

BULLETIN
OF THE
AGRICULTURAL and MECHANICAL COLLEGE OF TEXAS

THE SUMMER SESSION NUMBER

JUNE 7—AUGUST 27, 1932

FIRST TERM—June 7—July 16

SECOND TERM—July 18—August 27

Open to Men and Women



COLLEGE STATION, TEXAS

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GENERAL STATEMENT

The program of work provided by the Summer Session of the Agricultural and Mechanical College of Texas is such that a student may complete a large part of his four-year course through summer study. In this way it is entirely feasible for the capable student to finish a regular four-year course in three years. In addition to the regular freshman and sophomore courses a number of advanced courses are offered for juniors and seniors who wish to shorten the period of residence by summer work. Graduate work is provided in practically all departments of the college so that high school teachers and others may have opportunity for study in courses leading to the Master of Science degree. Conferences, short courses and lecture series furnish opportunities for mature men and women engaged in vocational and professional pursuits to secure additional training in their field. During the 1931 Summer Session more than thirty-five hundred men and women took advantage of these non-credit courses.

CALENDAR—1932

FIRST TERM

- June 7—Tuesday, Registration in the College and the School of Cotton.
- June 7-10—Short Course for Graduate Veterinarians.
- June 7-25—Short Course for Teachers of Vocational Agriculture.
- June 8—Wednesday, class work begins.
- June 9—Thursday, last day on which students may register for credit.
- June 15-20—Course for Cotton Oil Mill operators.
- June 27-July 16—Short Course for Teachers of Vocational Agriculture.
- July 16—Saturday, Term examinations; Registration for second term.

SECOND TERM

- July 18—Monday, class work begins. Registration of new students.
- July 20—Wednesday, last day on which students may register for credit.
- July 25-30—Farmers Short Course; Ninth Annual County Superintendents' Conference.
- August 27—Term examinations. Close of Summer Session.

AGRICULTURAL and MECHANICAL COLLEGE OF TEXAS

T. O. WALTON, LL.D., *President*

SUMMER SESSION, 1932

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WILLIAMS, E. L., M.S., *Professor of Industrial Education.*
WILLIAMS, D. W., M.S., *Professor of Animal Husbandry.*

ORGANIZATION

The work of the 1932 summer session will be given in the following five divisions:

1. The College, including the Graduate School and the three weeks' Course for Vocational Teachers.
2. The Summer School of Cotton.
3. The Short Course for Graduate Veterinarians.
4. The Farmers' Short Course.
5. The Short Courses for Cotton Oil Mill Operators.

ADMISSION

In the College Division courses will be offered subject to the same general admission requirements as in the regular session.

There are no specific academic requirements for admission to the various Short Courses and the Summer School of Cotton.

All undergraduate courses in the Summer School are open to Men and Women.

BOARD AND ROOM AT COLLEGE

Room accommodations will be provided for summer session students in the College dormitories. These buildings are modern fire proof structures provided with electric lights and water in all rooms. All students living in the dormitories, except women, teachers and graduate students, are required to take their meals in Sbisa Hall, the large College Mess Hall. Students living in private rooming houses may obtain meals at Sbisa Hall by securing a regular meal coupon book.

The cost of room and board per term of six weeks is \$49.00. This does not include laundry. Students should bring bed linen, pillows and towels.

DORMITORIES FOR WOMEN

Two dormitories will be used by women and by married couples without children. The rate for room is \$7.00 per person (two in a room) for a term of six weeks. The rooms are equipped with the usual articles of furniture provided in all

of the college dormitories. Bed linen, pillows, towels, and window curtains are furnished by the student.

Women students may obtain meals in the Mess Hall by purchasing the regular meal coupon book (\$42.00 per term of six weeks); at the Aggieland Inn Coffee Shop and Dining Room; or in boarding houses adjacent to the campus.

BOARD AND LODGING IN BRYAN

The city of Bryan, in close proximity to the College Campus, affords splendid facilities for students desiring room and board. Teachers, graduate students, and others who desire to bring their families, can secure a furnished house or rooms for light housekeeping, at reasonable rates during the summer months.

EQUIPMENT

The entire educational facilities of the College are available for students of the summer session. Buildings are well lighted and equipped with modern shops and laboratories. The college farms and greenhouses are conveniently located and form an important part of the instructional facilities for students in agriculture.

The general library will be open during the summer session on week days from 8 a. m. to 5 p. m.

The Exchange Store on the campus carries a complete line of text books, reference books, stationary and general supplies needed by students.

