

CALENDAR—1931

FIRST TERM

- June 8—Monday, Registration in the College Division and in the Summer School of Cotton.
- June 8-27—Three Weeks' Course for Vocational Agriculture Teachers.
- June 9—Tuesday, Class work begins.
- June 10—Wednesday, last day for registration for credit during the first term.
- June 15-24—Course for Cotton Oil Mill operators.
- July 18—Term Examinations; Registration for second term.
- July 18—Saturday, close of first term.

SECOND TERM

- July 20—Monday, Registration of new students.
- July 21—Tuesday, classes for second term begin.
- July 22—Wednesday, last day for registration for credit during the second term.
- July 25—August 23—Industrial Education Tour.
- July 27—August 1—Farmers Short Course.
Eighth annual conference of County Superintendents and Rural School Supervisors.
- August 29—Term Examinations; Close of Summer Session.

AGRICULTURAL and MECHANICAL COLLEGE OF TEXAS

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

SUMMER SESSION, 1931

EXECUTIVE COMMITTEE OF THE SUMMER SESSION

C. H. WINKLER, B.S., A.M., Ph.D., *Dean of the School of Vocational Teaching,
Director of the Summer Session.*

CHARLES PURYEAR, M.A., C.E., LL.D., *Dean of the College, Dean of the
Graduate School.*

EDWIN JACKSON KYLE, B.S., B.S.A., M.S.A., *Dean of the School of Agriculture.*

M. FRANCIS, D.V.M., LL.D., *Dean of the School of Veterinary Medicine.*

F. C. BOLTON, B.S., M.S., *Dean of the School of Engineering.*

CHARLES E. FRILEY, B.S., M.A., LL.D., *Dean of the School of Arts and
Sciences. Registrar.*

OFFICERS OF ADMINISTRATION

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

CHARLES PURYEAR, M.A., C.E., LL.D., *Dean of the College.*

C. H. WINKLER, B.S., A.M., Ph.D., *Director of Summer Session.*

J. B. BAGLEY, B.A., *In Charge Summer School of Cotton.*

W. H. HOLZMANN, *Comptroller of Accounts.*

E. J. HOWELL, B.S., *Assistant Registrar; Acting Director, Second Term.*

J. E. MARSH, B.A., M.D., *College Physician.*

M. L. CASHION, A.B., *Y M. C. A. Secretary.*

T. F. MAYO, B.S., M.A., *Librarian.*

D. B. MARBURGER, B.S., *Superintendent Buildings and College Utilities.*

W. A. DUNCAN, *Supervisor of Subsistence.*

J. E. MITCHELL, B.S., *Assistant Commandant.*

FACULTY OF THE SUMMER SESSION

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

CHARLES PURYEAR, M. A., LL. D., *Dean of the College*

C. H. WINKLER, Ph. D., *Director*

ABBOTT, J. P., B. A., *Assistant Professor of English.*

ADAMS, I. G., A. M., *Assistant Professor of Economics.*

ADRIANCE, G. W., Ph. D., *Professor of Horticulture.*

ALEXANDER, E. R., M. S., *Professor of Agricultural Education.*

BAGLEY, J. B., B. A., *Professor of Textile Engineering, Director of the Summer School of Cotton.*

BALL, O. M., Ph. D., *Professor of Biology.*

BARGER, J. W., M. A., *Professor of Economics.*

BEACH, K. A., M. S., *Assistant Professor of Horticulture.*

BERRY, R. O., B. S., *Professor of Biology, Blinn College.*

BILSING, S. W., Ph. D., *Professor of Entomology.*

BINNEY, J. H., M. A., *Assistant Professor of Mathematics.*

BOLTON, F. C., M. S., *Dean of School of Engineering, Professor of Electrical Engineering.*

