E.....	Galveston.
Yarbrough, Jesse Gray, Jr.....	C. E.....	Jefferson.
Young, Marvin Hooper.....	E. E.....	Montgomery.
Young, Wesley Barbee.....	Agr.....	Georgetown.

SUB-FRESHMEN.

Ash, Richard Tislo.....	Athens.
Beaver, Ambrose Melborn.....	Georgetown.
Brown, George Benjamin.....	Stilson.
Buchanan, Robert Edgar.....	Bryan.
Bullington, Romer.....	Wichita Falls.
Closner, John James.....	Chapin.
Crabb, William Payne.....	Leonard.
Crothers, William French.....	Brady.
Daniels, Victor Van, Jr.....	Houston.
Janes, Harold Davidson.....	Baumont.
Keeling, John Edward.....	Timpson.
Klug, Theodore.....	Dearborn.
Knolle, Miles.....	Industry.
Lacek, William Frank.....	Dallas.
Lett, James Edward, Jr.....	Dallas.
McNeel, S. L.....	Waco.
Mills, William Henry.....	Kansas City, Mo.
Milner, Robert Teague.....	College Station.
Morse, George Edward.....	Houston.
Ness, Cornelius Lee.....	College Station.
Scheske, Fred.....	Gonzales.
Schiller, William.....	Burlington.
Schmidt, Frederick Harry.....	Kingsbury.
Scott, Verne.....	El Paso.
Stimson, Arthur Carl.....	Houston.
Struck, Henry C. A.....	Dallas.
Suber, Lawrence Sullivan Ross.....	College Station.
Thomson, Theodore Herman.....	College Station.
Treadwell, Roy Stephen.....	Burk.
Weil, Dudley Adolph.....	Houston.
Whiteside, Horace Lafayette.....	Lafayette.
Wolters, Wallace.....	Schulenburg.

SPECIAL.

Armstrong, Edward Alvin.....	Dublin.
Meyer, Otto.....	Comfort.

TWO-YEAR COURSE IN AGRICULTURE.

Second Year.

Abbey, Walter Edwin.....	League City.
Brookshire, Charles R.....	Granger.
Caldwell, John Elisha.....	Brownwood.
Eppright, John Thomas.....	Manor.
<i>Graduate Manor High School.</i>	
Fisher, Roy Kenner.....	Galveston.

Laake, Ernest William.....	New Ulm.
Ladd, Henry Hoxey.....	Austin.
Lander, Oscar M.....	Victoria.
Milner, Yancey Arnold.....	College Station.
Pace, William Dee.....	Grandview.
Thompson, Robert Roy.....	Beeville.
Wilson, Paul R.....	Liberty Hill.

First Year.

Aguilar, Elvy.....	Alajuela, Costa Rica.
Akin, Thorn Bernard.....	San Angelo.
Ainsworth, Laban Linton.....	Riesel.
Albrecht, William Baker.....	Houston.
Ambrose, Warren D.....	Corsicana.

Graduate Corsicana High School.

Anderson, Robert Benton.....	Olney.
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Graduate Olney High School.

Arledge, John Gary.....	Crockett.
Balenti, Michael R.....	Calumet, Okla.
Barlow, Henry Collins.....	McKinney.

Graduate McKinney High School.

Barnes, Alpheus Milton.....	Corpus Christi.
Barron, Merith Sedbury.....	Covington.
Benson, Horace H.....	Olney.
Blair, John Chilton.....	Laneville.
Brown, Ross Clements.....	Waller.
Brown, William.....	Chattanooga, Tenn.
Davison, Hugh Tankersley.....	Reagan.
Dawson, Douglas Kelly.....	Minden.
Douglass, William Claude.....	Denison.
Evans, Benjamin Alton.....	Minden.
Garrett, Roger Q.....	Thornton.
Gibbens, Ernest.....	Bluff.
Gilchrist, John David.....	Newton.
Harris, Leo Perry.....	Hillsboro.
Helm, Ralph Willis.....	Clifton.

Graduate Clifton High School.

Jamison, Paul Hugus.....	La Veta, Colo.
Japhet, Alfred Kapp.....	Houston.
Lewis, Augustus Bradford.....	Gonzales.
Lewis, Richard Henry.....	Hubbard.
Lowe, Charles Edgar.....	Laneville.
Lutrick, Robert Ashley.....	Strip.
McCown, Willie Harmon.....	Whitney.
McGinnis, Perry Templeton.....	Terrell.
Marschall, William Irigo.....	Llano.
Maverick, James Slayden.....	San Antonio.
Miller, John Grover.....	Corpus Christi.
Myers, Norman Trevor.....	Rowe.
Nickolson, Eugene Hayne.....	Jacksboro.
Nye, Chester Wilkerson.....	Laredo.
Ogburn, William Ewell.....	Brazoria.

Orand, David Howard, Jr.....	Waco.
Pardo, Manuel Diego.....	Brownsville.
Pedigo, Clyde Anderson.....	Pedigo.
Reed, Foster Conwell.....	Azle.
Reinhardt, William Michael.....	McKinney.
Robertson, J. Curtis.....	Frisco.
von Rosenberg, Wesley.....	Austin.
Rucker, Rufus R.....	Mineola.
Shippe, Frank Carroll.....	Murfreesboro, Tenn.
Shofner, Robert Davis.....	Austin.
Sims, Patrick W.....	Waxahachie.
Smith, Jake Kilrain.....	Almadane, La.
Spears, Reginald.....	Fort Worth.
Stahl, Lonie Julius.....	Gonzales.
Stieler, Fred.....	Comfort.
Stiles, James Oran.....	Thrall.
Strahan, John Henderson.....	Alpine.
Swayze, Oscar Lee Putnam.....	Benton, Miss.
Terry, Ray William.....	Copperas Cove.
Thomson, Henry Wilson.....	Lockhart.
Walters, Luther Scenter.....	Winona.
Ward, Carroll E.....	Beaumont.
Ware, Henry Grady.....	Kemp.
Weigle, Reinhard.....	Dantzig, Germany.
Williamson, Mathew Bynum.....	Brazoria.

TWO-YEAR COURSE IN TEXTILE ENGINEERING.

First Year.

Ansley, Ray Sidney.....	Sherman.
Clark, Edward Arthur.....	Thorndale.
Crabb, Paul Carl.....	Leonard.
Curry, William Killbrew.....	Marlin.
Gough, Andrew Bailey.....	McKinney.
Hodges, Lewis Dallas.....	Henrietta.
Jobson, William Alonzo.....	Mesquite.
Laird, Robert Simmons.....	Rockdale.
McKinney, Dan Gannett.....	McKinney.
Miller, Troy Price.....	Henrietta.
Pegg, Sam Milford.....	Von Ormy.
Salyer, Taford.....	Jonah.
Wheeler, John Edwin.....	Stockdale.
White, Sylvester Arvel.....	Mount Vernon
Zapp, Arthur Adolph.....	Fayetteville.

STUDENTS IN THE SUMMER SCHOOL AND IN THE SUMMER NORMAL SCHOOL, 1909.

Adams, Rufe Edwin.....	Comanche.
Adickes, Cecil Frederick.....	Huntsville.
Barron, Bessie.....	Bryan.
Barton, William C.....	Buda.
Barron, Luther.....	Bryan.

Batte, Nelle.....	Bryan.
Bentley, Charles Nelson.....	Plano.
Bethany, Claude M.....	Bryan.
Bosque, Robert.....	Cameron.
Boyett, Horace.....	Bryan.
Bradley, Wilson.....	Bryan.
Brown, Ayres.....	Jacksboro.
Bryan, W. P.....	Bryan.
Bryant, William T.....	Hillsboro.
Bullock, Charles.....	Bryan.
Burleson, Work H.....	San Saba.
Burney, L. L.....	Ranger.
Byars, George Emmett.....	Waco.
Campbell, Carlos.....	San Antonio.
Carlin, William Joseph.....	Houston.
Carson, Nora.....	College Station.
Cavitt, John Sheridan.....	Bryan.
Cely, Hanna Mills.....	Brushy Creek.
Christian, Lucy.....	Bryan.
Coleman, Marion Mobley.....	Lubbock.
Cozart, Robert Bourland.....	Timpson.
Cozart, James Marshall.....	Timpson.
Crum, Jesse Barkley.....	Benton, Ark.
Cruse, A. R.....	College Station.
Dawson, Kate.....	Wellborn.
Dallemeyer, Charles E.....	Burton.
Dawson, P. H.....	Wellborn.
Dibrell, Zack Hinckley.....	Coleman.
Dulaney, J. N.....	Bryan.
Elder, Lena.....	Riesel.
Elliott, Joseph Earl.....	Greenville.
Estill, M.....	Bryan.
Evans, Mary.....	Bryan.
Evetts, John McGraw.....	Ennis.
Francis, Andrew Jackson.....	College Station.
Francis, Bebb.....	College Station.
Fountain, E. J.....	Bryan.
Fountain, Edwin J., Jr.....	Bryan.
Gallion, J. W.....	Calvert.
Giddings, John J.....	Brenham.
Gandy, Pearl.....	Bryan.
Giesecke, Alma C.....	College Station.
Giesecke, Bertram Ernest.....	College Station.
Giesecke, Linda.....	College Station.
Gray, Charles G.....	Cisco.
Gresham, Wilmer Owen.....	Smithville.
Griffin, Lelea.....	Bryan.
Griffin, William Richard.....	Bryan.
Harnden, A. J.....	Yoakum.
Harrison, Carter Harrell.....	Waco.
Hodde, August.....	Brenham.
Holtom, Hattie.....	Benchley.

Holcomb, Oliver Cowen.....	Cisco.
Hohn, Caesar.....	Yorktown.
Japhet, Alfred K.....	Houston.
Janes, Harold.....	Beaver.
John, Joe Robert.....	Lufkin.
Jones, Louis.....	Bryan.
Kennard, Eloise Jane.....	Waco.
Kleuser, Martin Carl.....	Gainesville.
Kunetka, Will.....	Yoakum.
Laake, Edward.....	New Ulm.
Le Roy, Leo Francis.....	San Antonio.
Marcak, C. E.....	Guadalupe.
Mathews, Burnice.....	Bremond.
Melo, V. L.....	.....
Meyer, Clarence J.....	Hempstead.
Mikeska, Henry J.....	Wesley.
Mimms, Zora.....	Bryan.
Milner, Robert T., Jr.....	College Station.
Morris, Charner C.....	Henderson.
McAnelly, Ernest Eugene.....	Devine.
McBride, Martin.....	Greenville.
McClelland, Alton C.....	Thornton.
McConnell, J. P.....	San Saba.
McDowell, J. T.....	Athens.
Nelson, H. A.....	Newark.
Ness, Cornelius.....	College Station.
Newton, Trent.....	Bryan.
Niebuhr, C. E.....	Brenham.
O'Bryan, John.....	Galveston.
Palmer, Henry Brewer.....	Dunn.
Petschelt, Bruno.....	Germany.
Porter, H. Q.....	Fort Worth.
Potthast, Adolph Hans.....	Weimar.
Prideaux, Jean.....	Archer City.
Robertson, Fonzie Eugene.....	Marlin.
Rogers, Asa Edward.....	Kyle.
Rollins, Guy.....	Merit.
Rollins, Millard.....	Merit.
Rushmore, Nelson Robinson.....	Houston.
Salidiner, Joe.....	Bryan.
Schley, Charles Cecil.....	Devine.
Scott, Walter E.....	Texarkana.
Sculley, George C.....	San Antonio.
Singletery, John N.....	Kirby.
Snearley, Charles Le Roy.....	Henrietta.
Spears, Reynold.....	Fort Worth.
Spearman, Clay.....	Denton.
Spence, Reese.....	College Station.
Stimson, Ora Edward.....	Houston.
Stuart, Stella.....	Bryan.
Suber, Lelia.....	College Station.
Summers, Emil.....	San Antonio.

Taylor, C. C.....	Terrell.
Weatherford, Brown.....	Geronimo.
Weinart, Herbert.....	Cleburne.
Welch, Ivy.....	College Station.
Wilcox, Allen B.....	Bryan.
Wilcox, Kate.....	San Marcos.
Wilson, Boon Sloan.....	Hereford.
Wyche, Tucker Shackerford.....	Huntsville.
Wynne, Sallie.....	

SUMMARY.**SENIORS.**

Agriculture (A).....	3
Agriculture (B).....	3
Agriculture (C).....	7
Architectural Engineering.....	4
Chemical Engineering.....	0
Civil Engineering.....	26
Electrical Engineering.....	25
Mechanical Engineering.....	4
Textile Engineering.....	0
	72

JUNIORS.

Agriculture (A).....	6
Agriculture (B).....	2
Agriculture (C).....	19
Architectural Engineering.....	10
Chemical Engineering.....	2
Civil Engineering.....	39
Electrical Engineering.....	33
Mechanical Engineering.....	22
Textile Engineering.....	5
	138

SOPHOMORES.

Agriculture.....	53
Architectural Engineering.....	24
Chemical Engineering.....	2
Civil Engineering.....	56
Electrical Engineering.....	61
Mechanical Engineering.....	21
Textile Engineering.....	5
	222

FRESHMEN.

Agriculture.....	73
Engineering.....	204
	277
SUB-FRESHMEN.....	32

TWO-YEAR COURSE IN AGRICULTURE.

First Year.....	64
Second Year.....	12
	76

TWO-YEAR COURSE IN TEXTILE ENGINEERING.

First Year.....	15
SPECIALS.....	2
Number of students in the Regular Session.....	834
Number of students in the Summer School, 1909.....	118
	<hr/>
	952
Names counted twice.....	56
	<hr/>
Net total.....	896

REGIMENTAL ORGANIZATION, 1909-10.

The Corps is organized as a Regiment of Infantry, of two Battalions, with a Regimental Band; also a Platoon of Field Artillery, termed a "Field Battery."

CAPTAIN ANDREW MOSES, Coast Artillery Corps, U. S. A., Commandant.

Field and Staff.—Lieutenant Colonel, A. L. Ward, Commanding Regiment; Majors, E. P. Arneson and R. G. Sherrard; Captain and Adjutant, E. W. Smith; Captain and Quartermaster, F. H. Cunningham; Regimental Sergeant Major, H. M. Pool; Regimental Quartermaster Sergeant, E. E. McAnelly; Chief Trumpeter, G. W. Robinson; Color Sergeant, W. S. Moore; Trophy Sergeant, K. M. Trigg (elected by Trophy Company); Drum Major, H. C. Miller, Jr.; Battalion Adjutants, O. W. Sherrill, G. F. H. Bittle; Battalion Quartermasters, J. W. Butts, W. A. McDonald; Battalion Sergeants Major, A. A. Agnew, J. B. Crum.

Captains.—C. W. Leggett, T. S. Wyche, E. R. Eudaly, C. M. Crockett, E. W. Smith, L. A. Baker, A. F. Dickerson, H. G. Hynds, R. S. Reading, F. H. Cunningham, B. Gist.

First Lieutenants.—O. W. Sherrill, G. F. H. Bittle, T. A. Munson, N. R. Rushmore, R. T. Shiels, G. Newell, P. Tharp, G. E. Byars, L. Wade, L. P. Looney, R. E. Adams.

Second Lieutenants.—J. W. Butts, W. A. McDonald, H. L. Ingram, I. Kirschner, C. N. Bentley, V. H. Braunig, T. E. Thompson, R. G. Taber, J. H. Procter, R. R. Stevens, R. S. Jahn, R. B. Cozart, B. H. Christian, H. A. Brice, W. J. Carlin, W. T. Adkisson, H. E. Ellis, M. C. Kleuser, L. F. LeRoy, O. L. Eversberg, J. L. Lochridge, F. J. Skeeler, F. O. Burt, J. E. Elliott, J. L. McIlheunny.

First Sergeants.—C. E. Sandford, L. McMahan, F. Wright, W. P. Briscoe, E. E. McAdams, A. V. Sims, A. H. Potthast, W. L. Dorsey; C. H. Menke (Artillery).

Sergeants.—H. J. Kelly, C. Wilson, J. G. Carroll, S. H. Ray, G. E. Ehlinger, J. M. Nagle, J. S. Netherwood, H. D. Gohlman, F. J. Bechert, C. Brown, C. H. Forsgard, J. W. Jennings, M. Taylor, R. B. Pearce, H. P. Brown, O. L. Brandt, L. S. Peter, R. R. Walker, J. S. Cavitt, J. W. Meeck, J. V. Koons, R. R. Rosa, E. V. Spence, M. J. Miller, L. Herblin, G. L. Courtney, L. H. Terry, B. E. Giesecke, H. W. Thomas, C. E. Cock, F. Helm, D. M. Puckett, M. B. Gilson, C. L. Gilbert, F. Itz, B. M. Brown, J. R. Christian, J. F. Davis, J. C. Cretcher, T. T. Bush, J. B. Shaw, J. Fries, G. M. Welborn, S. W. Clark, H. H. Williamson, R. H. Corlett, C. E. Maris, H. B. Palmer, D. O. Davis, D. Lee, H. T. Cox; S. A. Lillard, Jr., C. F. Adickes (Artillery).

Corporals.—P. S. Devine, John Scarborough, C. C. Krueger, S. C. Souther, C. H. Griesenbeck, R. R. Thompson, R. E. McCullough, H. Underwood, C. A. McEachern, C. S. Atwell, J. L. Dickson, H. Carrington, W. D. Pace, J. B. Leigh, T. G. Huth, T. S. King, R. L. Mangum, T. L. Johnson, Q. Adams, J. E. Stewart, F. E. Robertson, J. S. Farmer, R. B. Carruthers, G. H. Beringer, C. Hohn, G. A. Altgelt, L. Robertson, L. Newton, B. J. Mansfield, J. C. Paschall, J. T. Eppright, W. J. J. Smith, P. M. Geren, S. H. Burchard, J. B. Short, R. K. Fisher, J. E. Caldwell, G. Broyles, W. M. Goodwin, M. D. Morley, B. L. Meece, J. T. Egan, E. Y. Cunningham, A. G. Wilson, N. H. Hunt, A. R. Jackson, T. P. Metcalfe, E.