LECTURES AND ENTERTAINMENT

In addition to the regular program of entertainment offered during the summer—the general reception for students and faculty, group smokers and club banquets—the committee has made arrangements to bring two special features to the College this summer. Strickland Gillilan, national humorist, and “a laugh-making friend of you and yours,” will give an address about June 16. A week later the Glen Wells Company will be presented in the three-act drama “Let’s Go Somewhere.”

Through the co-operation of the Y. M. C. A. two motion

picture shows will be provided each week. The swimming pool in the Y will be open to students the entire term. Two golf courses are available to students. The Bryan Country Club Course, one of the finest in Central Texas, is located midway between College and Bryan. The College Heights Golf Course is located about one mile south of the campus.

EXPENSES

For students in the College and in the Summer School of Cotton:

Matriculation fee, per term	\$ 5.00
Medical Service, payable once only	2.00
Board per term of six weeks	42.00
Room rent per term of six weeks	7.00
Lectures and entertainments (optional) see page 850

(All fees are payable at time of registration.)

In addition to these general expenses certain courses require a laboratory fee.

A key deposit of \$1.00 will be required of all students who room in the dormitories.

Refund of maintenance will be made only in case the student is required to withdraw by Faculty action or 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 refund of the unused portion of his maintenance fee.

HOW TO REGISTER

1. Report to Registration Desks in Lobby of the Academic Building, and fill out Registration card.
2. Report to the Cashier, Room 114, first floor Academic Building, and pay your fees.
3. Report to the Commandant, Room 101, first floor, Academic Building, for assignment to room in dormitory.
4. Report to the Director of the Summer Session, Room

209, second floor, for the approval of your program.

5. Report to the Registrar, Room 212, second floor, Academic Building.

6. If further information is desired consult the Registrar, or the Director of the Summer Session.

All official notices concerning the Summer Session will be posted on bulletin boards Nos. 5 and 6, first floor, Academic Building.

All inquiries relatives to the Summer Session should be addressed to the Director of the Summer Session, or the Registrar, College Station, Texas.

GRADUATE STUDENTS

Graduate students will report to the Dean of the Graduate School, Room 204, to obtain Registration Cards.

THE COLLEGE

(June 7 to August 27)

All courses in this division carry college credit and are open only to those who have had the prerequisite training. The work will be given in two term of six weeks each. The first term will begin June 7 and will end July 16. The second term will begin July 18 and will end August 27.

The maximum number of hours that a student may take in a six week's term is the equivalent of seven semester hours, except in the case of students who have had approved teaching experience or those making a superior record during the regular session. With the consent of the Director of the Summer Session these students may take the equivalent of eight semester hours. All rules of the regular session apply to the Summer Session in the matters of prerequisites, grades, examinations and class absences.

Three cases of tardiness to class will be counted as one absence.

Registration for work in the College Division will not be permitted after the third day of each term. All students who do not complete their registration on the first day of each

term will be charged a fee of two dollars for late registration. For sufficient reason, students entering on the second day of each term may be excused from paying the late registration fee.

The right is reserved to withdraw any course for which less than five students register.

COURSES OF INSTRUCTION BY DEPARTMENTS

For a description of the courses listed below, see the College catalogue for the regular session. This catalogue may be obtained from the Registrar. Figures in parentheses indicate recitation hours per week. Figures in brackets indicate value of course in term hours.

Recitations begin at 7:30. The forenoon is divided into four class periods, as follows:

First period from 7:30 to 8:45.

Second period from 9:00 to 10:00.

Third period from 10:00 to 11:15.

Fourth period from 11:30 to 12:30.

FIRST TERM

(June 7 to July 16)

AGRICULTURAL EDUCATION

501S. Advanced Methods in Agricultural Education.	(12-0)	[4]
Daily 7:30. (Additional hours to be arranged).		
502S. Advanced Methods in Agricultural Education.	(12-0)	[4]
Daily 10:00. (Additional hours to be arranged).		
505S. Supervised Practice.	(12-0)	[4]
Daily 10:00. (Additional hours to be arranged).		
506S. Administration and Supervision of Agricultural Education.	(12-0)	[4]
Daily 7:30.		
509S. Part-time Classes.	(6-0)	[2]
Daily 9:00.		
510S. Evening Schools.	(6-0)	[2]
Hours to be arranged.		
511S. Evening School Problems.	(6-0)	[2]
Daily 11:30.		

- 512S. The Use of Agricultural Outlook Material. (6-0) [2]
Daily 11:30.