BRAYTON, H. R., M. S., *Professor of Inorganic Chemistry.*

BREWER, A. V., M. E., *Professor of Mechanical Engineering.*

BUCK, J. P., M. S., *Superintendent of Schools, Sour Lake.*

BURT, F. A., M. S., *Associate Professor of Geology.*

CLARK, F. B., Ph. D., *Professor of Economics.*

COFER, D. B., M. A., *Professor of English.*

CRAIG, J. N., *Instructor, Summer School of Cotton.*

CRAWFORD, C. W., M. S., *Professor of Mechanical Engineering.*

DARNELL, A. L., M. A., *Professor of Dairy Husbandry.*

DARROW, W. H., B. S., *Editor of Extension Publications.*

DENT, J. B., B. S., *Instructor in Engineering Drawing.*

DOWNARD, R. W., *Instructor in Mechanical Engineering.*

DUNN, R. C., D. V. M., *Professor of Veterinary Medicine and Surgery.*

DYKES, J. C., B. S., *Professor of Agricultural Education.*

FAIRES, V. M., M. E., *Professor of Mechanical Engineering.*

FERN, G. H., B. S., *Associate Professor of Industrial Education.*

FOTHEBGILL, MRS. CHAS. S., *Rural School Supervisor, McLennan County.*

FOURAKER, L. L., M. S., *Associate Professor of Electrical Engineering.*

FOX, L. W., B. S., *Director of Vocational Education, San Antonio Schools.*

FRANK, M. P., B. S., *Instructor in Civil Engineering.*

GAMMON, S. R., JR., Ph. D., *Professor of History.*

GIESECKE, F. E., Ph. D., *Professor of Research Engineering.*

GODBNEY, C. B., M. S., *Associate Professor of Genetics.*

GRINTER, L. F., Ph. D., *Professor of Civil Engineering.*

HALPERIN, H., A. M., *Professor of Mathematics.*

HEDGES, C. C., Ph. D., *Professor of Chemistry and Chemical Engineering.*

HENSEL, F. W., JR., M. S., *Professor of Landscape Art.*

- HILL, J. H., *Professor of History, Marshall College.*
HORLACHER, W. R., Ph. D., *Professor of Genetics.*
HOWELL, E. J., B. S., *Assistant Registrar; Acting Director, Second Term.*
HUGHES, W. L., M. S., *Professor of Rural Education.*
HUMBERT, E. P., Ph. D., *Professor of Genetics.*
HUNT, R. L., M. S., *Assistant Professor of Marketing and Finance.*
JONES, B. C., M. S., *Assistant Professor of Chemistry.*
JONES, D. C., B. A., *Professor of Mathematics.*
JONES, L. G., Ph. D., *Professor of Agronomy.*
KNOX, J. H., M. S., *Associate Professor of Animal Husbandry.*
KOENIG, L. A., B. A., *Assistant Professor of Chemistry.*
KYLE, E. J., M. S. A., *Dean of School of Agriculture, Professor of Horticulture.*
LANGFORD, E., M. S., *Professor of Architecture.*
LEE, V. P., Ph. D., *Professor of Marketing and Finance.*
LELAND, T. W., C. P. A., *Professor of Accounting and Statistics.*
LENNERT, A. A., D. V. M., *Associate Professor of Veterinary Medicine.*
LITTLE, V. A., M. S., *Associate Professor of Entomology.*
LUKER, C., B. S., *Teacher of Vocational Agriculture, Bryan High School.*
MCNEW, J. T. L., C. E., *Professor of Highway Engineering.*
MACKAY, A. K., M. S., *Professor of Animal Husbandry.*
MARSTELLER, R. P., D. V. M., *Professor of Veterinary Medicine and Surgery.*
MARTIN, A. D., B. A., *Associate Professor of Mathematics.*
MITCHELL, A., B. C. E., *Professor of Engineering Drawing.*
MITCHELL, J. W., A. B., *Professor of Mathematics.*
MORGAN, J. O., Ph. D., *Professor of Agronomy.*
MUNSON, T. A., M. S., *Professor of Hydraulic Engineering.*
MUNNERLYN, W. F., M. S., *Assistant Professor of Poultry Husbandry.*
PALMER, C. C., B. S., *Instructor in Electrical Engineering.*
PAULSON, W. E., Ph. D., *Marketing Research Specialist.*
PORTER, W. L., M. S., *Professor of Mathematics.*
POWERS, J. G., *Assistant Professor of Textile Engineering.*
REEVES, R. G., Ph. D., *Professor of Biology.*
REID, D. H., M. S., *Professor of Poultry Husbandry.*
RICHEY, J. J., C. E., *Professor of Civil Engineering.*
ROBERTS, G. B., A. M., *Instructor in Modern Languages.*
RODE, N. F., M. S., *Professor of Electrical Engineering.*
RUSSELL, D., A. B., *Professor of Rural Sociology.*
SCOATES, D., A. E., *Professor of Agricultural Engineering.*
SHEPARDSON, C. N., M. S., *Professor of Dairying.*
SILVEY, O. W., Ph. D., *Professor of Physics.*
SMITH, R. F., *Professor of Mathematics.*
SNUGGS, R. E., M. S., *Instructor in Chemistry.*
SPRIGGS, O. S., M. A., *Professor of Public Speaking.*
STEWART, R. T., Ph. D., *Professor of Agronomy.*
SUGAREFF, V. K., A. M., *Professor of History.*
SUMMEY, GEO., JR., Ph. D., *Professor of English.*