G. Sory, G. F. Nave, F. L. Montgomery, W. A. Wendtland, C. Templeton, W. C. Washington, D. C. Imboden, O. M. Lander, S. P. Martin, H. G. Eppler, J. Hinnant, O. Bean, T. M. Ragsdale, H. H. Fischer, W. R. L. Smith, J. J. Wheat, F. N. McMillan, W. R. Griffin, J. J. Cocke, J. H. Smoot, J. T. Routh, J. D. Miller, W. H. Curtin, J. V. Butler, H. T. Bowers, S. Gillaspie, W. A. Ball, C. E. Dahlgren, P. W. Walker.

ASSIGNMENTS TO ORGANIZATIONS.

Band.—Captain, B. Gist; First Lieutenant, R. E. Adams; Second Lieutenants, H. A. Brice, F. O. Burt; Drum Major, H. C. Miller, Jr.; Sergeants, Carroll, Herblin, B. M. Brown; Corporals, Leigh, F. E. Robertson, Mansfield, Paschall.

Bugle Corps.—Chief Trumpeter, G. W. Robinson; Corporals, Jackson, Dahlgren.

Field Battery, Artillery.—Second Lieutenant, J. L. McIlhenny, Commanding; First Sergeant, C. H. Menke; Sergeants, Lillard, Adickes.

First Battalion.—Major E. P. Arneson, Commanding; First Lieutenant and Battalion Adjutant O. W. Sherrill, Adjutant; Second Lieutenant and Battalion Quartermaster J. W. Butts, Quartermaster; Battalion Sergeant Major A. A. Agnew, Sergeant Major.

Company A.—Captain, Crockett; First Lieutenant, Byars; Second Lieutenants, Thompson, Carlin; First Sergeant, Sandford; Sergeants, C. Wilson, Jennings, Meek, Rosa, Puckett, D. O. Davis; Corporals, Devine, R. R. Thompson, Huth, Farmer, Eppright, A. G. Wilson, Imboden, H. H. Fischer, J. D. Miller.

Company B.—Captain, Wyche; First Lieutenant, Wade; Second Lieutenants, Stevens, LeRoy; First Sergeant, Sims; Sergeants, M. Taylor, Gilson, Gilbert, Fries, Palmer, Cox; Corporals, McCullough, Underwood, Carruthers, W. J. J. Smith, Meece, Washington, W. R. L. Smith, Butler, Curtin.

Company C.—Captain, Leggett; First Lieutenant, Munson; Second Lieutenants, Taber, Procter; First Sergeant, Wright; Sergeants, Ehlinger, Nagle, Pearce, Koons, Shaw, D. Lee, Trigg (Trophy Sergeant); Corporals, McEachern, King, Geren, Caldwell, Hunt, Sory, Lander, Wheat, P. W. Walker.

Company D.—Captain, Dickerson; First Lieutenant, Rushmore; Second Lieutenants, Kirschner, Jahn, Ellis; First Sergeant, Briscoe; Sergeants, Netherwood, H. P. Brown, Spence, M. J. Miller, Bush, Welborn; Corporals, Souther, Atwell, Beringer, Burchard, Broyles, Nave, S. P. Martin, McMillan, Bowers.

Second Battalion.—Major R. G. Sherrard, Commanding; First Lieutenant and Battalion Adjutant G. F. H. Bittle, Adjutant; Second Lieutenant and Battalion Quartermaster W. A. McDonald, Quartermaster; Battalion Sergeant Major J. B. Crum, Sergeant Major.

Company E.—Captain, Eudaly; First Lieutenant, Newell; Second Lieutenants, Bentley, Skeeler, Elliott; First Sergeant, McMahan; Sergeants, Kelly, Gohlman, Brandt, Courtney, Itz, Cretcher; Corporals, Scarborough, Mangum, Hohn, Goodwin, Montgomery, Metcalfe, Hinnant, Gillaspie.

Company F.—Captain, Reading; First Lieutenant, Tharp; Second Lieutenants, Ingram, Cozart, Kleuser; First Sergeant, Dorsey; Sergeants, Ray, C.

Brown, R. R. Walker, Terry, S. W. Clark, Corlett; Corporals, Dickson, T. L. Johnson, Altgelt, Short, Morley, Wendtland, Bean, Griffin.

Company G.—Captain, Hynds; First Lieutenant, Looney; Second Lieutenants, Braunig, Christian, Adkisson; First Sergeant, McAdams; Sergeants, Bechert, Peter, Giesecke, Christian, Williamson, Maris; Corporals, Griesenbeck, Carrington, Q. Adams, Stewart, L. Robertson, R. K. Fisher, Egan, Eppler, J. J. Coker.

Company H.—Captain, Baker; First Lieutenant, Shiels; Second Lieutenants, Eversberg, Lochridge; First Sergeant, Potthast; Sergeants, Forsgard, Cavitt, H. W. Thomas, C. E. Cock, Helm, J. F. Davis; Corporals, Krueger, Pace, Newton, Cunningham, Templeton, Ragsdale, Smoot, Routh, Ball.

Best Drilled Company at Competitive Drill Held During Commencement, Session 1908-1909.—Company C. This company is designated as the "Trophy Company" and carries the Texas flag during the following session. They are authorized to elect a Trophy Sergeant who is the Color Bearer.

DEGREES AND HONORS.**Conferred June, 1909.****DEGREE OF C. E.**

Bean, B.; Crockett, J. B.

DEGREE OF E. E.

Kidd, J. W.; Lear, J. E.

DEGREE OF B. S. (IN AGRICULTURE).

Furneaux, W. H.; Gilbert, W. R.; McDaniel, A. A.; McMillan, S. A.; Miller, R. F.; Minter, C. J.; Robertson, R. L.; Williams, J. S., Jr.

DEGREE OF B. S. (IN ARCHITECTURAL ENGINEERING).

Heldenfels, F. W.; Voelcker, H. R.; Wignall, C. L.

DEGREE OF B. S. (IN CIVIL ENGINEERING).

Buchanan, T. S.; English, M. G.; Giesecke, A. C.; Grady, M. L.; Harris, D. B.; Horton, C. K.; Mitchell, A. F.; Polansky, T.; Ridenour, C. A.; Rife, A. J.; Riley, A. A.; Roseborough, W. D.; Schroeter, A.; Shearer, D. M.; Van Amburgh, T. A.; Wise, W. F., Jr.

DEGREE OF B. S. (IN ELECTRICAL ENGINEERING).

Aldwell, R. E.; Bass, R. O.; Cole, A. T.; Eddins, R. R.; Hutson, M. B.; Lee, H. F.; Munson, H. W.; Telfair, W. H.; Wallis, J. W.; Weinert, M. H.; Whittet, H. E.

DEGREE OF B. S. (IN MECHANICAL ENGINEERING).

Sigel, R. C.

DEGREE OF B. S. (IN TEXTILE ENGINEERING).

Brannin, C. P.

CERTIFICATES IN THE TWO-YEAR COURSE IN AGRICULTURE.

Lanford, L. L.; Marburger, A.; Martin, S.; Nored, R. V.

DISTINGUISHED STUDENTS.

Regular students who have sessional averages less than 80 in no department and who have not more than 25 demerits for the session, are announced as "Distinguished."

Senior Class.

Aldwell, R. E.; Heldenfels, F. W.; Hutson, M. B.; Mitchell, A. F.; Rife, A. J.; Riley, A. A.; Roseborough, W. D.; Whittet, H. E.; Wignall, C. L.

Sophomore Class.

Carroll, J. G.

GRADUATING CLASS.**With Subjects of Theses.****Agricultural Course.**

(For Degree of B. S. in Agriculture.)

W. H. Furneaux, Dallas; C. J. Minter, Fort Worth—Infectious Anemia of the Horse.

W. R. Gilbert, Austin; A. A. McDaniel, Mineola—A Bacteriological Examination of the College Milk Supply.

J. W. McCown, Whitney—Ensilage; Kinds for Texas; Feeding Value.

S. A. McMillan, Anchor—Texas Feeding Stuffs and How to Feed Them.

R. F. Miller, New Ulm—Experiments in Swine Feeding.

R. L. Robertson, Waelder; J. S. Williams, Yazoo City, Miss.—The Management of a 1000-Acre Stock Farm.

Architectural Engineering Course.

(For Degree of B. S. in Architectural Engineering.)

F. W. Heldenfels, Beeville—Design for a Business Building Having a Steel Frame.

H. R. Voelcker, New Braunfels—Comparative Study of the Cost of Fire Proof and Ordinary Construction for Residences.

C. L. Wignall, Port Arthur—Design for a Federal Building.

Civil Engineering Course.

(For Degree of B. S. in Civil Engineering.)

R. T. Beauregard, San Antonio—Design of a Railroad Bridge; Span 169 Feet, 9 Inches.

T. S. Buchanan, Brenham—Design of a Railroad Bridge; Span 183 Feet, 9 Inches.

M. G. English, Austin; D. B. Harris, Houston; T. A. Van Amburgh, Greenville—Triangulation and Stadia Survey of a Portion of the College Campus.

A. C. Giesecke, Marble Falls; A. F. Mitchell, Wooster—Estimates of Cost of Grade Reduction on the Houston & Texas Central Railroad Between College Station and Bryan.

M. L. Grady, Indian Creek—Design of a Railroad Bridge; Span 159 Feet, 3 Inches.

C. K. Horton, Edna; A. J. Rife, Mendoza—Plans and Specifications for a Sewage Disposal Plant at College Station.

T. Polansky, Smithville—Design for a Railroad Bridge; 194 Feet, 3 Inches Span.

C. A. Ridenour, Dexter—Design for a Railroad Bridge; 179 Feet, 6 Inches Span.

W. D. Roseborough, Bryan; A. A. Riley, Dallas—Alternative Plans and Estimates for a 25-Acre and 35-Acre Impounding Reservoir at College Station.

A. Schroeter, Double Horn—Design of a Railroad Bridge; 163 Feet, 3 Inches Span.

D. M. Shearer, Lufkin; W. F. Wise, Jr., Luling—Plans and Estimates for an Emergency Water Supply at College Station by Means of an Impounding Reservoir.

Electrical Engineering Course.

(For Degree of B. S. in Electrical Engineering.)

The graduates of this department are substituting other work for their graduating thesis:

R. E. Aldwell, Sonora; R. O. Bass, Clifton; H. M. Cely, Brushy Creek; A. T. Cole, Beaumont; Z. H. Dibrell, Coleman; R. R. Eddins, Marlin; M. B. Hutson, Houston; H. F. Lee, Dawson; H. W. Munson, Angleton; C. C. Schley, Medina; W. H. Telfair, Ennis; J. W. Wallis, Cuero; M. H. Weinert, Seguin, H. E. Whittet, Anchorage.

Mechanical Engineering Course.

(For Degree of B. S. in Mechanical Engineering.)

R. C. Sigel, Houston—Comparative Efficiencies of Two-Stroke Cycle and Four-Stroke Cycle Gasoline Engines.

Textile Engineering Course.

(For Degree of B. S. in Textile Engineering.)

C. P. Brannin, Dallas—Organization and Labor Cost of a 10,000-Spindle Cotton Mill on No. 30s Yarn.

Post-Graduates.

(For Degree of Civil Engineer.)

B. Bean, Kirbyville—Design of a Railroad Swing Bridge; 244 Feet Span.

J. B. Crockett, Prosper—Design of a 234 Feet Railroad Swing Bridge.

(For Degree of Electrical Engineer.)

J. W. Kidd, College Station; J. E. Lear, College Station—The Theory, Design, Construction and Subsequent Operation of a 90,000 Volt Ampere Three Phase Transformer for the Electrical Laboratory.

(For Degree of Textile Engineer.)

P. D. Casey, Tuscola—Use of Sodium Chloride and Sodium Sulphate in Dyeing Cotton with Direct Colors.

ALUMNI.

(Association Organized 1886.)

ORGANIZATION FOR 1909-1910.

JAS. CRAVENS, '82, Houston.....	President
A. C. LOVE, '99, Beaumont.....	1st Vice-President
WALTER WIPPRECHT, '84, Bryan.....	2nd Vice-President
F. N. HOUSTON, '94, Jennings, La.....	3rd Vice-President
J. R. TABOR, '06, Houston.....	4th Vice-President
C. A. THANHEISER, '01, Houston.....	5th Vice-President
L. D. AMSLER, '89, Hempstead.....	6th Vice-President
A. MITCHELL, '94, College Station.....	Secretary
E. B. CUSHING, '80, Houston.....	Third Member Executive Committee

EXECUTIVE COMMITTEE.

JAS. CRAVENS.

E. B. CUSHING.

A. MITCHELL.

On the following pages are given the names of all graduates of the College, with the courses of study pursued and the degrees obtained; their occupations and residences are also given as far as known. The alumni are requested to aid the Secretary of the Association in making the roll as accurate as possible. Each alumnus should send the Secretary a postal at the opening of the session, giving his address and occupation.

From the opening of the College in 1876 to its reorganization in 1880, the studies were elective, and led to appropriate degrees. Degrees received in this interval are noted in the list of names.

From 1881 to 1887 there were two prescribed courses, the Agricultural and the Mechanical, but no degrees were given.

From 1888 to 1895 there were four prescribed courses, leading to the degrees of Bachelor of Scientific Agriculture (B. S. A.); Bachelor of Civil Engineering (B. C. E.); Bachelor of Scientific Horticulture (B. S. H.); Bachelor of Mechanical Engineering (B. M. E.).

From 1895 to 1901 the four prescribed courses remained the same, but the degree in each was Bachelor of Science (B. S.), the particular course being specified in the diploma.

In 1901 the Horticultural course was merged with the Agricultural, in 1903 the course in Electrical Engineering was added, in 1904 the course in Textile Engineering, in 1905 the course in Architectural Engineering, and in 1908 the course in Chemical Engineering, making seven regular courses leading to the degree of Bachelor of Science (B. S.) in Agriculture, in Architectural Engineering, in Civil Engineering, in Chemical Engineering, in Electrical Engineering, in Mechanical Engineering and in Textile Engineering.

The courses of study are indicated by the use of Roman numerals, as follows:

- I. Agriculture.
- II. Horticulture.
- III. Mechanical or Mechanical Engineering.
- IV. Civil Engineering.
- V. Electrical Engineering.
- VI. Textile Engineering.
- VII. Architectural Engineering.
- VIII. Chemical Engineering.

Names of deceased alumni are marked with an asterisk.

- ABBOTT, E. G., 1894, IV, Captain Coast Artillery, United States Army, Fort Monroe, Va.
 ABBOTT, H. T. 1898, II, Horticulturist, Weatherford.
 ABNEY, CARLTON C., 1905, IV, Bank Clerk, Lampasas.
 ABNEY, G. R., 1906, IV, Civil Engineer, Eagle Lake.
 ABRAHAMS, J. E., 1900, III, Storekeeper, International & Great Northern Railway, Palestine.
 ABRAHAMS, M. L., 1903, III, Salesman, Dean Bros.' Pump Works, Indianapolis, Ind.
 ACKER, L., 1902, IV, Assistant Engineer, H. E. & W. T. Ry., Houston.
 ADAMS, A. S., 1895, IV, Builders' Supply, Dallas.
 ADAMS, F. L., 1892, I, Physician, Stafford.
 ADAMS, LEM, 1908, IV, Instrumentman, Medburg, Idaho.
 ADAMS, T. A., 1908, VI, Mining Engineer, Candelaria Mining Co., San Pedro, Chex., Mexico.
 *ADRIANCE, D., 1886, I, M. S., 1890, Bryan.
 AGUAYO, N. A., 1904, III.
 AHRENBECK, W. T., 1891, III, Minister, Huntsville.
 AKERS, M. E., 1902, IV, Rice Farmer, Richmond.
 ALDWELL, R. E., 1909, V, Surveyor, Sonora.
 ALEXANDER, D. E., 1880, Fort Worth.
 ALEXANDER, R. L., 1902, IV, Assistant Engineer N. P. Ry., Mandon, N. D.
 ALLEN, F., 1906, V, Campbellton.
 ALLEN, L. E., 1881, III, Manager McMurry Lumber Co., Llano.
 ALLEN, W. H., 1888, I, Physician, Marlin.
 ALTGELT, E. J., 1892, IV, Merchant, Alpine.
 ALTGELT, E. S., 1904, IV, Student University of Texas, 2006 Wichita St., Austin.
 AMSLER, L. D., 1889, III, Cashier Farmers' National Bank, Hempstead.
 AMTHOR, A. W., 1895, IV, Civil Engineer for Brownsville Land and Irrigation Co., Brownsville.
 ANDERSON, W. D., 1890, I, Manager Ice Works, Waxahachie.
 ANDREWS, V., 1884, III, Physician, Floydada.
 ARMSTRONG, M. F., 1882, III, Real Estate, Mission.
 ARMSTRONG, J. F., 1906, III, Mining, Guanajuato, Mexico, Box 33.
 ARNOLD, E. C., 1906, III, with Inde Gold Mining Co., Inde, Durango, Mexico.
 ASHTON, JOHN, 1906, I, Ranchman, Linares, N. L., Mexico.
 ASTIN, E. H., 1899, III, Planter, Mumford.
 BACKUS, U. J., 1890, III, General Agent Olmos and Lamar Coal Cos., Eagle Pass.
 BAILEY, C. C., 1892, IV, Cashier, First National Bank, Bartlett.
 BAINES, H., 1906, V, General Electric Co., Lynn, Mass.
 BAKER, J. J., 1879, Merchant, Homer, La.
 BAKER, SEARCY, 1882, III, Assistant Manager South Texas Lumber Co., Houston.
 BALLARD, LUKE L., 1905, I, Stock Farmer, Waco.
 BANKS, A. L., 1879, B. S., 1892, M. S., 1895, Professor of Mathematics, College of Industrial Arts, Denton.
 BARCLAY, R. L., 1898, III, Transfer Business, Temple.