AGRICULTURAL ENGINEERING

- 321S. Farm Shop. (3-9) [2]
MWF 9:00; Daily 7:30.
Laboratory fee, \$1.50.
- 424S. Terracing. (0-9) [1]
MWF 1:30-4:30.
Laboratory fee, 50 cents.
- 510S. Advanced Farm Shop. (6-9) [3]
Prerequisite: Agricultural Engineering 321, 322.
Daily 11:30. (Practice hours to be arranged).
Laboratory fee, \$1.50.

AGRONOMY

- 301S. Soils. (9-6) [4]
Daily 11:30. (Practice hours to be arranged).
Prerequisite: Chemistry 101, 102.
Laboratory fee, 50 cents.
- 501S. Advanced Farm Crops. (6-12) [3]
MTWF 10:00. (Practice hours to be arranged).
- 505S. Advanced Soils. (6-12) [3]
Daily 9:00. (Practice hours to be arranged).
- 506S. Advanced Soils. (6-12) [3]
Daily 11:30. (Practice hours to be arranged).

ANIMAL HUSBANDRY

- 416S. Live Stock Management. (9-6) [4]
Prerequisite: Animal Husbandry 409.
Daily 7:30; TTh 1:30-4:30.
- 501S. Advanced Animal Nutrition. (6-12) [3]
Daily 11:30. (Practice hours to be arranged).

BIOLOGY

- 101S. General Botany. (6-12) [3]
Daily 11:30; MWF 1:30-5:30.
Laboratory fee, 50 cents.
- 207S. General Zoology. (6-12) [3]
Daily 9:00; MWF 1:30-5:30.
Laboratory fee, \$1.00.
- 501S. Vegetable Morphology. (6-12) [3]
Daily 9:00. (Practice hours to be arranged).
Laboratory fee, \$2.00.

CHEMISTRY

- 101S. General Inorganic Chemistry. (9-9) [4]
 Sec. 1. Daily 7:30; MWF 1:30-4:30.
 Sec. 2. Daily 10:00; TTh 1:30-5:30. (Additional
 practice hours to be arranged).
 Laboratory fee, \$2.00.
- 102S. General Inorganic Chemistry. (9-9) [4]
 Sec. 1. Daily 7:30; MWF 1:30-4:30.
 Sec. 2. Daily 10:00; TTh 1:30-5:30. (Additional
 practice hours to be arranged).
 Laboratory fee, \$2.00.
- 212S. Agricultural Chemistry. (9-0) [3]
 Prerequisite: Chemistry 102.
 Daily 10:00.
- 214S. Agricultural Analysis. (3-9) [2]
 To be taken with Chemistry 212.
 TThS 11:30; MWF 1:30-4:30:
 Laboratory fee, \$3.00.

CIVIL ENGINEERING

- 300S. Surveying Practice.
 Prerequisite: Civil Engineering 202.
 Daily except S, 8:30-5:25.
 Laboratory fee, \$1.50.

DAIRY HUSBANDRY

- 202S. Dairying. (6-6) [3]
 Daily 9:00, TTh 1:30-4:30.
 Laboratory fee, 75 cents.
- 501S. Advanced Dairy Production. (6-12) [3]
 MTWF 7:30. (Practice hours to be arranged).
- 502S. Advanced Dairy Production. (6-12) [3]
 Daily 11:30. (Practice hours to be arranged).

ECONOMICS

- 203S. Principles of Economics. (9-0) [3]
 Daily 10:00.
- 311S. Money and Banking. (9-0) [3]
 Prerequisite: Economics 203, 204.
 Daily 10:00.
 Or
- 316S. Business Law. (9-0) [3]
 Prerequisite: Sophomore standing.
 Daily 10:00.

- 403S. Principles of Economics. (9-0) [3]
Daily 7:30.
- 505S. Public Finance. (12-0) [4]
Daily 7:30. (Additional hours to be arranged).

ELECTRICAL ENGINEERING

- 202S. Elementary Electrical Engineering. (6-12) [3]
Prerequisite: Electrical Engineering 201,
Mathematics 104 or 112.
Daily 9:00, MWF 1:30-5:30.
Laboratory fee, 75 cents.
- 204S. Electric Wiring and Repair. (6-12) [3]
Prerequisite: Physics 201.
Daily 11:30, TTh 1:30-5:30. (Additional practice
hours to be arranged).
Laboratory fee, \$1.50.

ENGINEERING DRAWING

- 111S. Mechanical Drawing. (0-18) [2]
Daily except S, 1:30-5:00.
- 124S. Descriptive Geometry. (6-12) [3]
Daily 9:00; MWF 1:30-5:30.
- 201S. Mechanical Drawing. (0-6) [1]
Prerequisite: Engineering Drawing 111.
TTh 1:30-4:30.
- 202S. Mechanical Drawing. (0-6) [1]
Prerequisite: Engineering Drawing 111.
MW 1:30-4:30.