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- TAYLOR, J. R., *Instructor, Summer School of Cotton.*
THURMOND, M. F., M. A., *Associate Professor of Agricultural Engineering.*
VEZEY, E. E., M. S., *Associate Professor of Physics.*
WARD, R. P., B. S., *Assistant Professor of Electrical Engineering.*
WHARTON, A. E., D. V. M., *Associate Professor of Veterinary Pathology.*
WILCOX, G. B., A. M., *Professor of Rural Education.*
WILLIAMS, D. W., M. S., *Professor of Animal Husbandry.*
WILLIAMS, E. L., M. S., *Professor of Industrial Education.*
WILSON, MISS E. E., *Rural School Supervisor, McLennan County.*
WOOLKET, J. J., M. A., *Associate Professor of Modern Languages.*

ORGANIZATION

The work of the 1931 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 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 \$55.00. 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 (\$48.00 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, stationery and general supplies needed by students.

PUBLIC LECTURES

Lectures on educational, sociological, and agricultural subjects will be given by the members of the teaching staff and by other educators of state and national reputation.

On each Sunday morning a regular Bible school will be conducted at the College, and religious services will be held in the College Chapel by visiting ministers.

ENTERTAINMENT AND RECREATION

Two motion picture shows will be given each week. The Y. M. C. A. building will be open all summer. The large swimming pool in the basement of the "Y" building will be available for the use of the summer session students. An instructor in physical education will give lessons in swimming to those who desire them. Outdoor sports will be encouraged. The summer

session is a member of a small baseball league and games are played with local teams.

The Bryan Country Club has one of the finest, fully equipped playgrounds in Central Texas. Located midway between College and Bryan, it affords opportunity for all outdoor sports, including golf, boating and swimming. A special rate of \$11.00 is granted to summer students of the College.

The College Heights Golf Course is located about one mile south of the campus. Special rates are given to students.

EXPENSES

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

Matriculation fee, per term	\$ 5.00
Medical Service, payable once only	2.50*
Board per term of six weeks	48.00
Room rent per term of six weeks	7.00
Laundry Service (optional) per term	4.50

(All fees are payable at time of registration.)

*This fee is optional for "day students" and all students registered for less than a full term of six weeks.

In addition to these general expenses certain courses require a laboratory fee. Such fees are indicated in the list of courses.

A key deposit of \$1.00 will be required of all students who room in the dormitories. Students who do not room in the dormitories will not be required to pay the medical fee.

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 relative 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 202, to obtain Registration Cards.

THE COLLEGE

(June 8 to August 29)

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 terms of six weeks each. The first term will begin June 8 and will end July 18. The second term will begin July 20 and will end August 29.

The maximum amount of work a student may carry in a six weeks' term is the equivalent of seven term 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 such men may carry the equivalent of eight term 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 student 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.

FIRST TERM

(June 8 to July 18)

ACCOUNTING AND STATISTICS

- 201S. Principles of Accounting (4-8) [3]
 M., T., Th., F., 11:30 and 3:30-5:25.
 Laboratory fee, 50 cents.
- 202S. Principles of Accounting. (4-8) [3]
 M., T., Th., F., 9:30 and 2:30-4:25.
 Laboratory fee, 50 cents.

AGRICULTURAL EDUCATION

- 501S, 502S. Advanced Methods in Agricultural Education. (6-4) [4]
 Daily 7:30.
 Conference hours to be arranged.
- 503S. Evening Schools (6-4) [4]
 An advanced course in methods of organizing and conducting evening schools in vocational agriculture.
 Daily 10:30.
 Conference hours to be arranged.
- 504S. Teaching Co-operative Marketing (4-0) [2]
 An advanced course in methods of teaching co-operative

marketing. Open to teachers and county agents who have had a course in co-operative marketing.

M., T., Th., F., 11:30.

505S, 506S. Administration and Supervision of Agricultural Education. (6-4) [4]
Daily 10:30.

Conference hours to be arranged.

507S. Future Farmer Activities. (4-0) [2]
M., T., Th., F., 11:30.