- BARHAM, G. S., 1902, III, Physician, Nacogdoches.
 BARHAM, R. E., 1903, IV, Engineer, Nacogdoches.
 BARNES, R. M., 1898, III, General Merchant, Abilene.
 BARNES, S. E., 1899, I, Dairy Investigation, United States Department of Agriculture,
 R. F. D. No. 2, Knoxville, Tenn.
 BASS, R. O., 1909, V, Electrician, Los Angeles, Cal.
 BATTE, T. R., 1902, IV, Civil Engineer, Rio Bravo Oil Co., Houston.
 BAUER, F., 1904, III, Ginner, Burton.
 BAUM, J. A., 1903, IV, Civil Engineer, Georgia.
 BEALL, V. Z., 1908, IV, Student M. I. of Tech., 263 Newbury, Boston.
 BEAN, B., 1907, IV, C. E., 1909, Draftsman Waddell & Harrington, 1326 E. 9th St.,
 Kansas City, Mo.
 BECKER, ADOLPH, 1905, I, Student, Brenham.
 BEEAMAN, T. R., 1903, IV, Locating Engineer, C., M. & St. P. R. R., 617 White Bldg.,
 Seattle, Wash.
 BEESLEY, T. J., 1908, III, Manager Rockdale Oil Co., Rockdale.
 BEESLEY, W. S., 1892, IV, Salesman, Lancaster.
 BEILHARZ, W. E., 1903, III, Stl. Engineer, S. P. R. R. Co., 1178 Flood Bldg., San
 Francisco, Cal.
 BENJAMIN, J. W., 1905, IV, Draftsman, S. P. Railway, Victoria.
 BERNAY, C. L., 1904, IV, Assistant City Engineer, Houston.
 BEYER, F. C., 1892, III, Ginner, Marion.
 *BIBERSTEIN, F. R., 1882, III.
 BIERING, S. R., 1900, IV, Head Clerk Accounting Department, G., C. & S. F. Railway,
 Galveston.
 BITTLE, P. B., 1896, I, Superintendent City Schools, Henderson.
 BITTLE, T. C., JR., 1900, IV, Mining Engineer, Apartado, 414, Mexico City.
 BITTLE, A. W., 1894, I, Principal High School, Washington, La.
 BIVINS, M., 1907, V, Lumber Dealer, Longview.
 BLACK, M., Minister, Sterling City.
 BLACK, R. S., 1907, IV, Nacoyari, Sonora, Mexico.
 BLAKE, H. H., 1907, IV, Markham.
 BLAKE, T. W., 1904, I, Manager Beaumont Lumber Co., Oklahoma City, Okla.
 *BLAKEMORE, T. E., 1880.
 BLAND, L. F., 1899, I, Medical Student, Memphis, Tenn.
 BLEDSOE, F. F., 1880, Minister, Groesbeck.
 BLOOR, A. W., 1895, I, Attorney, Austin.
 BLOUNT, S. L., 1896, I, U. S. Veterinary Inspector, Bureau of Animal Industry, Depart-
 ment of Agriculture, 913 W. Lenda St., Fort Worth.
 BOCOCK, J. H., 1894, I, Traveling Salesman, Tharton, Va.
 BOETTCHER, R. B., 1900, III, Lumberman, Church Point, La.
 BOGEL, W. W., 1907, V, Marfa.
 BORN, THOMAS C., 1905, I, Bookkeeper, Corpus Christi I. and L. Co., Corpus Christi.
 BOWER, W. E., 1908, V, District Manager Peoples Telephone Co., Coolidge.
 BOYCE, CHARLES W., 1905, I, Farmer, Charco.
 BOYCE, W., JR., 1907, IV, Track Superintendent C. & N. W. R. R. Home Address,
 San Luis Potosi, Mexico.
 BOYKIN, R. E., 1892, III, Teacher.
 BRANDT, R. L., 1906, III, Draftsman, Lufkin Foundry and Machine Co., Lufkin.
 BRANNIN, C. P., 1909, VI, Dallas Cotton Mills, Dallas.
 *BRAUN, P., 1888, San Antonio.
 BRINKMANN, H., 1906, III, 1907, V, 12 Barrett St., Schenectady, N. Y.
 *BRITTINGHAM, W. F., JR., 1890, IV.
 BRETSCHNEIDER, W., 1898, IV, Assistant Engineer, T. & N. O. R. R., Houston.
 BREWER, H. A., 1899, III, Farmer, R. F. D. No. 3, Dale.
 BROGDON, S. T., 1898, III, Minister, Kountze.
 BROWN, C. G., 1906, V, Northern Electric Co., Cleveland, Ohio.
 BROWN, R. M., 1901, IV, in charge of track, Guayaquil & Quito Ry., Box 37, Guayaquil,
 Ecuador, S. A.
 BROWN, T. H., 1879, Claim Agent, T. & N. O. Ry., Houston.
 BROWN, W. H., 1880, IV, Planter, Navasota.

- BRUCE, E. L., 1894, IV, Lawyer, Orange.
- BRUNDRETT, G. T., 1908, V, Dallas Electric Light and Power Co., 320 Howell St., Dallas.
- BRYAN, B. F., 1897, I.
- BRYAN, W. I., 1900, II, Chief Engineer, Flour Mills, Celina.
- BUCHANAN, T. S., 1909, IV, U. S. Drainage Survey, Chappell Hill.
- BUCKMAN, C. D., 1889, IV, Clerk, B. & B. Dept. M., K. & T. R. R. Co., Denison.
- BUFORD, F. L., 1892, IV, Assistant Engineer, G., C. & S. F. Ry., Silsbee.
- BUHLER, C. M., 1897, III, Chief Clerk, Disbursements, S. P. Co., 7532 Hampson St., New Orleans, La.
- BUHLER, C. W., 1892, IV, Chief of Car Department, S. A. & A. P. Ry., San Antonio.
- BUHLER, W. A., 1900, III, Grocer, Victoria.
- BULLARD, T. O., 1899, III, I. & G. N. Shops, Mart.
- BURCK, L. B., 1889, IV, Broker, 142 S. Spring St., Los Angeles, Cal.
- BURFORD, J. M., 1882, III, Physician and Surgeon, Independence.
- BURGHARD, C. L., 1886, III, Cashier, Bank of Goliad.
- BURGOON, C. E., 1895, III, M. E., 1899, Assistant Inspecting Engineer, Interstate Commerce Commission, Washington, D. C.
- BURLESON, R. W., 1895, III, Assistant Cashier, W. M. & Co. Bank, San Saba.
- BURMEISTER, C. A., 1908, I, Real Estate, Christine.
- BURNEY, J. W., 1896, III, Stockman, Kerrville.
- BURNEY, R. L., 1906, IV, Mining Engineer, Los Esperanzos, Coahuila, Mexico.
- BURNS, A. C., 1907, I, Veterinary Student Ohio State University, Columbus, O.
- BURNS, H. E., 1906, IV, Draftsman, Colorado Southern R. R., Beaumont.
- BURNS, J. C., 1904, I, Acting Professor Animal Husbandry, College Station.
- BURRITT, W. P., 1906, III, Ginner, San Diego.
- *CALDWELL, J. C., 1883, III.
- CAMPBELL, D., 1879, Stockman, El Paso.
- CAMPBELL, R. W., 1899, III, President and Bookkeeper, Campbell-Hutcheson Hardware Co., Roff, Okla.
- CARLISLE, E., 1906, I, Assistant Chemist, Experiment Station, College Station.
- CARPENTER, M. M., 1902, I, Student Arizona School of Mines, Tucson, Arizona.
- CARSON, A. B., 1897, IV, Civil Engineer, T. & B. V. R. R., Houston.
- CARSON, J. M., JR., 1886, I, Treasurer A. and M. College, College Station.
- CARSON, J. W., 1886, I, Assistant to the Director of the Experiment Station, College Station.
- CARSON, R. C., 1899, III, Machinist, 1305 N. Robinson St., Cleburne.
- CARTER, J. D., 1900, IV, Civil Engineer, Dallas.
- CARTER, J. W., 1904, IV, Civil Engineer, El Paso.
- CARTER, W. T., JR., 1898, I, Assistant in Bureau of Soils, Washington, D. C.
- CARUTHERS, F., 1885, I, Cashier United States Land Office, Oklahoma, Okla.
- CASEY, P. D., 1908, VI, Waxahachie Cotton Mills, Waxahachie.
- CAVEN, G. P., 1897, I, Clerk, M., K. & T. Ry., 200 San Jacinto St., Dallas.
- CAVITT, W. H., 1897, III, Oil Well Contractor, Box 101, Batson.
- CHAMBERS, M. L., 1879, Real Estate and Loans, Fort Worth.
- CHURCH, MARION S., 1905, I, Attorney, McKinney.
- CLARK, H., 1895, I, Physician, Crowell.
- CLAYTON, W. D., I, M. S., 1897, Farmer, Wakefield, La.
- CLEMENT, T. H., JR., 1900, IV, Engineer, B. & G. N. R. R., Onalaska.
- CLONTS, T. P., 1904, IV, Assistant City Engineer, Muskogee, Okla.
- COBBS, S. A., 1896, IV, Civil Engineer, Muskogee, Okla.
- COBBS, T. D., JR., 1904, IV, Woodward Carriage Co., San Antonio.
- COCHRAN, E. G., 1879, Druggist and Surgeon, Mereta.
- COCHRAN, J., 1904, IV, C. E., 1905, President Jerome Cochran Co., First National Bank Bldg., Houston.
- COHN, S. L., 1897, IV, Advertising Manager, Sherman Oil and Cotton Co., Sherman.
- COLE, A. T., 1909, V, Signal Department, S. P. Ry., Houston.
- COLLINS, J. A., 1907, V, Manager S. W. Tel. Co., Leesville, La.
- CONNOR, A. B., 1904, I, U. S. Department of Agriculture, Chillicothe.
- COOK, E. A., 1892, III, Cleburne.
- CORNELL, A. L., 1908, IV, Teacher, Cisco.

- COTTINGHAM, I. A., 1886, III, Engineer, Maintenance of Way, H. & T. C. Ry., 2502 Fannin St., Houston.
- COTTINGHAM, W. P., 1892, IV, Manager Houston Blue Print Co., Houston.
- *COTTON, H., 1897, IV.
- COUCH, E., 1897, III, Draftsman, Engineering Department City of Dallas, Dallas.
- COULTER, H. T., 1895, II, Physician, Rockdale.
- COULTER, W. J., 1895, III, Merchant, Bryan.
- COULTER, R. E., 1901, III, Foreman Fuel Department, T. & P. Ry. Co., Texarkana.
- COUSINS, R. W., 1899, III, Electrician, General Electric Co., Schenectady, N. Y.
- COX, D. W. S., 1892, IV, Manager Texas Transfer and Warehouse Co., Dallas.
- CRAVENS, J. R., 1882, III, General Agent, Fire Insurance, Houston.
- CROCKETT, J. B., 1908, IV, C. E., 1909, with W. E. Giesecke, Civil Engineer, Gomez, Palacio, Durango, Mexico.
- CROW, W. E., 1898, II, Physician, Dallas.
- CRUSE, JOHN T., 1905, I, Superintendent Feeding Station, Fort Worth.
- CULVER, DAN, 1908, III, Salesman, Lampasas.
- CUNNINGHAM, A., 1879, Railway Postal Clerk, Palacios.
- CUNNINGHAM, P. E., 1907, IV, Junior Engineer, Mississippi River Commission, 404 Vicksburg, Miss.
- CUSHING, D., 1891, III.
- CUSHING, E. B., 1880, III, C. E., 1899, Chief Engineer, S. P., Houston.
- DAHME, A. F., 1904, IV, Engineer, South Park Commission, 6221 Washington Ave., Chicago.
- DALE, I., 1908, IV, Instrumentman, Clarksdale, Miss.
- DALE, J., 1908, III, Farmer, Chillicothe.
- DASHIELL, W. R., 1891, IV, Physician, Surgeon for the Victor Fuel Co., Gray Creek, Colo.
- DAVENPORT, H. S., II, Agriculturist, 2 Crawford St., Palestine
- DAVIS, J. M., 1903, IV, Banker, Forney.
- DAVIS, J. N., 1885, III, Farming and Stockraising, Hico.
- DAWSON, N. A., 1884, III, Lawyer, Austin.
- DAY, T. R., 1902, I, Farmer, Dalhart.
- DAZEY, W. L., 1894, IV, Dentist, Hillsboro.
- DEAN, J. S., 1906, VII, Instructor in Drawing, College Station.
- DIETERT, R. H., 1888, III, Car Foreman, H. & T. C. Ry., 1214 Prairie St., Houston.
- DONALDSON, C. B., 1893, III, Agent I. & G. N. Ry., Madisonville.
- DOWNS, J. R., 1879, Lawyer, Waco.
- DOWNS, P. L., 1879, Cashier First National Bank, Temple.
- DRISDALE, W. E., 1889, II, Physician and Surgeon, Gray Creek, Colo.
- DROSS, P. H., 1902, III, General Manager F. Marty Foundry Co., Meridian, Miss.
- DUDLEY, F. E., 1885, II, Stockman, Coachella, Cal.
- *DUGAN, G. H., 1881.
- DUGGAN, A. P., 1895, IV, Abstractor and Attorney, Denton.
- DUNN, R. B., 1904, III, Farmer, R. F. D. No. 2, Bryan.
- DURST, BRUNO L., 1905, IV, Civil Engineer, Dallas.
- DWYER, W. F., 1899, I, Car Clerk, A., T. & S. F. Ry., Denning, N. M.
- EDDINS, R. R., 1909, V, Electrician, Marlin.
- EDSALL, A. B., 1907, I, Farmer, Spring Creek.
- EDWARDS, J. F., 1883, III.
- EBERSPACHER, F., 1906, IV, U. S. Junior Engineer, Box 404, Vicksburg, Miss.
- EBERSPACHER, G., 1896, III, Machinist, S. P. Ry., Houston.
- EBERSPACHER, R., 1901, III, Supervisor of Signals, H. & T. C. Ry., Houston.
- EHLERS, P., 1907, V, Automatic Electric Co., Chicago, Ill.
- EHLERS, V. M., 1905, IV, Student, Cornell University, Ithaca, N. Y.
- EHLINGER, L., 1906, IV, Draftsman, General Land Office, Austin.
- *ELDRIDGE, H. M., 1897, IV.
- ELLIOTT, F. G., 1906, VI, with Bush & Witherspoon, Cotton Brokers, Waco.
- ELLIS, B. V., 1892, I, Physician, 1601 Boulevard, Houston Heights.
- ELLIS, FORT O., 1894, IV, Merchant, Harrisonburg, La.
- ELLIS, O. L., 1908, V, Telephone Co., Clovis, N. M.
- ELROD, H. E., 1901, III, General Manager Houston Structural Steel Co., Houston.
- ENGLISH, M. G., 1909, IV, M. of W. Department, S. P. R. R. Co., Houston.
- EPFRIGHT, F. G., 1902, III, Machinist, I. & G. N. Shops, San Antonio.