ENGINEERING RESEARCH

- 501S, 502S. Research. Credit 2 to 6 hours.
- 503S, 504S. Research. Credit 2 hours.
(Schedule of hours to be arranged with head
of department).

ENGLISH

- 103S. Rhetoric and Composition. (9-0) [3]
Daily 7:30.
- 203S. Composition and Literature. (6-0) [2]
Prerequisite: English 103, 104.
Daily 9:00.
- 231S. English Literature. (9-0) [3]
Prerequisite: English 103, 104.
Daily 7:30.

- 315S. English Literature of the Seventeenth Century. (6-0) [2]
Prerequisite: English 231, 232, or 203, 210.
Daily 11:30.
- 401S. Public Speaking. (6-0) [2]
Prerequisite: English 203, 210, or 231, 232.
Daily 11:30.
- 415S. Contemporary Continental Drama. (6-0) [2]
Prerequisite: English 231, 232, or 203, 210.
Daily 9:00.

ENTOMOLOGY

- 201S. General Entomology. (6-6) [3]
MTWF 10:00; MW 1:30-4:30.
Laboratory fee, 75 cents.
- 502S. Systematic Entomology. (6-12) [3]
Daily 9:00. (Practice hours to be arranged).
Laboratory fee, \$2.00.
- 507S. Economic Entomology. (6-12) [3]
MTWF 7:30. (Practice hours to be arranged).
Laboratory fee, \$2.00.

GENETICS

- 301S. Genetics. (9-6) [4]
Prerequisite: Biology 101, 102.
Daily 7:30; TTh 1:30-4:30.
Laboratory fee, \$1.00.
- 501S. Advanced Plant Genetics. (6-12) [3]
Daily 9:00. (Practice hours to be arranged).
- 505S. Advanced Biometry. (6-12) [3]
Daily 11:30. (Practice hours to be arranged).

GEOLOGY

- 201S. General Geology. (9-6) [4]
Prerequisite: Chemistry 102.
Daily 10:00; TTh 1:30-4:30.
Laboratory fee, \$1.50.
- 202S. Historical Geology. (9-9) [4]
Prerequisite: Geology 201.
Daily 7:30; MWF 1:30-4:30.
Laboratory fee, \$2.00.
Or
- 307S. Mineralogy and Petrology. (9-12) [4]
Prerequisite: Chemistry 102.
Daily 7:30; MWF 1:30-5:30.
Laboratory fee, \$2.00.

HISTORY

- 103S. The Development of Modern Europe. (9-0) [3]
Daily 10:00.
- 305S. Citizenship. (9-0) [3]
Daily 7:30.

HORTICULTURE

- 201S. Plant Propagation and Orchardling. (6-6) [3]
Prerequisite: Biology 101, 102.
Daily 11:30; TTh 1:30-4:30.
Laboratory fee, 75 cents.
- 418S. Nut Culture. (3-9) [2]
Prerequisite: Horticulture 201.
MWF 9:00 MWF 1:30-4:30.
Laboratory fee, \$1.50.

INDUSTRIAL EDUCATION

- 202S. Job Analysis. (6-0) [2]
Daily 9:00.
- 204S. Development and Practice in Industrial
Education. (9-0) [3]
Daily 10:00.
- 301aS. Methods of Teaching and Class
Management. (9-0) [3]
Daily 7:30.
- 324S. Methods of Teaching Mechanical and
Machine Drawing. (3-9) [2]
MWF 9:00; MWF 1:30-4:30.
- 406S. Vocational Guidance. (6-0) [2]
Daily 11:30.
- 505S. Philosophy of Industrial Education. (12-0) [4]
Daily 9:00 and 11:30.
- 508S. Organization and Management in Industrial
Education. (12-0) [4]
Daily 7:30. (Additional hours to be arranged).
- 510S. Methods of Teaching High School
Drawing. (6-12) [3]
Daily 11:30. (Practice hours to be arranged).

LANDSCAPE ART

- 301S. Introduction to Landscape Art. (6-12) [3]
 Prerequisite: Landscape Art 202, Arch. 205, 206.
 Daily 9:00; MWF 1:30-5:30.
- 301aS. Elementary Landscape Design. (6-12) [3]
 Daily 11:30; TTh 1:30-5:30. (Additional practice
 hours to be arranged).

MARKETING AND FINANCE

- 302S. Marketing. (9-0) [3]
 Prerequisite: Economics 203, 204, or Economics 403,
 or Agricultural Economics 312.
 Daily 7:30.
- 501S. Advanced Marketing Problems. (6-12) [3]
 Daily 9:00. (Practice hours to be arranged).
- 502S. Advanced Marketing Problems. (6-12) [3]
 Daily 11:30. (Practice hours to be arranged).

MATHEMATICS

- 101S. Algebra. (9-0) [3]
 Daily 7:30.
- 103S. Plane Trigonometry. (9-0) [3]
 Daily 10:00.
- 104S. Analytics. (9-0) [3]
 Prerequisite: Mathematics 101, 103, or 111.
 Daily 9:00 and MWF 11:30.
- 203S. Calculus. (15-0) [5]
 Prerequisite: Mathematics 104 or 112.
 Daily 7:30 and 11:30.
- 204S. Calculus. (15-0) [5]
 Prerequisite: Mathematics 203.
 Daily 7:30 and 11:30.

MECHANICAL ENGINEERING

- 101S. Engineering Problems. (3-6) [1]
 MWF 11:30; MW 1:30-4:30.
- 102S. Engineering Problems. (3-6) [1]
 TThS 11:30; TTh 1:30-4:30.
- 212S. Engineering Mechanics. (9-0) [3]
 Must be preceded or accompanied by Mathematics 204.
 Daily 10:00.
- 317S. Engineering Mechanics. (9-0) [3]
 Must be preceded or accompanied by Mathematics 204.
 Daily 10:00.

PHYSICS

- 201S. College Physics. (9-6) [4]
 Daily 7:30; TTh 1:30-4:30.
 Laboratory fee, 50 cents.
- 203S. General Physics. (9-9) [4]
 Prerequisite: Mathematics 112.
 Daily 10:00; MWF 1:30-4:30.
 Laboratory fee, \$1.00.

POULTRY HUSBANDRY

- 303S. Turkey Production. (6-0) [2]
 Daily 9:00.
- 501S. Research Problems. (6-12) [3]
 MTWF 7:30. (Practice hours to be arranged).
- 502S. Research Problems. (6-12) [3]
 Daily 11:30. (Practice hours to be arranged).

RURAL EDUCATION

- 121S. Elementary School Methods. (9-0) [3]
 MWF 9:00 and daily 11:30.
- 321S. Secondary School Methods. (9-0) [3]
 Sec. 1. Daily 7:30.
 Sec. 2. Daily 10:00.
- 423S. The Junior High School. (9-0) [3]
 Daily 7:30.
- 424S. Principles of Rural School Supervision. (9-9) [4]
 Prerequisite: Rural Education 221, 222.
 Daily 10:00; MWF 1:30-4:30.
- 501S. Problems in Rural Education. (12-0) [4]
 Daily 7:30. (Additional hours to be arranged).
- 505S. Principles of Educational Administration. (12-0) [4]
 Daily 10:00. (Additional hours to be arranged).
- 507S. Principles of City School Supervision. (12-0) [4]
 Daily 9:00 and 11:30.
- 509S. Curriculum Construction. (6-0) [2]
 Daily 9:00.

RURAL SOCIOLOGY

- 201S. Introduction to Social Problems. (9-0) [3]
 Daily 10:00.
- 502S. Advanced Rural Sociology. (12-0) [4]
 Daily 7:30. (Additional hours to be arranged).
- 512S. The Rural Community. (12-0) [4]
 Daily 9:00 and 11:30.

VETERINARY MEDICINE AND SURGERY

371S. Clinics.	(0-21)	[2]
Hours to be arranged.		
Laboratory fee, \$2.00.		
471S. Clinics.	(0-21)	[2]
Hours to be arranged.		
Laboratory fee, \$2.00.		

GRADUATE COURSES

For the rules and regulations governing graduate work, and for a description of the courses listed below, the student is referred to the Catalogue of the regular session. The following graduate courses will be given during the first term of the 1932 Summer Session.

Department	Courses
Agricultural Education	501-2-3-5-6-9-10-11-12
Agricultural Engineering	503
Agronomy	501-5-6
Animal Husbandry	501
Biology	501
Dairy Husbandry	501-2
Economics	505
Engineering Research	501-2-3-4
Entomology	502-7
Genetics	501
Industrial Education	505-8-10
Marketing and Finance	501-2
Poultry Husbandry	501-2
Rural Education	501-5-7-9
Rural Sociology.	502-12

SECOND TERM

(July 18 to August 27)

AGRICULTURAL ECONOMICS

- 503S. Land Problems. (6-12) [3]
Daily 9:00. (Practice hours to be arranged).

AGRONOMY

- 314S. Field Crops. (9-6) [4]
Daily 7:30; TTh 1:30-4:30.
Laboratory fee, 50 cents.
- 502S. Advanced Farm Crops. (6-12) [3]
Daily 11:30. (Practice hours to be arranged).