- EPSTEIN, S. G., 1907, IV, H. & T. C. R. R. Co., Ennis.
- ERHARD, E. C., 1903, III, Machinist, I. & G. N. R. R. Co., Palestine.
- EVANS, C. D., 1899, IV, Civil Engineer, L. R. & N. Co., Box 540, Shreveport, La.
- EVANS, C. M., 1908, I, Professor of Agriculture, Lennox College, Hopkinton, Iowa.
- FARMER, A. G., 1895, III, Stockman, Junction.
- FAUST, H., 1900, III, Student, University of Texas, 1900 Whitis Ave., Austin.
- FAUST, W., 1897, IV, Cashier of First National Bank, New Braunfels.
- FEARHAKE, J. D., 1889, IV, Attorney, 5 Nassau St., New York City.
- FEHRENKAMP, E. B., 1901, IV, Bookkeeper, Kenedy.
- FERGUSON, A. M., 1894, II, M. S., 1896, Manager Texas Seed Breeding Farms, Sherman.
- FIELD, H. Y., 1891, I, Stock Breeder, Argyle Avenue, Dallas.
- FINNEY, C. B., 1896, IV, Mining Engineer, Mexico.
- FITZGERALD, A. H., 1895, I, Druggist, Gonzales.
- FITZGERALD, L., 1900, III, Superintendent G. H. L. and W. Co., Gary, Ind.
- FITZHUGH, E. E., 1880, Fire Insurance, Waco.
- FLEMING, C. H., 1908, VI, with Jno. Finnigan Co., Box 902, Fort Worth.
- FLOYD, J. F., 1892, III, Cashier, First National Bank of Tupelo, Okla.
- FLYNT, H. C., 1890, I, Wood and Coal, San Antonio.
- FORT, F. W., 1879, Wholesale Grain, Provident Building, Waco.
- FORDTRAN, F. L., 1887, I, Physician, Kerrville.
- FORSGARD, OSCAR L., 1905, IV, Chief Engineer, A. B. R. R., San Antonio.
- FOWLER, E. G. R., 1894, IV, Lawyer, Palestine.
- FOUNTAIN, S. J., 1901, IV, Architect, 403 Schiller Bldg., Chicago.
- FOUNTAIN, T. D., 1904, IV, Merchant, Dalhart.
- FOUNTAIN, T. L., 1901, IV, Civil Engineer, Houston.
- FOUTREL, G. F., 1898, III, Machinist, 225 S. Pressa St., San Antonio.
- FOY, H. F., JR., 1908, V, Traffic Supervisor, S. W. Tel. Co., Dallas.
- FOY, V. H., 1902, III, I. & G. N. Machine Shops, Palestine.
- FREEMAN, J. H., 1887, III, Insurance Agent, Austin.
- *FULLER, T. A., 1879.
- FURNEAUX, W. H., 1909, I, American Exchange National Bank, Dallas.
- GARBADE, W. T., 1901, I, Demonstrator of Chemistry, University of Texas, Medical Department, Galveston.
- GARNETT, R. M., 1902, IV, Section Foreman, S. P. Ry., Bay City.
- GARZA, C. M., 1905, IV, Brownsville.
- GIESECKE, F. E., 1886, III, M. E., 1890, Professor of Architectural Engineering and Drawing, A. and M. College, College Station.
- GIESECKE, G., 1884, III, Merchant Miller, 228 Washington St., San Antonio.
- GIESECKE, W. E., 1892, III, Civil Engineer and Contractor, Gomez Palacios, P. O. Box 82, Durango, Mexico.
- GIESECKE, A. C., 1909, IV, with W. E. Giesecke, Civil Engineer, Gomez Palacios, Durango, Mexico.
- GILBERT, J., 1894, I, Physician, Austin.
- GILBERT, W. A., 1907, I, Ranchman, Weatherford.
- GILBERT, W. R., 1909, I, Farmer, Austin.
- GILLESPIE, S. E., 1903, III, Draftsman, The Murray Co., Dallas.
- GILMORE, H. C., 1896, III, Electrician, Barden Electric Co., Houston.
- GLASS, R. H., 1904, III, Teacher, Houston Dental College, Houston.
- GLASS, WILL V., 1905, I, Teacher, Franklin.
- GLEASON, B., 1906, V, Westinghouse Electric Co., Pittsburg, Pa.
- GLEASON, H., 1903, IV, Civil Engineer, Cleburne Water, Ice and Lighting Co., Cleburne.
- GLOVER, W. F. H., 1898, I, Planter, R. F. D. No. 1, Mt. Phersonville, S. C.
- GOLDBERG, I. L., 1896, II, Merchant, Jefferson.
- GRADY, M. L., 1909, IV, Civil Engineer for Kirby Lumber Co., Houston.
- GRANAU, H. F., 1907, IV, G., C. & S. F. R. R. Co., Cleburne.
- *GRAVES, C. S., 1882, III.
- GRAVES, D. R., 1903, III, Signal Maintainer, T. & P. Ry., Fort Worth.
- GRAY, J. L., 1884, III, Civil Engineer.
- *GREEN, R. B., 1884, III.
- *GREENWOOD, F. J., 1898, IV.
- GRIFFITHS, T. W., JR., 1900, III, with Griffiths & Co., Lumber Dealers, Dallas.
- GRUENE, E., 1887, III, Piano Dealer, New Braunfels.

- GRUPE, G., 1892, III, Superintendent Steam Plant, College Station.
- *GUGENHEIM, L. Z., JR., 1906, V, E. E., 1907.
- GURLEY, D. R., JR., 1892, Farmer, Waco.
- HACKNEY, J. G., 1906, III, Merchant, Burleson.
- HADEN, J. H., 1879, Farmer and Stockman, R. F. D. No. 2, Barry.
- HALTOM, G. T., 1906, V, S. P. R. R., Houston.
- HANER, E., 1904, IV, Assistant Engineer, Natl. R. R. of Mexico, Monterey, Mexico.
- HANNA, HOWARD E., 1905, I, Traveling Salesman Hughes-Percell Paint Co., Kansas City, Mo.
- HANSCHKE, R., JR., 1890, III, Manager Advertising Department Freie Presse fuer Texas Publishing Co., 225 King William St., San Antonio.
- *HARE, H. C., 1887, III.
- HARE, S. C., 1882, III, Lawyer, 566 S. Travis St., Sherman.
- HARRINGTON, C. B., 1902, I, Physician, Lake Charles, La.
- HARRISON, C. C., 1899, II.
- HARRISON, J. G., 1902, III, Architect, Wilson Building, Dallas.
- *HARRISON, W. A., 1893, II.
- HARRIS, D. B., 1909, IV, Bank Clerk, Houston.
- HAUCK, CHARLES F., 1905, III, Captain Dredge Boat, Galveston.
- HAWKINS, J. W., 1893, I, General Land Office, Austin.
- HEIDELBERG, H. A., 1903, III, Iola Portland Cement Co., Dallas.
- HELDENFELS, C. A., 1903, I, Stockman, Beeville.
- HELDENFELS, F. W., 1909, VII, Lumber Dealer, Beeville.
- HELLER, W. L., 1908, I, Farm Superintendent, Pauls Valley, Okla.
- HENDERSON, H. W., 1891, I, Cotton Buyer, Ladonia.
- HENSEL, F., JR., 1907, I, Nursery Inspector, San Antonio.
- HEREFORD, J. B., 1887, III, General Agent, Fire Insurance, Dallas.
- HERNSTADT, S. J., 1890, IV, Member New York Cotton Exchange, 60 Broadway, N. Y.
- HIGGINS, W. S., 1907, IV, G., C. & S. F. R. R. Co., Beaumont.
- HILDEBRANDT, A. M., 1896, II, M. S., 1898, Minister, Sewanee, Tenn.
- HILL, JOHN E., JR., 1904, III, 1905, V, E. E., 1907, Bell Tel. Co., Waco.
- HILL, M. J., 1907, V, S. W. Tel. Co., Dallas.
- HOFFER, T. B., 1904, IV, Civil Engineer, Texas Company, Houston.
- HOFFMAN, F. C., 1888, III, Jeweler, New Braunfels.
- HOFMAN, R. W., 1906, IV, City Engineer's Office, El Paso.
- HOLCOMB, R. M., 1902, Traveling Freight Agent, S. N. & S. T. Ry., Stephenville.
- HOLLOWAY, T. E., 1908, I, U. S. Department of Agriculture, Box 208, Dallas.
- HOLMAN, J. R., 1895, IV, Chief Engineer, Oregon & Washington R. R., Seattle, Wash.
- HOLZMAN, F. R., 1902, I, Farmer, Quanah.
- HOLZMAN, WALTER R., 1905, I, Veterinary Inspector, B. A. I., 1421 Lake Ave., Fort Worth.
- HOMANN, A. C., 1898, III, Cashier, First State Bank, Rowena.
- HOMEYER, C. W., JR., 1908, IV, Student, M. I. T., Boston, Mass.
- HOOPER, J. J., 1901, I, Professor of Animal Husbandry, Kentucky State College, Lexington, Ky.
- HOPKINS, S. H., 1890, I, Attorney, Gonzales.
- HORN, T. L., 1899, III, Machinist, I. & G. N. Shops, Palestine.
- HORTON, C. K., 1909, IV, Civil Engineer for Horton & Horton, Houston.
- HOUGH, S. A., 1885, III, Lawyer and County Judge, Rock Springs.
- HOUSTON, F. N., 1894, IV, Track Foreman, Jennings, La.
- HOWELL, J. W., 1894, I, President and Manager Oil Mill Co., Bryan.
- HOWELL, R. W., 1896, I, Assistant Cashier, First National Bank, Bryan.
- HOYO, G. A., 1906, I, Superintendent and Agriculturist, Dodson Agricultural High School, Dodson, La.
- HUDGINS, F. D., 1897, IV, General Superintendent Street Construction, 425 City Hall, St. Louis, Mo.
- HULL, B. E., 1904, IV, Civil Engineer, Texas Oil Co., Port Arthur.
- HUTCHINSON, E. W., 1889, IV, Secretary-Treasurer Moore-Cortes Canal Co., Houston.
- HUTCHINSON, O. D., 1893, I, Farmer and Stockman, Chickasha, Okla.
- HUTCHINSON, W. F., 1897, IV, Bank Cashier, Olney.
- HUTSON, A. C., 1900, IV, Engineer, Natl. Bd. Fire Underwriters, New York City.

- HUTSON, H. L., 1896, III, Chief Engineer, A. M. Lockett & Co., Ltd., 533 Barron St., New Orleans, La.
- HUTSON, W. F., 1895, IV, Civil Engineer, El Paso.
- HUTSON, M. B., 1909, V, Engineer, Irrigation Plant, Gaston.
- ISELL, J. M., 1903, IV, Civil Engineering Dept., G., C. & S. F. Ry., Beaumont.
- *JACK, D. M., 1879.
- JACOT, H., 1902, IV, Assistant Engineer, Mexican R. R., Apartado 414, Mexico City.
- JAHN, F. C., 1894, II, Horticulturist, Gonzales.
- JAPHET, G., 1894, III, Wholesale Fruit and Produce, 917 Commerce St., Houston.
- JAPHET, W. E., 1904, IV, Civil Engineer, Concho Eng. Co., San Angelo.
- JOBSON, H. H., 1908, I, U. S. Department of Agriculture, Washington, D. C.
- JOBSON, T. S., 1903, III, Signal Supervisor, G., H. & S. A. Ry., El Paso.
- JONAS, E. C., 1894, IV, Draftsman, Resident Engineer's Office, G., H. & S. A. Ry., 1002 Avenue D, San Antonio.
- JONAS, H. F., 1888, IV, Assistant Bridge Engineer, Sunset Lines, Houston.
- JONES, C. E., 1908, I, Harvey.
- JONES, L. R., 1908, IV, Draftsman, U. S. Engineer's Office, Port Arthur.
- *JONES, W. F., 1889, IV.
- JORDAN, H. P., 1895, IV, Attorney at Law, Suite 68, Provident Building, Waco.
- JOSEY, N. L., 1888, I, Merchant, San Antonio.
- JOUINE, G. P. F., 1907, IV, U. S. Junior Engineer, Box 404, Vicksburg, Miss.
- KAHN, M. S., 1900, II, Physician and Surgeon, Hallettsville.
- KELL, E., 1894, III, Mechanical Engineer, 2221 Columbus St., New Orleans.
- KENDRICK, R. T., 1906, I, Ranchman, Hart.
- KENEDY, O., 1883, III, Attorney at Law and Mayor, Groesbeck.
- KERR, E. W., 1896, III, M. E., 1899, Professor of Mechanical Engineering, Louisiana State University, Baton Rouge, La.
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- KIDD, J. W., E. E., 1909, Associate Professor of Physics, College Station.
- KINSLOE, R. H., 1903, III, Manager Corsicana Manufacturing and Bottling Co., Corsicana.
- KIRKPATRICK, L. R., 1906, III, McKinney.
- KLEINSMITH, M. L., 1901, IV, Superintendent Cpl. Pacific Development Co., Meeker, Col.
- KLOSS, E. L., 1902, III, Machinist, I. & G. N. Shops, San Antonio.
- KLOSS, O. H., 1907, IV, Assistant Cashier, First National Bank, Bellville.
- KNOLLE, A. P., 1888, IV, Physician, Ellinger.
- KNOLLE, B. E., 1884, III, Physician, Industry.
- KNOLLE, E. R., 1887, III, Physician, Wesley.
- KNOLLE, O. J., 1897, I, Physician, Industry.
- KNOLLE, W. H., 1888, IV, Physician and Surgeon, 3941 Canal St., New Orleans, La.
- KOPKE, L. J., 1880, IV, Civil Engineer and Rice Planter, 1068 Liberty St., Beaumont.
- KOWALSKI, B., 1906, IV, Instrumentman, U. S. Boundary Commission, Brownsville.
- KROULIK, HUGO J., 1905, I, Bookkeeper, Taylor.
- KUEHNE, J. F., 1889, II, Manufacturing and Commission Agent, 49 Carpiro, No. 3 D. E., Mexico City.
- KYLE, A. J., 1897, I, Stockman, Pecos.
- KYLE, E. J., 1899, II, Professor of Horticulture, College Station.
- KYLE, H. C., 1896, I, Stock Farmer, Nursery.
- KYLE, J. A., 1890, I, Physician and Surgeon, Binz Building, Houston.
- *KYLE, T. M., 1893, III.
- LANDA, L. M., 1907, V, S. W. Tel. & Tel. Co., Houston.
- LAUDERDALE, J. R., 1908, I, Student I. S. C., Ames, Iowa.
- LAW, F. M., 1895, I, Cashier, Commercial National Bank, Beaumont.
- *LAWLEY, L. P., 1902, I.
- LEAR, J. E., E. E., 1909, Instructor in Electrical Engineering, College Station.
- LEARY, EDGAR M., 1905, IV, Civil Engineering, with Mex. & N. W. R. R. Home Address, Alvin.
- LEE, KNOX, 1908, V, with Fort Worth Light and Power Co., Fort Worth.
- LEE, H. F., 1909, V, Dallas Tel. Co., Dallas.
- LEGGETT, W. W., 1889, IV, Co. "C," 1st Bat. U. S. Engineers, Manila, P. I.
- LEMPERT, L. H., 1907, V, General Electric Co., Lynn, Mass.
- LENERT, L. G., 1906, IV, Instrumentman, T. C. R. R., Waco.
- LENZ, L., 1907, IV, Instrumentman, R. of W. Department S. P. R. R., Box 464, Houston.
- LEWIS, F., 1894, IV, City Engineer, Tahlequah, Okla.

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- LEWIS, L. L., 1893, I, M. S., 1894, Professor of Zoology and Veterinary Science, Oklahoma A. and M. College, Stillwater, Okla.
- LEWIS, M. G., 1899, III, Locomotive Inspector, Schenectady, N. Y.
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- LILLARD, W. W., 1904, IV, Assistant Superintendent Ball-Carden Co., Dallas.
- LILLY, R. C., 1907, IV, U. S. Junior Engineer, Box 404, Vicksburg, Miss.
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- LINDEMAN, JAMES E., 1905, III, Draftsman, Ft. W. & D. C. R. R., Childress.
- LINDNER, M., 1908, III, Comfort.
- LIPSCOMB, R. S., 1882, III, Physician, Grapevine.
- LITTLEJOHN, R. G., 1891, IV, City Assessor and Collector, City Hall, Fort Worth.
- LOCKETT, N., 1903, IV, Engineering Department, F. C. I. M., Lapaz, Bolivia, S. A.
- LOMANITZ, S., 1908, I, Chemist, Houston.
- LOVE, A. C., 1899, IV, Irrigation Engineer, Beaumont Irrigating Co., Beaumont.
- LOVING, J. W., 1906, I, Ranchman, Jacksboro.
- LUCKETT, W. H., 1891, I, Physician and Surgeon, 112 W. 119th St., New York, N. Y.
- *LUCKETT, W. M., 1894, III.
- *LUHRSEN, C. W., 1900, IV.
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- MACKENSEN, L., 1885, III, Farmer, Houston.
- MAEDGEN, C. E., 1904, I, Banker, Troy.
- MANSFIELD, R. H., 1903, IV, Eng. Dept. N. Y. C. & H. R. R., Room 518, G. C. Station, New York.
- MARBACH, A., 1907, IV, Rodman, T. C. R. R. Co., 506 Rusk St., Waco.
- MARBURGER, BERNARD, 1905, IV, Roadmaster, H. & T. C., Ennis.
- MAREK, E. L., 1907, IV, Draftsman, Pleasanton.
- MARKHAM, E. L., 1902, IV, Assistant Engineer, St. L. & S. W. Ry., Pine Bluff, Ark.
- MARTIN, E. L., 1899, IV, Austin.
- MARTIN, H. B., 1895, III, Construction Department, Missouri Pacific Railway, Aurora, Mo.
- *MARTIN, W. C., 1898, II, M. S., 1901.
- MASSENBERG, W. G., 1894, IV, Division Engineer, G., C. & S. F. Ry., Beaumont.
- MATTHEWS, H. F., 1903, IV, Civil Engineer, Gulf Pipe Line Co., Beaumont.
- MAXWELL, J. W., 1904, III, Austin.
- MAXWELL, N. C., 1907, IV, Bookkeeper, Hamilton.
- MAYER, M. F., 1906, VII, Architect, San Antonio.
- MEAD, J., 1897, IV, Resident Engineer, St. L., B. & M. Ry., Bay City.
- MEEK, R. W., 1904, III, Foreman, T. & N. O. Signal Shops, Houston.
- *MERRITT, W. B., 1889, I.
- MERRIWETHER, W. T., 1891, IV, Civil Engineer, Eagle Lake.
- METCALFE, J. D., 1906, IV, Resident Engineer, A. L. R. & E. P. Ry., Wellington.
- MIDDLEBROOK, E. S., 1889, IV, Manager for Lumber Manufacturing Plant, Nona.
- MIDDLEBROOK, R. M., 1891, III, Attorney at Law, Columbus.
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- MILLER, E. A., 1908, I, Instructor in Horticulture, College Station.
- MILLER, R. F., 1909, I, Student Assistant A. and M. College of Iowa, Ames, Iowa.
- MILLER, H. J., 1883, III, Merchant and Planter, Bellville.
- MILLICAN, WAYNE, 1907, I, Stock Farmer, Corsicana.
- MINEAR, SYLVESTER A., 1905, I, Agricultural Extension Department, A. and M. College of Georgia, Athens, Ga.
- MINTER, C. J., 1909, I, Fort Worth.
- MITCHELL, A., 1894, IV, Assistant Professor of Drawing, College Station.
- MITCHELL, W. H., 1893, IV, Druggist, Holland.
- MITCHELL, A. F., 1903, IV, Civil Engineer, Houston.
- MITTMAN, E. F., 1902, IV, Assistant Engineer, S. Pearson & Son, Salina Cruz, Oaxaca, Mexico.
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- MONTGOMERY, F. L., 1889, I, Lawyer, Sherman.
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- MOORE, G. F., 1908, IV, 2nd Lieutenant, U. S. Army, Fort Monroe, Va.