ANIMAL HUSBANDRY

- 107S. General Animal Husbandry. (6-12) [3]
Daily 9:00; TTh 1:30-5:30. (Additional Practice
hours to be arranged).
- 409S. Animal Nutrition and Live Stock Feeding (9-6) [4]
Daily 10:00; MW 1:30-4:30.

BIOLOGY

- 102S. General Botany. (6-12) [3]
Daily 11:30; MWF 1:30-5:30.
Laboratory fee, 50 cents.
- 502S. Vegetable Morphology. (6-12) [3]
Daily 9:00. (Practice hours to be arranged).
Laboratory fee, \$2.00.

CHEMISTRY

- 102S. General Inorganic Chemistry. (9-9) [4]
Sec. 1. Daily 7:30; MWF 1:30-4:30.
Sec. 2. Daily 10:00; TTh 1:30-5:30. (Additional
practice hours to be arranged).
Laboratory fee, \$2.00.

CHEMICAL ENGINEERING

- 301S. Quantitative Analysis. (6-18) [5]
Daily 11:30 and 1-30-4:30.
Prerequisite: Chemical Engineering 202.

Laboratory fee, \$4.00.

(The cost of this course will be prorated among the students.)

CIVIL ENGINEERING

- 204S. Analytical Mechanics. (9-0) [3]
Prerequisite: Mathematics 203; to be accompanied by Mathematics 204.
Daily 10:00.
- 305S. Mechanics of Materials. (9-0) [3]
Prerequisite: Mathematics 204; Civil Engineering 204, or equivalent.
Daily 7:30.
- 311S. Hydraulics. (9-0) [3]
Prerequisite: Civil Engineering 204, or equivalent.
Daily 10:00.
- 340S. Elementary Structural Analysis. (9-0) [3]
Prerequisite: Civil Engineering 305.
Daily 7:30.
- 342S. Structural Drafting. (0-12) [1]
Prerequisite: Civil Engineering 340, or registration in that course.
MWF 1:30-5:30.

ECONOMICS

- 204S. Principles of Economics. (9-0) [3]
Daily 10:00.
- 403S. Principles of Economics. (9-0) [3]
Daily 7:30.

ELECTRICAL ENGINEERING

- 302S. Alternating Currents. (15-6) [6]
Prerequisite: Electrical Engineering 301, Mathematics 204. Must be accompanied by Electrical Engineering 302.
Daily 7:30 and 11:30; TTh 1:30-4:30.
- 304S. Alternating Current Laboratory. (3-12) [2]
Prerequisite: Electrical Engineering 301, Mathematics 204. Must be accompanied by Electrical Engineering 302.
MWF 9:00; MWF 1:30-5:30.
Laboratory fee, \$1.50.

ENGLISH

- 104S. Rhetoric and Composition. (9-0) [3]
Daily 7:30.
- 210S. Argumentation (6-0) [2]
Prerequisite: English 203 or 231.
Daily 9:00.
- 232S. English Literature. (9-0) [3]
Prerequisite: English 103, 104.
Daily 7:30.
- 316S. English Literature of the Eighteenth
Century. (6-0) [2]
Prerequisite: English 231, 232, or 203, 210.
Daily 11:30.
- 401S. Public Speaking. (6-0) [2]
Prerequisite: English 203, 210, or 231, 232.
Daily 11:30.
- 416S. Contemporary English Drama. (6-0) [2]
Prerequisite: English 231, 232, or 203, 210.
Daily 9:00.

GENETICS

- 405S. Survey of Eugenics. (9-0) [3]
Daily 10:00.
- 502S. Advanced Plant Genetics. (6-12) [3]
Daily 9:00. (Practice hours to be arranged).
- 504S. Advanced Animal Genetics. (6-12) [3]
Daily 11:30. (Practice hours to be arranged).

HISTORY

- 104S. The Development of Modern Europe. (9-0) [3]
Daily 10:00.
- 305S. Citizenship. (9-0) [3]
Daily 7:30.

HORTICULTURE

- 202S. Vegetable Gardening. (6-6) [3]
Daily 9:00; TTh 1:30-4:30.
Laboratory fee, 75 cents.
- 317S. Principles of Fruit Production. (6-9) [3]
Prerequisite: Horticulture 201.
MTWF 10:00; MWF 1:30-4:30.
Laboratory fee, \$1.00.
- 425S. History and Literature of Horticulture. (6-0) [2]
Daily 11:30.

- 501S. Advanced Fruit Growing. (6-12) [3]
Prerequisite: Horticulture 317, 318, or equivalent.
Daily 11:30. (Practice hours to be arranged.)
- 507S. Horticultural Problems. (3-18) [3]
Daily except S., 7:30. (Practice hours to be arranged.)

INDUSTRIAL EDUCATION

- 310aS. Course Making. (9-0) [3]
Daily 7:30.
- 312S. Psychology Applied to Industry. (9-0) [3]
Daily 10:00.
- 409S. Methods of Introducing Industrial Organization
and Management into Industrial Schools. (6-0) [2]
Daily 11:30.
- 411S. Lesson Planning. (6-0) [2]
Daily 9:00.
- 507S. Organization and Management in Industrial
Education. (12-0) [4]
Daily 10:00: (Additional hours to be arranged).
- 511S. Industrial Education Problems. (12-0) [4]
Daily 7:30. (Additional hours to be arranged).

MARKETING AND FINANCE

- 401S. Cooperative Marketing of Farm Products. (9-0) [3]
Prerequisite: Marketing and Finance 302, or Agricultural
Economics 312.
Daily 10:00.
- 502S. Advanced Marketing Problems. (6-12) [3]
Prerequisite: Agricultural Economics 312 and Market-
ing and Finance 302.
Daily 11:30. (Practice hours to be arranged).

MATHEMATICS

- 102S. Algebra. (9-0) [3]
Sec. 1. Daily 7:30.
Sec. 2. Daily 10:00.
- 104S. Analytics. (9-0) [3]
Prerequisite: Mathematics 101, 103, or 111.
Daily 10:00.
- 204S. Calculus. (15-0) [5]
Prerequisite: Mathematics 104 or 112.
Sec. 7. Daily 7:30 and 11:30.
Sec. 2. Daily 7:30 and 11:30.
- 305S. Differential Equations. (6-0) [2]
Prerequisite: Mathematics 204.
Daily 9:00.

MECHANICAL ENGINEERING

102S.	Engineering Problems. TThS 11:30; TTh 1:30-4:30.	(3-6)	[1]
309S.	Machine Shop. Daily 10:00. Laboratory fee, \$1.50.	(0-9)	[1]
310S.	Machine Shop. Daily 10:00. Laboratory fee, \$1.50.	(0-9)	[1]
313S.	Engineering Mechanics. Daily 10:00.	(9-0)	[3]
320S.	Thermodynamics. Prerequisite: Mathematics 204, Physics 204. Daily 7:30 and 11:30.	(15-0)	[5]

PHYSICS

202S.	College Physics. Daily 7:30; TTh 1:30-4:30. Laboratory fee, 50 cents.	(9-6)	[4]
204S.	General Physics. Prerequisite: Mathematics 112. Daily 10:00; MWF 1:30-4:30. Laboratory fee, \$1.00.	(9-9)	[4]

POULTRY HUSBANDRY

302S.	Feeding and Brooding. Prerequisite: Poultry Husbandry 201. Daily 7:30; TTh 1:30-4:30.	(9-6)	[4]
304S.	Poultry Essentials. Daily 11:30; MW 1:30-4:30:	(6-6)	[2]
504S.	Advanced Incubation and Brooding. Daily 9:00. (Practice hours to be arranged). Laboratory fee, \$1.00.	(6-12)	[3]

RURAL EDUCATION

122S.	Elementary School Methods. MWF 9:00 and daily 11:30.	(9-0)	[3]
322S.	Secondary School Administration. Sec. 1. Daily 7:30. Sec. 2. Daily 10:00.	(9-0)	[3]
422S.	History of Education. Daily 10:00.	(9-0)	[3]

502S. Problems in Rural School Administration.	(12-0)	[4]
Daily 10:00. (Additional hours to be arranged).		
504S. Development of Public School Education in Texas.	(12-0)	[4]
Daily 9:00 and 11:30.		
506S. Principles of Educational Administration.	(12-0)	[4]
Daily 7:30. (Additional hours to be arranged)..		
510S. Child Accounting.	(6-0)	[2]
Daily 9:00.		

VETERINARY MEDICINE AND SURGERY

372S. Clinics.	(0-36)	[4]
Hours to be arranged.		
Laboratory fee, \$2.00.		
472S. Clinics.	(0-21)	[2]
Hours to be arranged.		
Laboratory fee, \$2.00.		

GRADUATE COURSES

The following graduate courses will be given during the second term of the Summer Session.