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 MOORE, R., 1892, I, Druggist, Tilden.
 MOORE, T. E., 1892, I, Physician, 110 E. Craig Place, San Antonio.
 MOORE, W. M., 1895, IV, Real Estate, McKinney.
 MOORE, W. G., 1907, V, Sales Eng. Arnold & Wetherby, Oklahoma City, Okla.
 MORRILL, C. R., 1891, IV, Assistant Superintendent, G., H. & S. A. R. R., El Paso.
 MOSELEY, HAL, 1901, IV, Civil Engineer, Dallas.
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 MOSER, C. OTTO, 1904, I, Manager Moser Hygienic Dairy Co., Dallas.
 MOURSUND, A. F., 1895, IV, Assistant Superintendent, G., V. G. & N. R. R., Globe.
 MOURSUND, E. M., 1897, IV, Resident Engineer, H. & T. C. R. R., Ennis.
 MOUSER, E. B., 1895, I, Physician, Electra.
 MULLINS, E. Y., 1879, President Southern Baptist Theological Seminary, Norton Hall, Louisville, Ky.
 MUNSON, A., 1908, V, Rice Farming, Angleton.
 MUNSON, H. W., 1909, V, Farmer, Angleton.
 MYERS, A. L., 1907, V, McFell Electrical Co., San Francisco, Cal.
 MYERS, O. W., 1900, III, Machinist, I. & G. N. Shops, 406 Austin St., Palestine.
 MYERS, W. G., 1894, III, Mining, Parral, Mexico.
 McCALL, H. S., 1903, IV, Resident Engineer, T. C. R. R., Waco.
 McCONNICO, S. F., 1901, I, Fire Insurance Inspector, Praetorian Building, Dallas.
 McCORMICK, GEO., JR., 1891, III, Chief Draftsman Motive Power Department, S. P. Co., Houston.
 McCULLOUGH, C. C., 1886, C. E., 1890, Surgeon U. S. Army, Manila, P. I.
 McDANIEL, A. A., 1909, I, Student Medical Department University of Texas, Galveston.
 McDONALD, H. F., 1895, III, Draftsman, General Land Office, Austin.
 McDONALD, W. H., 1902, I, Frontier Lumber Co., Brownsville.
 McELROY, T. E., 1908, I, U. S. Department of Agriculture, Brownsville.
 McFARLAND, ARTHUR, 1905, III, U. S. Engineering Corps, Galveston.
 McGINNIS, F. K., 1900, II, Farmer, Terrell.
 McGINNIS, N. M., 1908, I, Farmer, Terrell.
 McGREGOR, F., 1903, IV, Engineer Houston Electric Co., Houston.
 McKAY, G., 1903, III, Longview Iron Works, Longview.
 McKNIGHT, O. J., 1903, IV, Lumber Dealer, Dalhart.
 McLAVY, R. B., 1903, III, Electrician, Bastrop.
 McLENNAN, LAMAR, 1905, I, Deputy Feed Inspector, College Station.
 McLEOD, J. H., 1908, I, Farmer, Wills Point.
 McMILLAN, M., 1895, III, Physician and Surgeon, Comaguey, Calle Cisneros 22, Cuba.
 McMILLAN, S. A., 1909, I, Instructor in Rural Arts, College of Industrial Arts, Denton.
 MacNAIR, H. J., 1887, III, Compiler, 239 W. 39th St., New York City, N. Y.
 McNEIL, J. C., 1896, IV, Ranchman, Spur.
 McQUEEN, T. B., 1884, III, Secretary Marlin Oil Co., Marlin.
 NEALE, R. B., 1908, I, Stock Farmer, Leonard.
 NEATHERY, D. E., 1892, I, Merchant, Farmersville.
 NEFF, A. J., 1903, III, Manager Neff Foundry and Machine Co., Brownwood.
 NESS, H., 1889, II, Horticulturist Experiment Station, College Station.
 NETHERWOOD, D. B., 1908, III, U. S. Army, Fort Barrancas, Florida.
 NEWTON, G., 1898, I, Merchant, Thorndale.
 NICHOLS, J. F., 1898, II, City Mayor, Greenville.
 NICHOLS, J. R., 1889, I, Superintendent Southwestern Insane Asylum, San Antonio.
 NICHOLS, W. L., 1891, IV, Real Estate, 257 Main St., Dallas.
 NORTH, W. G., 1908, I, Cuero.
 O'BAR, J. H., 1893, I, Cotton Buyer, Coleman.
 OGLESBY, G. B., 1894, IV, Stock Farming, Cedar Mills.
 OLDS, T. H., 1902, IV, Fort Worth.
 OLIPHINT, J. W., 1903, IV, with S. Gibbs, Huntsville.
 ORR, W. R., 1906, IV, Grocer, Austin.
 ORTIZ, J. A., 1892, IV, Stockman, 915 Zaragossi St., Laredo.
 OVERSHINER, E. M., 1897, IV, County Attorney, Abilene.
 PAPE, G. H., 1904, IV, Agricultural and Industrial Experiments, German Government, Togo, Africa.
 *PARK, C. M., 1896, IV.

- PARSONS, B. C., 1893, II, Deputy Collector of Customs, Terlingua.
- PATRICK, A. T., 1883, III.
- PEARSON, H. A., 1893, IV, Farmer, Troy.
- PEDEN, L. T., 1904, IV, care F. L. Dormant, Houston.
- PENDLETON, DAVID E., 1905, IV, Instrumentman, H. & T. C. R. R., Ennis.
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- PENNINGTON, R. E., 1884, I, Lawyer, Brenham.
- PERLITZ, W. E., 1893, IV, Manager Independent Tel. Co., La Grange.
- PESCAY, C. H., 1885, III, Spécial Agent, Box 185, New Orleans, La.
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- PFEUFFER, F. L., 1885, III, Real Estate Colonizing, Omaja, Cuba.
- *PFEUFFER, W. O. R., 1888, I.
- PFEUFFER, U. S., 1891, IV, Lumber Merchant, New Braunfels.
- PHILPOTT, W. B., 1884, III, M. S., 1890, Amarillo, care D. M. Derden.
- PIRIE, J. E., 1904, IV, Assistant Roadmaster, Navasota.
- PIRIE, J. H., 1906, V, 1st Lieutenant Coast Artillery, U. S. Army, Tampa, Fla.
- PITTUCK, B. C., 1894, I, Dean District Agricultural Schools, Stillwater, Okla.
- POLANSKY, T., 1909, IV, Assistant Superintendent of Construction, College Station.
- POLK, W. A., JR., 1895, IV, Wholesale Grocer, Corsicana.
- POTTS, A. T., 1907, I, Superintendent Beeville Experiment Station, Beeville.
- POTTS, R. J., 1906, IV, C. E., 1907, Assistant Professor of Civil Engineering, College Station.
- *POULTER, R. J., 1899, II.
- PRICE, W. A., 1905, I, Farmer, Reagan.
- PUCKETT, F. S., 1907, I, Field Agent German Kali Works, 1224 Candler Bldg., Atlanta, Ga.
- PUCKETT, J. W., 1904, IV, Buda.
- RADFORD, J. S., 1899, II, Manager Oriental Textile Mills, Houston.
- RAGSDALE, J. W., 1890, I, Lawyer, Hallettsville.
- RAMSAY, J. W., 1906, V, Electrician, Socorra, N. M.
- RATCHFORD, W. P., 1892, III, County Surveyor, Del Rio.
- RATHER, J. B., 1907, I, Assistant State Chemist, College Station.
- RAWLINS, H. E., 1898, III, Superintendent Quarries Supply Co., Campo Florida, Cuba.
- REESE, G. W., 1907, IV, Civil Engineer, Arkansas City, Ark.
- REICHARDT, F. A., 1879, Treasurer Kirby Lumber Co., Houston.
- RENNERT, F., 1888, I, Cotton Exporter and Commission Merchant, Rennert-Millette Co., San Antonio.
- *RHODES, S. E., 1896, III.
- RHOME, R. J., 1901, I, Attorney at Law, Fort Worth.
- RICE, D., 1882, III, Public Weigher, 1197 Lamar St., Houston.
- RICE, E. R., 1902, III, Mining Engineer, Wickenburg, Arizona.
- RIDENHOWER, R., 1903, IV, Hico.
- RIDENOUR, C. A., 1909, IV, Surveyman, U. S. Engineer's Office, Port Arthur.
- RIFE, A. J., 1909, IV, U. S. Surveyman, Vicksburg, Miss.
- RIKE, H. M., 1893, IV, Abstractor, Haskell.
- RILEY, A. A., 1909, IV, Engineering Department S. P. R. R. Co., Houston.
- RISIEN, G. W., 1903, Draftsman, N. Y. C. & H. R. Ry., Room 1219 G. C. Station, New York City, N. Y.
- *ROACH, G. W., 1884, III.
- ROBERTSON, D. K., 1902, III, Deputy Surveyor, Pecos.
- ROBERTSON, R. L., 1909, I, Ranchman, Valentine.
- ROBINSON, E. R., 1908, I, Trenton.
- ROBSON, C. G., 1898, II, President Southern Tel. Co., La Grange.
- RODRIGUEZ, D., 1896 IV, Civil Engineer and Planter, 114 Zaraona St., C. Porfirio Diaz, Mexico.
- ROGAN, CHAS., 1879, Lawyer, Austin.
- ROGERS, B. F., 1889, IV, Banker, Jefferson.
- ROGERS, C. P., 1900, II, Attorney at Law, Austin.
- *ROGERS, G. A., 1887, III.
- ROGERS, R. A., 1878, Cotton Factor and Commission Merchant, Galveston.
- ROLLINS, A. P., 1906, IV, with T. L. Smith, Civil Engineer, Eagle Lake.
- ROLLINS, C. W., 1893, IV, Civil Engineer, Neches Canal Co., China.

- ROLLINS, H. M., 1897, III, Foreman Texas and New Orleans Creosoting Works, 1306 Texas Ave., Houston.
- ROSE, W. F., 1894, III, with Higgins Co., Box 490, San Antonio.
- ROSEBOROUGH, W. D., 1909, IV, Rodman for City Engineer, Houston.
- ROSENTHAL, H. H., 1896, IV, Merchant, Jefferson.
- ROSS, F. R., 1894, I, Physician and Surgeon, Houston.
- ROSS, J. G., 1894, IV, Attorney at Law, Cole Springs.
- ROSS, J. L., 1902, IV.
- ROSS, R., 1902, IV, Civil Engineer, S. Pearson & Son, 53 Gomez Palacios, Durango, Mexico.
- ROUNTREE, T. D., 1898, IV, Physician, Lake Creek.
- ROWELL, T. D., 1885, I, Attorney at Law, Jefferson.
- RUBENKOENIG, H., 1904, III, M., K. & T. R. R., 2621 Chess Ave., Parsons, Kan.
- RUDASILL, W. S., 1890, IV, Real Estate Dealer, Box 94, Sherman.
- RUST, W. M., JR., 1901, III, Signal Department, T. & N. O. R. R., Liberty.
- SAMMONS, THOMAS B., 1905, I, Farmer, Mission.
- SAMPSON, W. E., 1908, IV, with T. L. Smith, Civil Engineer, Eagle Lake.
- SAMUSCH, L., 1902, IV, Merchant, Hallettsville.
- SANDERS, P. L., 1903, IV, Bookkeeper, Galveston.
- SANDERS, W. O., 1896, II, Wholesale Provisions, Bryan.
- SAUVIGNET, E. H., 1892, I, Physician, Laredo.
- SAWYER, R., 1882, III, Breeder of High Grade Hereford Cattle, Clarendon.
- SCHADT, C. A., 1907, V, Merchant, 27th St. and Ave. H, Galveston.
- SCHAEFER, R. E., 1908, III, Salesman, Schulenburg.
- SCHAWWE, W. A., 1907, I, Ballinger.
- SCHERER, C. L., 1896, IV, City Engineer, Beaumont.
- SCHERER, W. A., 1898, II, Stockman, Anahuac.
- SCHILLER, R. E., 1906, IV, C. E., 1908, San Antonio.
- SCHMIDT, C. L., 1890, III, Agent Waters-Pierce Oil Co., Laredo.
- *SCHMIDT, D. T. C., 1894, IV.
- SCHMIDT, H., 1908, I, Veterinary Student, Germany.
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- SCHROEDER, ERWIN F., 1905, I, Student Ohio State University, Columbus, Ohio.
- SCHROETER, H., 1907, IV, care C. R. Yy. P. R. R., Mazatlan, Sonora, Mexico.
- SCHROETER, A., 1909, IV, U. S. Surveyman, Vicksburg, Miss.
- SCHUMACHER, H. C., 1892, IV, Wholesale Grocer, La Grange.
- SEWARD, O., 1907, IV, Office Engineer, Gulf Pipe Line Co., Tulsa, Okla.
- SEWELL, M. S., 1894, IV, Merchant, McGregor.
- SHANKLIN, R. W., 1906, IV, Civil Engineer for Mex. & N. W. R. R., Nuer Casa Grandes, Cia, Mexico.
- SHEARER, D. M., 1909, IV, Student Cornell University, Ithaca, N. Y.
- *SHIRES, F. N., 1897, III.
- SHIRES, G. M., 1897, III, City Boiler and Elevator Inspector, City Hall, Houston.
- SHIRLEY, A. L., 1884, I, Farmer and Merchant, Anna.
- *SHIRLEY, M. W., 1889, III.
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- SHORT, A. K., 1900, I, Professor of Animal Husbandry, University of Arkansas, Fayetteville, Ark.
- SHORT, J. L., 1893, I, Physician and Surgeon, 300-301 Kiam Building, Houston.
- *SIGEL, R. C., 1909, III.
- SIMPSON, J. H., 1901, IV, Deck Officer, U. S. Bache Fijardo, Porto Rico.
- SIMPSON, O. M., 1900, IV, Hardware, Callehan & Simpson, Jacksboro.
- SIMPSON, S. H., 1900, IV, Cashier Simpson Bank, Columbus.
- SKAGGS, G. E., 1908, V, Assistant Traffic Engineer, S. W. Tel. & Tel. Co., Dallas.
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- SMITH, A. J., 1908, I, Farmer, Port Sullivan.
- SMITH, A. U., 1895, III, Engineer, Murray Co., Dallas.
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- SMITH, G. A., 1909, V, Bermuda.
- SMITH, T. L., JR., 1898, IV, Civil Engineer and Surveyor, Eagle Lake.

- SMITH, T. M., 1901, I, Bookkeeper, Harris-Masterson, Houston.
- SMITHER, R., 1894, III, Carriage Repository, 211 San Jacinto St., Houston.
- *SMYTHE, H. G., 1879.
- SNEED, G. L., 1898, I, Minister, Station A, Dallas.
- SOLES, C. B., 1899, III, Machinist, I. & G. N. Shops, Palestine.
- *SPANN, E. W., 1885, III.
- SPEER, R. H., 1894, IV, Stockman, Quanah.
- SPIVEY, M. C., 1908, IV, Civil Engineer, care City Engineer, Houston.
- STALLCUP, J. F., 1904, IV, with McMurry Lumber Co., Houston.
- STANDIFER, R. H., 1903, IV, City Engineering Department, Fort Worth.
- STAPP, W. E., 1904, IV, Mexico National Railroad, Panuco, Mexico.
- STERNBERG, E. H., 1897, IV, County Superintendent of Public Instruction, Bellville.
- STERNENBERG, PAUL, 1905, III, Draftsman, Otis Elevator Co., Houston.
- STERNS, J. B., 1903, Civil Engineer, Nona Mills Co., Leesville, La.
- STEWART, W. W., 1883, III, Superintendent Oil Mill, Wortham.
- STINSON, V. L., 1904, IV, Civil Engineer and County Surveyor, Durant, Okla.
- STREET, GUS C., JR., 1905, I, Contractor, Houston.
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- SWAIN, M. S., 1888, II, Houston.
- TABOR, J. R., 1906, VII, Architect, Houston.
- TALBOT, A., 1882, III, Planter, Calvert.
- TARVER, T. C., JR., 1904, IV, City Engineer, Houston.
- TELFAIR, W. H., 1909, V, General Electric Co., Lynn, Mass.
- THANHEISER, C. A., 1901, IV, Assistant Superintendent Sunset Route, Houston.
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- TILSON, M. D., 1886, III, Manufacturer and Merchant, Texarkana.
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- TREADAWAY, S. J., 1907, IV, Rodman, G., C. & S. F. Ry. Co., Beaumont.
- TRENCKMANN, R., 1907, III, Fairbanks, Morse & Co., Beloit, Wis.
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- *TULLER, W. L., 1883, III.
- UECKERT, H. H., 1897, IV, Draftsman, B. & B. Department, Sunset Route, Houston.
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- VICK, JNO. C., 1904, III, Miller, Bryan.
- VINTHER, F., 1897, III, Machinist and Draftsman, 602 W. 15th Ave., Pine Bluff, Ark.
- VOELCKER, H. R., 1909, VII, Draftsman, Page Bros., Austin.
- VON ROSENBERG, F. C., 1884, III, Attorney at Law, Austin.
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- WALKER, W. T., 1906, VI, Roanoke Rapids Cotton Mills, Roanoke Rapids, N. C.
- WALLACE, L. W., 1903, III, Instructor in Car and Locomotive Design, Purdue University, West Lafayette, Ind.
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- WARDEN, J. A., 1908, IV, U. S. Army, Fort Sam Houston, San Antonio.
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- WASHBURN, H. A., 1906, IV, Student of Operation, T. & N. O. R. R., Houston.
- WASHBURN, JOHN E., 1905, III, Mechanical Engineer, National Carbon Co., Cleveland, Ohio.
- WASHBURN, W. W., 1908, IV, Civil Engineer for S. L. Chalk, 1307 Chenevert St., Houston.

- WATKINS, R. C., 1895, IV, Right of Way Agent, S. P. Co., Houston.
- WATKINS, W. A., 1892, IV, Insurance, Bryan.
- *WATSON, D. H., 1882, III.
- WATSON, W. D., 1893, I, Clerk, Markham.
- WEATHERBY, E. P., 1903, III, Signal Engineer, T. & P. Ry., Dallas.
- WEBB, THOMAS C., 1905, IV, 927 Franklin St., Waco.
- WEIDEL, J., 1893, IV, Resident Engineer, A., T. & S. F. Ry., 4 Arizona Ave., Trinidad, Colo.
- WEINERT, M. H., 1909, V, Teacher, Seguin.
- WELBOAN, J. S., 1906, I, Teller American National Bank, Houston.
- WELHAUSEN, C. B., 1891, III, Merchant, Shiner.
- WELHAUSEN, P. H., 1905, III, Assistant Cashier First National Bank, Shiner.
- WELLS, D. D., 1895, I, Physician, 18 San Diego, Acapulco, Mexico.
- *WESSEN, J. M., 1883, III.
- WESSENDORF, J. A., 1907, VI, Bookkeeper and Assistant Manager for J. A. Wessendorf, Richmond.
- WEST, T. B., 1887, III, Agent G., H. & S. A. Ry., Columbus.
- WHELAN, J. J., 1891, III, Machinist, H. & T. C. Ry., Houston.
- WHEAT, G. N., 1897, IV, S. P. R. R., San Antonio.
- WHEELER, A. C., 1905, I, Ranchman, Sue.
- WHISENANT, W. H., 1899, II, Pharmacist, 144 W. Commerce St., San Antonio.
- WHITAKER, W., 1885, III, Lumber Manufacturer, Texarkana.
- WHITE, G. R., 1895, IV, Banker, Brady.
- WHITENER, H. L., 1891, I, Physician, 2009 E. Grand Ave., St. Louis.
- WHITLOCK, E. H., 1886, III, Assistant Factory Manager, National Carbon Works, Cleveland, Ohio.
- WHITTET, A. B., 1908, III, Draftsman, Bureau of Ordnance, Washington, D. C.
- WHITTET, H. E., 1909, V, Anchorage.
- WHITTLE, C. T., 1899, III, Mining, Craig and 18th Sts., Pueblo, Colo.
- WINDROW, R. J., 1906, IV, Resident Engineer, G., C. & S. F. Ry., Sterling City.
- WINKLER, A., 1900, I, Farmer, The Grove.
- WIGHT, A. T., 1895, IV, General Merchandise, Roxton.
- WIGNALL, C. L., 1909, VII, Instructor in Department of Architectural Engineering and Drawing, College Station.
- WILLIAMS, I. L., 1903, III, Chief Draftsman, Signal Department Sunset Lines, Houston.
- WILLIAMS, L. D., 1897, IV, Bookkeeper Austin National Bank, Austin.
- WILLIAMS, J. S., 1909, I, Farmer, Yazoo City, Miss.
- WILSON, ASHLEY F., 1905, IV, Civil Engineer, Houston.
- WILSON, W., 1893, IV, Attorney at Law and County Judge Calhoun County, Port Lavaca.
- WIPPRECHT, W., 1884, I, B. S. A., 1389, Manager of the Bryan Press Co. and Tax Collector Brazos County, Bryan.
- WISDOM, F. L., 1896, IV, Bookkeeper for Frost-Johnson Lumber Co., Shreveport, La.
- WISE, W. F., 1909, IV, S. P. R. R. Co., Houston.
- WOOD, W. M., 1888, IV, Assistant Disbursing Office, I. C. Commission, Empire, Canal Zone.
- WOODALL, HOWARD, 1905, III, Murray Gin Co., Dallas.
- WOODS, HENRY S., 1905, V, E. E., 1907, General Electric Co., Kansas City, Mo.
- WOODWARD, W. F., 1886, III, Banker, Denton.
- WORTHING, E. E., 1903, III, Signal Supervisor, T. & N. O. R. R., Houston.
- WRAY, JAY, 1908, V, Centre Point.
- WRIGHT, A. A., 1906, I, Ranch, Poso, Mexico.
- WRIGHT, E., 1892, IV, Lawyer, Paris.
- WRIGHT, H. L., 1886, III, Member State Fire Rating Board, Drawer "R," Capitol, Austin.
- WURZBACH, W. A., 1888, IV, Lawyer, San Antonio.
- WYSE, IRA O., 1901, I, Dallas.
- WYSE, J. T., JR., 1905, I, Traveling Salesman, Texas Oil Co., Greenville.
- YAKE, H. G., 1906, I, Farmer, Taylor.
- YARBROUGH, R. W., 1901, III, Merchant and Planter, Red River Parish, Greening, La.
- YOUNG, M. H., 1907, VI, Cotton Buyer for Sanders & Co., Smithville.
- YOUNGBLOOD, B., 1902, I, M. S., 1907, Farm Management Investigations, Bureau of Plant Industry, U. S. Department of Agriculture, Oklahoma City, Okla.

NUMBER OF GRADUATES BY CLASSES.

Class of 1878.....	2	Class of 1894.....	31
Class of 1879.....	23	Class of 1895.....	27
Class of 1880.....	7	Class of 1896.....	22
Class of 1881.....	1	Class of 1897.....	27
Class of 1882.....	12	Class of 1898.....	23
Class of 1883.....	8	Class of 1899.....	22
Class of 1884.....	14	Class of 1900.....	26
Class of 1885.....	10	Class of 1901.....	19
Class of 1886.....	11	Class of 1902.....	27
Class of 1887.....	10	Class of 1903.....	36
Class of 1888.....	17	Class of 1904.....	36
Class of 1889.....	19	Class of 1905.....	39
Class of 1890.....	14	Class of 1906.....	46
Class of 1891.....	16	Class of 1907.....	45
Class of 1892.....	25	Class of 1908.....	49
Class of 1893.....	15	Class of 1909.....	47
			<hr/>
Counted twice			726
			<hr/>
Total graduates			721
Deceased			42
			<hr/>
			679

APPENDIX A.

SPECIMEN ENTRANCE EXAMINATIONS.

For Admission to the Freshman Class.

Special attention is called to the following specimen entrance examinations. Young men intending to apply for admission are urged to satisfy themselves by actual trial before coming to College that they can answer such questions.

Algebra.

1. Factor: $x^3 + y^3$, $x^6 - y^6$, $x^2 + 4x - 21$.
2. Simplify: $\left(\frac{a+b}{a-b} + \frac{a^2+b^2}{a^2-b^2}\right) \div \left(\frac{a-b}{a+b} - \frac{a^3-b^3}{a^3+b^3}\right)$
3. Given $\frac{x-y}{4} - \frac{2x-y-1}{3} = \frac{2y-2}{5}$ and $\frac{2y+x-1}{9} = \frac{x+y}{4}$, find the values of x and y .
4. Find the square root of $10x^2 - 4x^3 + 9 - 12x + x^4$.
5. Simplify: $3a^2 \times a^{\frac{1}{3}}$, $6a^2 \div 3a^5$, $(a^2)^7$.
6. Reduce: $\frac{3\sqrt[3]{5} + 2\sqrt[3]{2}}{3\sqrt[3]{5} - 2\sqrt[3]{2}}$ to an equivalent fraction having a rational denominator.
7. Solve: $\sqrt{2x-7} + \sqrt{2x-9} = 8$.
8. Solve: $7 - 12x^2 = 17x$.
9. Determine by inspection the sum of the roots of $8x^2 + 13x - 82 = 0$.

Geometry.

1. Only one perpendicular can be drawn to a given line from a given external point.
2. Two triangles are equal if two sides and the included angle of the one are equal, respectively, to two sides and the included angle of the other.
3. Two angles whose sides are perpendicular, each to each, are either equal or supplementary.

4. In the same circle or in equal circles, equal chords are equally distant from the center.

5. An inscribed angle is measured by half the arc intercepted between its sides.

6. In a triangle ABC, $AB=12$, $AC=14$, $BC=13$. Find the segments of BC made by the bisector of the angle A.

7. Find the area of an equilateral triangle, if one side equals 8 feet.

8. The area of a circle is equal to half the product of its radius by its circumference.

Grammar.

“*A clear fire, a clean hearth, and the rigour of the game.*’ *This was the celebrated wish of old Sarah Battle (now with God), who, next to her devotions, loved a good game at whist.* * * * * *

* * * She sate *bolt* upright; and *neither* showed you her cards, nor desired to see *yours*. All people have their blind side—their superstitions; and I have *heard her declare, under the rose, that Hearts was her favourite suit.*”

1. What parts of speech are the italicized words?
2. What is the grammatical function of each of the underscored words and expressions?
3. Point out the antecedent of each pronoun in the passage.
4. What is the difference between a phrase and a clause?
5. Classify the clauses in this passage from both the standpoint of form and the standpoint of function.
6. What is the difference in grammatical function between “side” and “that Hearts was her favourite suit”? Between “clean” and “who loved a good game at whist”?
7. Account for the punctuation of the passage.
8. What do you understand by the grammatical terms: Case, Gender, Number, Person, Mood, Voice and Tense?

Composition.

1. Write a theme containing 300 words on the following subject: *The Most Embarrassing Position I Was Ever In.* Pay special attention to *clear* and forceful expression.
2. Write a letter to a friend, telling of your trip to college, and your first impressions of college life.

History.

1. Name the European nations that acquired colonial possessions within the present limits of United States, and locate their several claims.
2. What territory formed the original United States?
3. Give a brief account of the French and Indian war, stating the causes and results.
4. Name the important campaigns of the Revolutionary War, and write a short account of one of them.
5. Name an important event connected with the life of each of the following persons: Hamilton, Jefferson, Jackson, Calhoun and Webster.
6. What is the Monroe Doctrine, and what were the circumstances of its first announcement?
7. What was the Missouri Compromise?
8. Name five American inventors, and give the name of an invention made by each.
9. State the cause, name two of the principal battles, and give the result of the Mexican War.
10. Give a short history of the differences between President Johnson and Congress.
11. Name and discuss briefly the three leading religions of China.
12. Name the services that the Hebrews have rendered civilization.
13. Compare and contrast the characters of David and Solomon.
14. Who was the father of history? The last of the Pharaohs?
15. Give a brief account of the Trojan War.
16. Give an account of the early growth of Athens and Sparta.
17. Name the Punic Wars, and give the causes of each.
18. Who composed the first and second triumvirates?
19. Tell about the persecution of the Christians during the reign of Nero.
20. Tell about the capture and destruction of Jerusalem by Titus during Vespasian's reign.

FOR ADMISSION TO THE SUB-FRESHMAN CLASS.

Algebra.

1. Divide: $6x^4 - x^3 - 10x - 11x^2 - 2$ by $2x^2 - 3x - 1$.
2. Factor: $125x^3y^6 + 8$.
3. Find the highest common factor of
 $x^2 - 2x - 15$ and $x^2 + 10x + 21$.
4. Find the lowest common multiple of
 $x^2 - 11x + 24$, $x^2 - 6x - 16$, $x^2 - x - 6$.

5. Simplify: $\frac{1}{1+x} + \frac{1}{1-x} - \frac{2x}{1-x^2}$.
6. Simplify: $\left(\frac{x}{x-1} - \frac{x+1}{x}\right) \div \left(\frac{x}{x+1} - \frac{x-1}{x}\right)$.
7. Solve: $\frac{5x-1}{6} - \frac{1-2x}{1+2x} = \frac{2x+1}{3}$.

History.

1. Give a brief history of Florida until it became a part of the United States.
2. Give an account of Bacon's Rebellion in Virginia.
3. State two or more of the opinions advocated by Roger Williams that were offensive to the authorities of Massachusetts Colony.
4. What was the Stamp Act? Give its history.
5. Give an account of one of the following events: The opening of Oklahoma; the Johnstown flood; the labor troubles at Homestead, Pennsylvania.
6. Name the first battle of the Revolution; the last battle.
7. Contrast the political views of Jefferson and Hamilton.
8. What was the Hartford Convention? How did it affect the Federalist party and why?
9. Give a brief account of Bragg's Kentucky campaign during the Civil War.
10. Give accounts of the assassination of two of our Presidents.

APPENDIX B.

CURRICULA FOR CLASSES TO GRADUATE IN 1911, 1912, 1913.

COURSE IN AGRICULTURE.

Note.—The number in parentheses following the name of a department refers to the number of the course as shown in the description of the department. Practice is indicated by italics.

SOPHOMORE YEAR.

Fall.	Hours per week.	Winter.	Hours per week.	Spring.	Hours per week.
Animal Husb'dry (3)	3	Botany (1)	3	Animal Husb'dry (4)	3
Judging.		Morphology, Syst. Bot.		Judging.	
Botany (1)	3	Horticulture (2)	3	Horticulture (3)	3
Morphology, Syst. Bot.		Nursery Methods.		Truck Gardening.	
Agriculture (1)	3	Mathematics (3)	3	Botany (1)	3
Farm Crops.		Trigonometry.		Morphology, Syst. Bot.	
Chemistry (1)	3	Chemistry (1)	3	Chemistry (1)	3
Inorganic.		Inorganic.		Inorganic.	
English (2)	3	English (2)	3	English (2)	3
Literature.		Literature.		Literature.	
Physics (6)	3	Veter. Science (1)	3	Mathematics (3)	3
Elementary.		Anatomy and Physiology.		Trigonometry.	
		Botany (1)	2½		
<i>Animal Husb'dry (3)</i>	2½	<i>Veter. Science (1)</i>	2½	<i>Animal Husb'dry (4)</i>	2½
<i>Agriculture (1)</i>	2½	<i>Horticulture (2)</i>	2½	<i>Horticulture (3)</i>	2½
<i>Chemistry (1)</i>	2½	<i>Chemistry (6)</i>	2½	<i>Chemistry (6)</i>	2½
<i>Physics (6)</i>	2½	<i>Mech. Eng. (14a)</i>	2½	<i>Botany (1)</i>	2½
		Blacksmithing.			

GROUP B—HORTICULTURE.

JUNIOR YEAR.

Fall.	Hours per week.	Winter.	Hours per week.	Spring.	Hours per week.
Horticulture (4) Orchards.	3	Horticulture (5), (7) Small Fruits, Viti- culture.	3	Horticulture (6), (8) Plant Breeding and Spraying.	6
Agriculture (4) Irrigation and Drainage.	3	Entomology (2) Systematic.	3	Entomology (3) Economic.	3
Civil Eng. (1) Surveying and Leveling.	3	Military Science (1) Drill Regulations.	3	Chemistry (5) Agricultural.	3
Chemistry (5) Agricultural.	3	Chemistry (5) Agricultural.	3	Physics (5) General.	3
Physics (5) General.	3	Physics (5)	3		
Veter. Science (3) Contagious Diseases.	2	Veter. Science (4) Diseases of Domestic Animals.	3	Veter. Science (5) Parasites and Parasitic Diseases.	3
Or Chemistry (2) Organic.	3	Or Chemistry (2) Organic.	3	Or Chemistry (3) Economic Geology.	3
Horticulture (4)	2½	Horticulture (7)	2½	Horticulture (6), (8)	5
Chemistry (5)	2½	Chemistry (5)	2½	Chemistry (5)	2½
Physics (5)	2½	Physics (5)	2½	Physics (5)	2½
Civil Eng. (1)	2½	Entomology (2)	2½	Entomology (2)	2½
Chemistry (2) (Optional.)	2½	Chemistry (2) (Optional.)	2½	Chemistry (2) (Optional.)	2½

SENIOR YEAR.

Horticulture (9) Pomology.	3	Horticulture (10) Citrus Fruit.	3	Horticulture (11) Experimental.	3
Botany (2) Physiology and Nutri- tion.	3	Botany (3) Plant Diseases.	3	Botany (3) Plant Diseases.	3
Entomology (4) Fruit Insects.	3	History (3) Ind. and Soc.	3	History (3) Ind. and Soc.	3
History (3) Ind. and Soc.	3	Agriculture (7) Farm Powers.	3	Hort. (12), (13) Or Chemistry (9)	3
		Or Chemistry (9) Agricultural Analysis.	3		
Military Science (2)	1				
Horticulture (14) Forestry.	2				
Or Chemistry (9) Agricultural Analysis.	3				
Horticulture (9)	2½	Horticulture (10)	2½	Horticulture (11)	2½
Botany (2)	2½	Botany (3)	2½	Botany (3)	2½
Entomology (4)	2½	Agriculture (7)	2½	Horticulture (13)	5
Chemistry (1) (Optional.)	5	Or Chemistry (9)	5	Or Chemistry (9)	5

GROUP C—ANIMAL HUSBANDRY.

JUNIOR YEAR.

Fall.	Hours per week.	Winter.	Hours per week.	Spring.	Hours per week.
Agriculture (2)	3	Animal Husb'dry (5)	3	Animal Husb'dry (6)	3
Farm Crops.		Breeding.		Breeding.	
Agriculture (10)	2	Entomology (2)	3	Agriculture (3)	3
Dairying.		Systematic.		Farm Crops.	
Chemistry (2)	3	Chemistry (2)	3	Chemistry (3)	3
Organic.		Organic.		Economic Geology.	
Physics (5)	3	Physics (5)	3	Physics (5)	3
General.		General.		General.	
Veter. Science (2)	2	Veter. Science (4)	3	Veter. Science (5), (6)	4
Pharmacology.		Diseases Domestic Animals.			
Veter. Science (3)	2	Military Science (1)	3		
Contagious Diseases.		Drill Regulations.		<i>Animal Husb'dry (6)</i>	<i>2½</i>
<i>Agriculture (2), (10)</i>	<i>5</i>	<i>Entomology (2)</i>	<i>2½</i>	<i>Agriculture (3)</i>	<i>2½</i>
<i>Chemistry (2)</i>	<i>2½</i>	<i>Chemistry (2)</i>	<i>2½</i>	<i>Chemistry (3)</i>	<i>2½</i>
<i>Physics (5)</i>	<i>2½</i>	<i>Physics (5)</i>	<i>2½</i>	<i>Physics (5)</i>	<i>2½</i>
<i>Veter. Science (2)</i>	<i>2½</i>	<i>Veter. Science (4)</i>	<i>5</i>	<i>Veter. Science (6)</i>	<i>2½</i>

SENIOR YEAR.