Department	Courses
Agricultural Economics	503
Animal Husbandry.	502
Biology	502
Genetics	502-4
Horticulture	501-7
Industrial Education	507-11
Marketing and Finance	502
Poultry Husbandry	504
Rural Education	501-2-4-6-10

THE SUMMER SCHOOL OF COTTON**(June 7 to July 16)**

The object of the School of Cotton is to prepare young men for cotton buying and the managing of cotton warehouses; to offer to farmers the opportunity of increasing their knowledge of the leading farm product of Texas; and to prepare experienced cotton buyers for the Federal cotton examination.

A study is made of the elements which determine the commercial grades of cotton; the influence which affects the price of cotton; the system of financing the crop from the field to factory and the relation of exchanges to the business in general. Each class is furnished with new samples for practice and the work is patterned after that of a cotton office. The samples used in the Summer School are obtained from cotton states west of the Mississippi River and an effort is made to familiarize the student with the different characteristics of cotton grown in the southwest .

Special attention will be paid to the staple of cotton, and experts in this branch will give instruction in this subject. Many samples of various lengths of staple will be provided for students taking up this line of work.

The government standards for classing cotton, which have been adopted by all the exchanges, will be used.

Special emphasis is being given to the preparation of men who have four years or more of responsible cotton experience, for the Federal examination for Federal license to class cotton which is being required by some organizations. Responsible experience is interpreted to mean that cotton classed by the candidate has been bought or sold on his own classification.

For announcement giving complete details relative to the work of this division, write to Professor J. B. Bagley, College Station, Texas.

NINTH ANNUAL CONFERENCE OF COUNTY SUPERINTENDENTS AND RURAL SCHOOL SUPERVISORS
(July 25 to 30)

The Texas Agricultural and Mechanical College is endeavoring to make a contribution toward the upbuilding of the Texas rural schools. Consequently the County Superintendents and Rural School Supervisors are invited to take advantage of the low railroad rates and inexpensive boarding and lodging rates, to spend the week at the College in making an intensive study of their work. A printed program of the Ninth Conference will be sent to each County Superintendent and Supervisor. This Conference is held each year under the direction of the Department of Rural Education, Texas Agricultural and Mechanical College.

SHORT COURSES FOR TEACHERS OF VOCATIONAL AGRICULTURE

(June 7 to 25 and June 27 to July 16)

Two three weeks' graduate courses for teachers of vocational agriculture will be offered this summer. The first half of practically all advanced courses listed in Agriculture and in Agricultural Education will be given during the first three weeks—June 7 to 25. Teachers who have credit for the first half of any of these courses should arrange to attend the summer school during the second three weeks—June 27 to July 16. A number of short (2 hour) unit courses are available. No short term student is permitted to register for more than four semester hours.

SHORT COURSE FOR GRADUATE VETERINARIANS

(Tentative date, June 7 to 10)

This course is planned to provide opportunities for veterinarians to become more familiar with problems which their particular line of work or kind of practice up to this time, has not presented.

Some of the newer and more dependable methods of diagnosis will be considered.

CHARACTER OF WORK

Lectures, practice periods, laboratory work, and clinics will be offered in diseases of poultry, small animals, sheep, horses, and cattle. Special consideration will be given to diseases of the reproductive organs of cattle, livestock sanitation, and meat and milk inspection.

ENTERTAINMENT

The evenings will be used for round table discussion, moving pictures, and entertainments.

EXPENSES

No tuition will be charged. Rooms may be had (for men only) in Alpha Hall at \$1.00 a day. Rooms and meals may be had at the Aggieland Inn at reasonable rates.

Good facilities for camping will be provided near the Campus. Well equipped Tourist Camps are located between College and Bryan on a macadam road.

The State Veterinary Medical Association of Texas will hold its twenty-second annual meeting at College Station during the week of the Short Course.

COTTONSEED OIL MILL OPERATORS' COURSE**(June 15 to 20)**

As the Department of Chemistry and Chemical Engineering of the A. and M. College of Texas has a complete cotton seed oil mill and refining equipment for use in connection with the instructional work it is thought advisable to again offer a summer short course for cottonseed oil mill operators and others interested.

The complete mill was presented to the College by the Texas Cotton Seed Crushers' Association and they are very anxious in every way to co-operate with the College in making the summer short course a success.

The course is designed primarily for men who have had some experience in oil mill operation and wish to supplement their practical knowledge with a better understanding of the theory involved. The theory will not be presented in a highly technical form, and will be amply illustrated by demonstrations, and by tests, some of which the students themselves will make in the laboratory. The student will study the operation of all the machinery and make a chemical examination of the crude material and finished products. The class rooms, laboratories, and equipment of the Department of Chemistry and Chemical Engineering will be used in giving the course.

A more detailed announcement will be issued about May 1st, and may be obtained by addressing Dr. C. C. Hedges, College Station, Texas.



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