Animal Husb'dry (7)	3	Animal Husb'dry (8)	3	Agriculture (9)	3
Feeding.		Feeding.		Farm Equipment and Management.	
Animal Husb'dry (10)	3	Animal Husb'dry (11)	3	Animal Husb'dry (9)	3
Adv. Animal Husb'dry.		Management.		Feeding.	
Chemistry (5)	3	Chemistry (5)	3	Chemistry (5)	3
Agricultural.		Agricultural.		Agricultural.	
Military Science (2)	1	History (3)	3	History (3)	3
History (3)	3	Ind. and Soc.		Ind. and Soc.	
Ind. and Soc.		Agri. (7) or (11)	3	Agri. (8) or (12)	3
Architectural Eng. (1)					
Or Botany (4)	3				
<i>Animal Hus. (7), (9)</i>	<i>5</i>	<i>Animal Husb'dry (8)</i>	<i>2½</i>		
<i>Chemistry (7)</i>	<i>2½</i>	<i>Chemistry (7)</i>	<i>2½</i>	<i>Ani. Hus. (10), (11)</i>	<i>5</i>
<i>Architectural Eng. (1)</i>	<i>2½</i>	<i>Veter. Science (7)</i>	<i>2½</i>	<i>Chemistry (7)</i>	<i>2½</i>
<i>Or Botany (4)</i>	<i>2½</i>	<i>Agri. (7) or (11)</i>	<i>2½</i>	<i>Agri. (8) or (12)</i>	<i>2½</i>

TWO-YEAR COURSE IN AGRICULTURE.

SECOND YEAR.

Fall.	Hours per week.	Winter.	Hours per week.	Spring.	Hours per week.
Agriculture (4), (10) Irrigation and Drain- age and Dairying.	6	Animal Hus. (5), (7) Breeding, Feeding.	6	Animal Husb'dry (8) Feeding.	3
Veter. Science (2) Pharmacology.	2	Agriculture (8) Farm Machinery.	3	Agriculture (9) Farm Equipment and Management.	3
Horticulture (4) Orchards.	3	Horticulture (5) Small Fruits.	1	Horticulture (6) Plant Breeding.	3
Chemistry (8) Practical.	3	Botany (6) Seeds.	3	Entomology (3) Economic.	3
English (3b)	3	Chemistry (8) Practical. English (3b)	3	Chemistry (8) Practical. Veter. Science (6) Obstetrics.	3 2
<i>Agriculture (4), (10)</i>	<i>5</i>	<i>Animal Hus. (5), (7)</i>	<i>5</i>	<i>Animal Husb'dry (8)</i>	<i>2½</i>
<i>Veter. Science (2)</i>	<i>2½</i>	<i>Agriculture (8)</i>	<i>2½</i>	<i>Agriculture (9)</i>	<i>2½</i>
<i>Horticulture (4)</i>	<i>2½</i>	<i>Horticulture (5)</i>	<i>2½</i>	<i>Entomology (3)</i>	<i>2½</i>
<i>Chemistry (8)</i>	<i>2½</i>	<i>Chemistry (8)</i>	<i>2½</i>	<i>Horticulture (6)</i>	<i>2½</i>
				<i>Veter. Science (6)</i>	<i>2½</i>

COURSE IN ARCHITECTURAL ENGINEERING.

SOPHOMORE YEAR.

Fall.	Hours per week.	Winter.	Hours per week.	Spring.	Hours per week.
Drawing (6)	3	Drawing (6)	3	Civil Eng. (1)	3
Descriptive Geometry.		Descriptive Geometry.		Surveying and Leveling.	
English (2)	3	English (2)	3	English (2)	3
Literature.		Literature.		Literature.	
Languages (1) or (3)	3	Languages (1) or (3)	3	Languages (1) or (3)	3
French or German.		French or German.		French or German.	
Mathematics (4)	6	Mathematics (5), (6)	6	Mathematics (6)	6
Trigonometry.		Algebra, Analytics.		Analytics.	
Physics (2)	3	Physics (2)	3	Physics (2)	3
General.		General.		General.	
Drawing (2), (7)	5	Drawing (2), (7)	5	Drawing (2), (7)	5
M'ch. E'g. (14) or (13)	2½	M'ch. E'g. (14) or (13)	2½	Civil Eng. (1)	2½
Physics (2)	2½	Physics (2)	2½	Physics (2)	2½

JUNIOR YEAR.

Arch. Eng. (1)	3	Arch. Eng. (3a)	2	Civil Eng. (3)	3
Building Construction.		Hist. of Architecture.		Mech. of Materials.	
Physics (3)	3	Electrical Eng. (15)	1	Civil Eng. (5)	3
Electricity.		Lighting and Wiring.		Roots and Bridges.	
Languages (2) or (4)	3	Chemistry (1)	3	Chemistry (1)	3
French or German.		Inorganic.		Inorganic.	
Mathematics (7)	3	Languages (2) or (4)	3	Languages (2) or (4)	3
Calculus.		French or German.		French or German.	
Chemistry (1)	3	Mathematics (7)	3	Mathematics (7)	3
Inorganic.		Calculus.		Calculus.	
		Military Science (1)	3		
		Drill Regulations.			
Arch. Eng. (2)	5	Arch. Eng. (4)	2½	Arch. Eng. (4)	2½
Drawing (3), (8)	4½	Drawing (3), (8)	4½	Civil Eng. (5)	2½
Chemistry (1)	2½	Chemistry (6)	2½	Drawing (3)	2
		Physics (3)	2½	Chemistry (6)	2½
				Physics (3)	2½

SENIOR YEAR.

Arch. Eng. (3b)	3	Arch. Eng. (3c)	3	Arch. Eng. (10)	3
Hist. of Architecture.		Hist. of Architecture.		Materials of Construction.	
Civil Eng. (5)	3	Arch. Eng. (8)	3	Arch. Eng. (11)	3
Roofs and Bridges.		Building Construction.		Sanitary Engineering of Buildings.	
Civil Eng. (3)	3	Arch. Eng. (9)	6	Civil Eng. (7)	3
Mech. of Materials.		Heating and Ventilating.		Masonry Structures.	
History (3)	3	History (3)	3	Chemistry (3)	3
Ind. and Soc.		Ind. and Soc.		Economic Geology.	
Mathematics (8)	3			History (3)	3
Practical Mathematics.				Ind. and Soc.	
Military Science (2)	1				
Arch. Eng. (5)	2½	Arch. Eng. (6), (7)	5	Arch. Eng. (6), (7)	5
Drawing (4)	2	Drawing (4)	2	Chemistry (3)	2½
Civil Eng. (3), (5)	7½	Arch. Eng. (9)	5		

COURSE IN CHEMICAL ENGINEERING.

SOPHOMORE YEAR.

Fall.	Hours per week.	Winter.	Hours per week.	Spring.	Hours per week.
Drawing (6)	3	Drawing (6)	3	Civil Eng. (1)	3
English (2)	3	English (2)	3	English (2)	3
Mathematics (4)	6	Mathematics (5), (6)	6	Mathematics (6)	6
Physics (2)	3	Physics (2)	3	Physics (2)	3
Chemistry (1)	3	Chemistry (1)	3	Chemistry (1)	3
Inorganic.		Inorganic.		Inorganic.	
<i>Drawing</i> (2), (7)	5	<i>Drawing</i> (2), (7)	2½	<i>Drawing</i> (2), (7)	2½
<i>M'ch. E'g.</i> (14) or (13)	2½	<i>Mech. Eng.</i> (15)	2½	<i>Chemistry</i> (6)	2½
<i>Chemistry</i> (1)	2½	<i>Chemistry</i> (6)	2½	<i>Physics</i> (2)	2½
		<i>Physics</i> (2)	2½	<i>Civil Eng.</i> (1)	2½

JUNIOR YEAR.

Chemistry (2)	3	Chemistry (2)	3	Chemistry (3)	3
Organic.		Organic.		Economic Geology.	
Chemical Eng. (1)	3	Chemical Eng. (2)	3	Chemical Eng. (3)	3
Industrial Inorganic.		Metallurgy of Iron and Steel.		Industrial Organic.	
Mathematics (7)	3	Mathematics (7)	3	Mathematics (7)	3
Physics (3)	3	Physics (3)	3	Physics (4)	3
Mech. Eng. (1)	3	Military Science (1)	3	Civil Eng. (3)	3
Elementary.					
<i>Chemistry</i> (2)	2½	<i>Chemistry</i> (2)	2½	<i>Chemistry</i> (3)	2½
<i>Chemical Eng.</i> (4)	5	<i>Chemical Eng.</i> (5)	5	<i>Chemical Eng.</i> (6)	5
<i>Drawing</i> (8)	2½	<i>Physics</i> (3)	2½	<i>Physics</i> (3)	2½
		<i>Drawing</i> (8)	2½		

SENIOR YEAR.

Chemical Eng. (7)	3	Chemical Eng. (7)	3	Chemical Eng. (8)	3
Physical.		Physical.		Electro Chemistry.	
Chem. Eng. (9) or (10)	2	Chem. Eng. (9) or (10)	2	Chem. Eng. (9) or (10)	2
Technical Anal. or Adv. Industrial Chem.		Technical Anal. or Adv. Industrial Chem.		Technical Anal. or Adv. Industrial Chem.	
Mech. Eng. (5a)	3	Mech. Eng. (5a)	3	Mech. Eng. (5a)	3
Civil Eng. (3)	3	Mech. Eng. (7)	3	Mech. Eng. (7)	3
		Eng. Mechanics.		Eng. Mechanics.	
Military Science (2)	1				
History (3)	3	History (3)	3	History (3)	3
Ind. and Soc.		Ind. and Soc.		Ind. and Soc.	
<i>Chemical Eng.</i> (7)	2½	<i>Chemical Eng.</i> (7)	2½	<i>Chemical Eng.</i> (8)	2½
<i>Chem. Eng.</i> (9) or (10)	5	<i>Chem. Eng.</i> (9) or (10)	5	<i>Chem. Eng.</i> (9) or (10)	5
<i>Mech. Eng.</i> (16)	2½	<i>Mech. Eng.</i> (17)	2½		
* <i>Civil Eng.</i> (3)	2½				

*For one-half term.

COURSE IN CIVIL ENGINEERING.

SOPHOMORE YEAR.

Fall.	Hours per week.	Winter.	Hours per week.	Spring.	Hours per week.
Drawing (6)	3	Drawing (6)	3	Civil Eng. (1)	3
Descriptive Geometry.		Descriptive Geometry.		Surveying and Leveling.	
English (2)	3	English (2)	3	English (2)	3
Literature.		Literature.		Literature.	
Languages (1) or (3)	3	Languages (1) or (3)	3	Languages (1) or (3)	3
French or German.		French or German.		French or German.	
Mathematics (4)	6	Mathematics (5), (6)	6	Mathematics (6)	6
Trigonometry.		Algebra, Analytics.		Analytics.	
Physics (2)	3	Physics (2)	3	Physics (2)	3
General.		General.		General.	
Drawing (2), (7)	5	Drawing (2), (7)	5	Drawing (2), (7)	5
M'ch. Eng. (14) or (13)	2½	Physics (2)	2½	Civil Eng. (1)	2½
Physics (2)	2½	M'ch. Eng. (14) or (13)	2½	Physics (2)	2½

JUNIOR YEAR.

Civil Eng. (2)	3	Civil Eng. (2)	3	Civil Eng. (3)	3
City, Topo. Surv. and R. R. Eng.		City, Topo. Surv. and R. R. Eng.		Mechanics of Materials.	
Physics (3)	3	Chemistry (1)	3	Civil Eng. (5)	3
Electricity.		Inorganic.		Roofs and Bridges.	
Languages (2) or (4)	3	Languages (2) or (4)	3	Chemistry (1)	3
French or German.		French or German.		Inorganic.	
Mathematics (7)	3	Mathematics (7)	3	Languages (2) or (4)	3
Calculus.		Calculus.		French or German.	
Chemistry (1)	3	Military Science (1)	3	Mathematics (7)	3
Inorganic.		Drill Regulations.		Calculus.	
Civil Eng. (2)	5	Civil Eng. (2)	2½	Civil Eng. (5)	2½
Drawing (8)	2½	Chemistry (6)	2½	Chemistry (6)	2½
Chemistry (1)	2½	Drawing (8)	2½	Drawing (8)	2½
		Physics (3)	2½	Physics (3)	2½

SENIOR YEAR.

Civil Eng. (3)	3	Civil Eng. (4)	3	Civil Eng. (7)	3
Mechanics of Materials.		Highways and Pavements.		Masonry Structures.	
Civil Eng. (5)	3	Civil Eng. (5)	3	Civil Eng. (8a)	3
Roofs and Bridges.		Roofs and Bridges.		Water Supply.	
Civil Eng. (6)	3	Civil Eng. (6)	3	Civil Eng. (8b)	3
Hydraulics.		Hydraulics.		Sewerage.	
History (3)	3	Civil Eng. (6a)	3	Chemistry (3)	3
Ind. and Soc.		Irrigation and Drainage.		Economic Geology.	
Mathematics (8)	3	History (3)	3	History (3)	3
Practical Mathematics.		Ind. and Soc.		Ind. and Soc.	
Military Science (2)	1			Civil Eng. (5)	5
Civil Eng. (3), (5)	10	Civil Eng. (5), (6)	10	Chemistry (3)	2½

COURSE IN ELECTRICAL ENGINEERING.

SOPHOMORE YEAR.

Fall.	Hours per week.	Winter.	Hours per week.	Spring.	Hours per week.
Drawing (6)	3	Drawing (6)	3	Civil Eng. (1)	3 ✓
Descriptive Geometry.		Descriptive Geometry.		Surveying and Leveling.	
English (2)	3 ✓	English (2)	3	English (2)	3
Literature.		Literature.		Literature.	
Mathematics (4)	6	Mathematics (5), (6)	6 ✓	Mathematics (6)	6
Trigonometry.		Algebra, Analytics.		Analytics.	
Mech. Eng. (1)	3	Mech. Eng. (1)	3	Mech. Eng. (2)	3
Power.		Power.		Kinematics.	
Physics (2)	3 ✓	Physics (2)	3 ✓	Physics (2)	3 ✓
General.		General.		General.	
Drawing (2), (7)	2½ ✓	Drawing (2), (7)	5 ✓	Drawing (2), (7)	5
M'ch. Eng. (14) or (13)	5 ✓	Mech. Eng. (15a)	2½ ✓	Civil Eng. (1)	2½ ✓
Physics (2)	2½	Physics (2)	2½	Physics (2)	2½

JUNIOR YEAR.

Chemistry (1)	3	Chemistry (1)	3	Chemistry (1)	3
Inorganic.		Inorganic.		Inorganic.	
Mathematics (7)	3	Mathematics (7)	3	Mathematics (7)	3
Calculus.		Calculus.		Calculus.	
Physics (4)	4 ✓	Physics (4)	3	Physics (4)	4
Electricity.		Electricity		Electricity and Magnet.	
Mech. Eng. (5a)	3	Mech. Eng. (5a)	3	Mech. Eng. (5a)	3
Electrical Eng. (1)	5	Military Science (1)	3	Electrical Eng. (1)	5
Elec. Measurements.		Drill Regulations.		Elec. Measurements.	
Electrical Eng. (1)	5	Electrical Eng. (1)	5	Electrical Eng. (1)	5
Chemistry (1)	2½	Chemistry (6)	2½	Chemistry (6)	2½
Drawing (8)	2½	Drawing (8)	2½	Drawing (8)	2½

SENIOR YEAR.

Electrical Eng. (2)	3	Electrical Eng. (2)	3	Electrical Eng. (10)	3
Electrical Machinery.		Electrical Machinery.		Alternating Currents.	
Military Science (2)	1	Elec. Eng. (3), (9)	3	Elec. Eng. (3), (9)	3
		Specifications.		Specifications.	
History (3)	3	History (3)	3	History (3)	3
Ind. and Soc.		Ind. and Soc.		Ind. and Soc.	
Mathematics (8)	3	Electrical Eng. (10)	3	Electrical Eng. (11)	3
Practical Mathematics.		Alternating Currents.		Telephone Engineering.	
Elec. Eng. (4), (9)	3	Mathematics (9)	3	Civil Eng. (3)	3
		Practical Mathematics.		Mechanics of Materials.	
Electrical Eng. (10)	3				
Alternating Currents.					
Elec. Eng. (2), (4)	10	Elec. Eng. (2), (4)	10	Elec. Eng. (2), (4)	7½

COURSE IN MECHANICAL ENGINEERING.

SOPHOMORE YEAR.

Fall.	Hours per week.	Winter.	Hours per week.	Spring.	Hours per week.
Drawing (6)	3	Drawing (6)	3	Civil Eng. (1)	3
Descriptive Geometry.		Descriptive Geometry.		Surveying and Leveling.	
English (2)	3	English (2)	3	English (2)	3
Literature.		Literature.		Literature.	
Mathematics (4)	6	Mathematics (5), (6)	6	Mathematics (6)	6
Trigonometry.		Algebra, Analytics.		Analytics.	
Mech. Eng. (1)	3	Mech. Eng. (1)	3	Mech. Eng. (2)	3
Elementary.		Elementary.		Kinematics.	
Physics (2)	3	Physics (2)	3	Physics (2)	3
General.		General.		General.	
Drawing (2), (7)	2½	Drawing (2), (7)	5	Drawing (2), (7)	2½
M'ch. Eng. (14) or (13)	5	Mech. Eng. (15)	2½	Civil Eng. (1)	2½
Physics (2)	2½	Physics (2)	2½	Mech. Eng. (15)	5

JUNIOR YEAR.

Chemistry (1)	3	Chemistry (1)	3	Chemistry (1)	3
Inorganic.		Inorganic.		Inorganic.	
Civil Eng. (9)	3	Mech. Eng. (5)	3	Civil Eng. (3)	3
Stresses.		Steam Engines.		Mechanics of Materials.	
Mathematics (7)	3	Mathematics (7)	3	Mathematics (7)	3
Calculus.		Calculus.		Calculus.	
Mech. Eng. (4)	3	Military Science (1)	3	Mech. Eng. (5)	3
Steam Boilers.		Drill Regulations.		Steam Engines.	
Physics (3)	3	Physics (3)	3	Physics (4)	3
Electricity.		Electricity.		Electricity and Magnet.	
Chemistry (1)	2½	Chemistry (6)	2½	Chemistry (6)	2½
Drawing (8)	2½	Drawing (8)	2½	Drawing (8)	2½
Mech. Eng. (16)	5	Mech. Eng. (17)	2½	Mech. Eng. (17)	2½
		Physics (3)	2½	Physics (3)	2½

SENIOR YEAR.

Mech. Eng. (6)	3	Mech. Eng. (7)	3	Mech. Eng. (7)	3
Thermodynamics.		Engineering Mechanics.		Engineering Mechanics.	
Chem. Eng. (1)	3	Chem. Eng. (2)	3	Mech. Eng. (8)	3
Indus. Inorg.		Metallurgy.		Gas Engine Design.	
Civil Eng. (3)	3	History (4)	3	Mech. Eng. (9)	3
Mechanics of Materials.		Ind. and Soc.		Engineering Design.	
History (3)	3	Mathematics (9)	3	History (5)	3
Ind. and Soc.		Practical Mathematics.		Ind. and Soc.	
Mathematics (8)	3	Mech. Eng. (6)	3	Chem. Eng. (3)	3
Practical Mathematics.		Thermodynamics.		Ind. Org.	
Military Science (2)	1	Chem. Eng. (5)	5		
Mech. Eng. (11), (17)	10	Mech. Eng. (18)	5	Mech. Eng. (12), (18)	7½

COURSE IN TEXTILE ENGINEERING.

SOPHOMORE YEAR.

Fall.	Hours per week.	Winter.	Hours per week.	Spring.	Hours per week.
Drawing (6) Descriptive Geometry.	3	Drawing (6) Descriptive Geometry.	3	Textile Eng. (1) Yarn Manufacturing.	2
				Textile Eng. (11) Designing.	1
English (2) Literature.	3	English (2) Literature.	3	English (2)	3
Mathematics (4) Trigonometry.	6	Mathematics (5), (6) Algebra, Analytics.	6	Mathematics (6)	6
Mech. Eng. (1) Power.	3	Mech. Eng. (1) Power.	3	Mech. Eng. (2) Kinematics.	3
Physics (2) General.	3	Physics (2) General.	3	Physics (2)	3
Drawing (2), (7)	2½	Drawing (2), (7)	5	Drawing (2), (8)	2½
M'ch. Eng. (14) or (13)	5	Mech. Eng. (15)	2½	Textile Eng. (1), (5)	7½
Physics (2)	2½	Physics (2)	2½		

JUNIOR YEAR.

Textile Eng. (2) Yarn Manufacturing.	3	Textile Eng. (2) Yarn Manufacturing.	1	Textile Eng. (2) Yarn Manufacturing.	3
Textile Eng. (6) Power Weaving.	1	Textile Eng. (6) Power Weaving.	1	Textile Eng. (6) Power Weaving.	1
Textile Eng. (11) Designing.	2	Textile Eng. (11) Designing.	1	Textile Eng. (12) Designing.	2
Chemistry (1) Inorganic.	3	Chemistry (1) Inorganic.	3	Chemistry (1) Inorganic.	3
Mathematics (7) Calculus.	3	Mathematics (7) Calculus.	3	Mathematics (7) Calculus.	3
		Military Science (1) Drill Regulations.	3		
Physics (3) Electricity.	3	Physics (3) Electricity.	3	Physics (4) Electricity and Magnet.	3
Chemistry (1)	2½	Chemistry (6)	2½	Chemistry (6)	2½
Drawing (8)	2½	Physics (3)	2½	Physics (3)	2½
Textile Eng. (2), (6)	7½	Textile Eng. (2), (6)	7½	Textile Eng. (2), (7)	7½

SENIOR YEAR.

Textile Eng. (3) Yarn Manufacturing.	3	Textile Eng. (8) Power Weaving.	2	Textile Eng. (3) Yarn Manufacturing.	2
Textile Eng. (8) Power Weaving.	2	Textile Eng. (12) Designing.	4	Textile Eng. (12) Designing.	4
Textile Eng. (12) Designing.	4	Chemistry (2) Organic.	3	Textile Eng. (14) Mill Management.	2
Chemistry (2) Organic.	3	Chemistry (4) Dyeing.	2	Chemistry (4) Dyeing.	3
History (3) Ind. and Soc.	3	History (3) Ind. and Soc.	3	History (3) Ind. and Soc.	3
Military Science (2)	1				
Text. Eng. (3), (8)	10	Textile Eng. (3), (9)	7½	Textile Eng. (3), (9)	7½
Chemistry (2)	2½	Chemistry (2), (4)	7½	Chemistry (4)	5

COURSE IN CIVIL ENGINEERING.

(Leading to the Degree of Civil Engineer.)

FIFTH YEAR.

Fall.	Hours per week.	Winter.	Hours per week.	Spring.	Hours per week.
Civil Eng. (10)	3	Civil Eng. (13)	3	Civil Eng. (13)	3
Astronomy.		Gen'l Civil Eng.		Gen'l Civil Eng.	
Civil Eng. (11)	3	Civil Eng. (11)	3	Civil Eng. (14)	3
Least Squares.		Geodesy.		Contracts.	
Civil Eng. (12)	3	Civil Eng. (12)	3	Civil Eng. (12)	3
Bridge Designing.		Bridge Designing.		Bridge Designing.	
*Elective	6	*Elective	6	*Elective	6
<i>Civil Eng.</i>	7½	<i>Civil Eng.</i>	7½	<i>Civil Eng.</i>	7½

COURSE IN ELECTRICAL ENGINEERING.

(Leading to the Degree of Electrical Engineer.)

FIFTH YEAR.

Electrical Eng. (5)	6	Electrical Eng. (5)	6	Electrical Eng. (5)	6
Electrical Designing.		Electrical Designing.		Electrical Designing.	
Electrical Eng. (6)	3	Electrical Eng. (6)	3	Electrical Eng. (16)	3
Adv. Elec. Machinery.		Adv. Elec. Machinery.		Telephony.	
*Elective	6	*Elective	6	*Elective	6
<i>Elec. Eng. (5), (6)</i>	7½	<i>Elec. Eng. (5), (6)</i>	7½	<i>Elec. Eng. (5), (16)</i>	7½

COURSE IN MECHANICAL ENGINEERING.

(Leading to the Degree of Mechanical Engineer.)

FIFTH YEAR.

Mechanical Eng.	3	Mechanical Eng.	3	Mechanical Eng.	3
Analytical Mechanics.		Pumping Machinery.		Analytical Mechanics.	
Mechanical Eng.	3	Mechanical Eng.	3	Mechanical Eng.	3
Steam Power Plants.		Analytical Mechanics.		Contracts and Speci-	
Mechanical Eng.	3	Mechanical Eng.	3	cations.	
Thermodynamics.		Refrigerating Machinery.		Mechanical Eng.	3
*Elective	6			Pumping Machinery.	
		*Elective	6	*Elective	6
<i>Mechanical Eng.</i>	7½	<i>Mechanical Eng.</i>	7½	<i>Mechanical Eng.</i>	7½

*Subject to approval of head of department in which major work is done.

COURSE IN TEXTILE ENGINEERING.

(Leading to the Degree of Textile Engineer.)

FIFTH YEAR.

Fall.	Hours per week.	Winter.	Hours per week.	Spring.	Hours per week.
Textile Eng. (4) Yarn Manufacture.	3	Textile Eng. (4) Yarn Manufacture.	3	Textile Eng. (4) Yarn Manufacture.	3
Textile Eng. (10) Weaving.	3	Textile Eng. (13) Designing.	6	Textile Eng. (13) Designing.	3
Textile Eng. (13) Designing.	3			Textile Eng. (15) Mill Management.	3
*Elective	6	*Elective	6	*Elective	6
<i>Text. Eng.</i> (4), (10)	7½	<i>Text. Eng.</i> (4), (10)	7½	<i>Text. Eng.</i> (4), (10)	7½
* <i>Elective</i>	2½	* <i>Elective</i>	2½	* <i>Elective</i>	2½

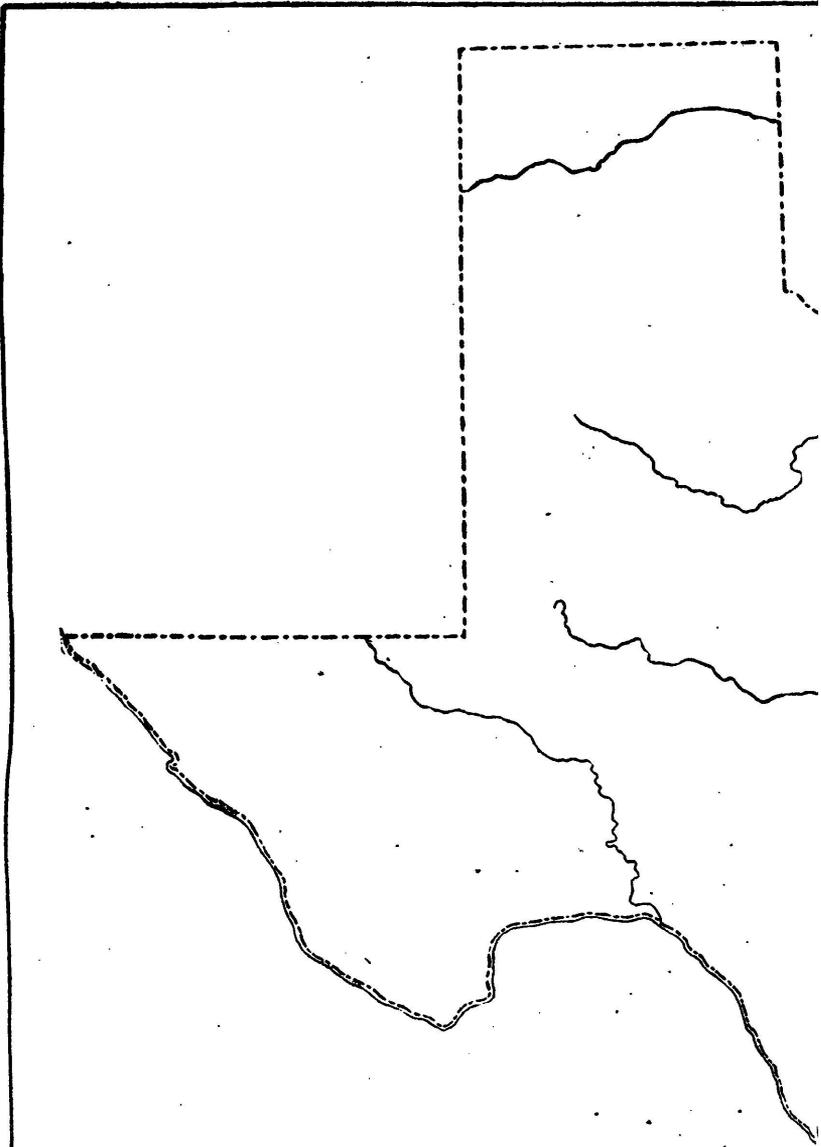
TWO-YEAR COURSE IN TEXTILE ENGINEERING.**SECOND YEAR.**

Textile Eng. (3) Yarn Manufacture.	3	Textile Eng. (3) Yarn Manufacture.	3	Textile Eng. (3) Yarn Manufacture.	2
Textile Eng. (7) Weaving.	2	Textile Eng. (7) Weaving.	2	Textile Eng. (13) Mill Management.	2
Textile Eng. (11) Designing.	4	Textile Eng. (11) Designing.	4	Textile Eng. (11) Designing.	4
English (3b) Comp. and Rhetoric.	3	English (3b) Comp. and Rhetoric.	3	English (3b) Comp. and Rhetoric.	3
<i>Drawing</i> (2)	2	<i>Drawing</i> (2)	2	<i>Drawing</i> (2)	2
<i>Drawing</i> (7)	3	<i>Drawing</i> (7)	3	<i>Drawing</i> (8)	3
<i>Mech. Eng.</i> (14)	5	<i>Mech. Eng.</i> (15), (16)	5	<i>Mech. Eng.</i> (16)	5
<i>Text. Eng.</i> (3), (7)	10	<i>Text. Eng.</i> (3), (7)	10	<i>Text. Eng.</i> (3), (7)	10

*Subject to approval of head of department in which major work is done.

INDEX.

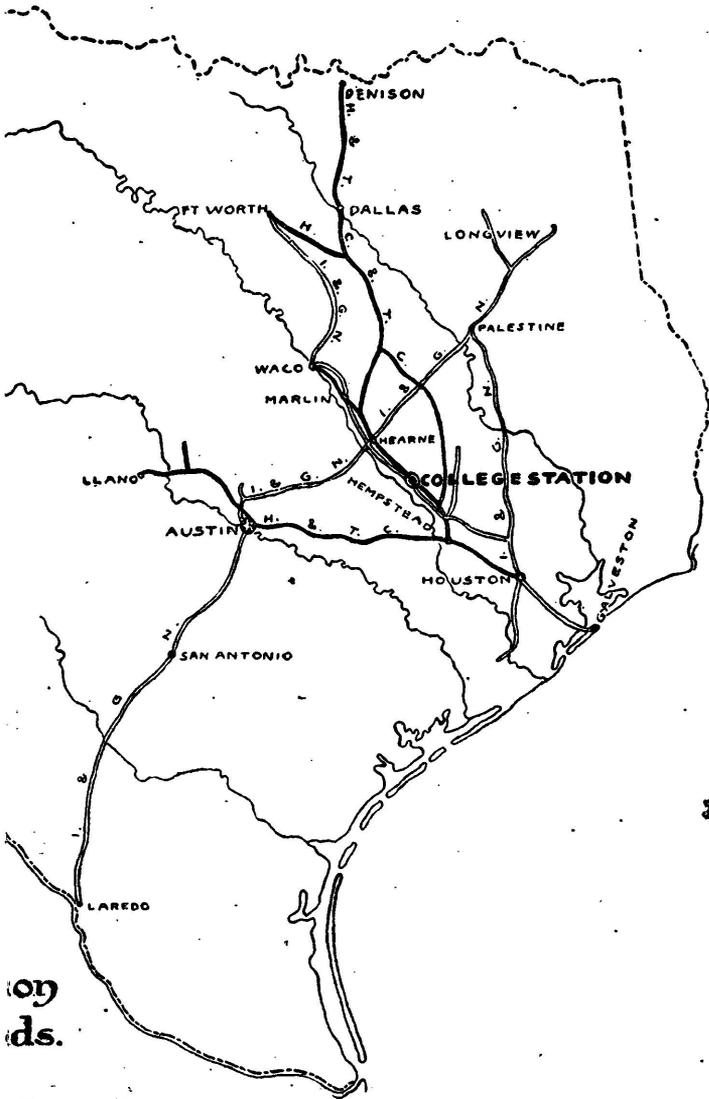
Page.	Page.
Admission, Requirements for..... 17	Expulsions 21
Affiliated Schools 131	Faculty 6
Agricultural Course 24	Farm 129
Alumni Association 171	Farmers' Institutes 52
Architectural Engineering Course.... 54	Fifth Year Courses 97
Athletics 129	
Band 130	General Information 121
Board of Directors..... 5	General Studies 100
Books 20	Grades 121
Buildings 125	Graduate Course in Agriculture..... 22
Cadet Exchange 20	Graduating Class 169
Catalogue of Students..... 141	Graduation 127
Chemical Engineering 58	Health 16
Civil Engineering Course..... 64	Historical Sketch 11
College Calendar 4	Honors 125
Courses of Study..... 22	
Degrees and Honors..... 168	Laboratory Fees 19
Department of—	Library 129
Agriculture 29	Literary Society 131
Animal Husbandry 33	Matriculation 18
Architectural Engineering	Mechanical Engineering Course..... 78
and Drawing 56, 105	Methods and Scope of Instruction.... 14
Botany and Zoology..... 36	Objects 13
Chemistry and Mineralogy..... 100	Postoffice 15
Civil Engineering 66	Regimental Organization 165
Electrical Engineering 73	Religion 129
English 107	Reports 121
History 109	Session 17
Horticulture 40	Sewerage System 128
Languages 111	Special Examinations 125
Mathematics 112	Student Labor 21
Mechanical Engineering 80	Sub-freshman Class 118
Military Science 114	Summer Schools 120
Physics 116	
Textile Engineering 89	Textile Engineering Course 87
Veterinary Science 44	Two-Year Courses 46, 48, 95
Discipline 15	Uniforms 20
Distinguished Students 168	Vaccination 17
Electrical Engineering 71	
Entrance Examinations 18	
Examinations 122	
Expenses 19	
Experiment Station 50	



MAP of TEXAS

showing the location of College Station
and of the H.&T.C. and I.&G.N. Railroads

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