508S. Promotional Activities in Vocational Agriculture. (4-0) [2]
An advanced course covering the principles of news writing, plans for collective exhibits, instructional booths, Fairs and contests. Open only to teachers of vocational agriculture.
M., T., Th., F., 8:30.

AGRICULTURAL ENGINEERING

421S. Advanced Farm Shop. (4-8) [3]
M., T., Th., F., 10:30 and 2:30-4:25.
Laboratory fee, \$1.50.

424S. Terracing (0-8) [1]
Sec. 1. M., W., 1:30-5:25.
Sec. 2. T., Th., 1:30-5:25.
Laboratory fee, 50 cents.

503S. Advanced Farm Machinery. (4-8) [3]
M., T., Th., F., 9:30.
Practice hours to be arranged.

AGRONOMY

301S. Soils. (6-4) [4]
Prerequisite: Chemistry 101, 102.
Daily 7:30; T., Th., 2:30-4:25.
Laboratory fee, 50 cents.

413S. Soil and Crop Problems. (6-0) [3]
Prerequisite: Agronomy 301.
Daily 9:30.

501S. Advanced Farm Crops. (4-8) [4]
M., T., Th., F., 8:30.
Conference hours to be arranged.

505S. Advanced Soils. (4-8) [3]
M., T., Th., F., 8:30.
Laboratory hours to be arranged.

- 508S. Advanced Cotton Production. (4-8) [3]
 M., T., Th., F., 11:30.
 Laboratory hours to be arranged.

ANIMAL HUSBANDRY

- 403S. Advanced Judging. (0-12) [2]
 This course will be handled primarily for those training live stock judging teams.
 Prerequisite: Animal Husbandry 202.
 M., W., F., 1:30-5:25.
- 416S. Live Stock Management. (6-4) [4]
 Prerequisite: Animal Husbandry 409.
 Daily 9:30; T., Th., 1:30-3:25.
- 423S. Seminar. (4-0) [2]
 An opportunity will be given in this course for a thorough discussion of the problems met in selecting, feeding, fitting and showing project live stock.
 Prerequisite: Animal Husbandry 303, Genetics 301.
 Genetics 301.
- 501S. Advanced Animal Nutrition. (4-8) [4]
 M., T., Th., F., 9:30.
 Conference hours to be arranged.
- 505S. Advanced Live Stock Production. (6-4) [4]
 Daily 7:30.
 Conference hours to be arranged.

ARCHITECTURE

- 101S. Architectural Drawing. (0-6) [1]
 T., Th., 1:30-4:25.
- 207S. History of Architecture. (4-0) [2]
 M., T., Th., F., 11:30.
- 300S. Working Drawings. (Sophomores)
 Hours to be arranged.
- 400S. Working Drawings. (Juniors)
 Hours to be arranged.

BIOLOGY

- 101S. General Botany. (4-8) [3]
 M., T., Th., F., 8:30; T., Th., 1:30-5:25.
 Laboratory fee, 50 cents.
- 207S. General Zoology. (4-8) [3]
 M., T., Th., F., 9:30; W., F., 1:30-5:25.
 Laboratory fee, \$100.

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- 206S. Bacteriology. (2-8) [2]
 Prerequisite: Biology 101, 102.
 W., F., 11:30; T., Th., 1:30-5:25.
 Laboratory fee, \$1.50.
- 501S. Advanced Vegetable Morphology. (4-8) [3]
 M., T., Th., F., 8:30.
 Laboratory hours to be arranged.
 Laboratory fee, \$2.00.
- 513S. Advanced Plant Disease. (4-8) [3]
 M., T., Th., F., 9:30.
 Laboratory hours to be arranged.
 Laboratory fee, \$2.00.

CHEMISTRY

- 101S. General Inorganic Chemistry. (6-6) [4]
 Sec. 1. Daily 9:30; M., W., 1:30-4:25.
 Sec. 2. Daily 11:30; T., Th., 1:30-4:25.
 Laboratory fee, \$2.00.
- 102S. General Inorganic Chemistry. (6-6) [4]
 Sec. 1. Daily 7:30; M., W., 1:30-4:25.
 Sec. 2. Daily 10:30; T., Th., 1:30-4:25.
 Laboratory fee, \$2.00.
- 212S. Agricultural Chemistry. (6-0) [3]
 Prerequisite: Chemistry 102.
 Daily 9:30.
- 214S. Agricultural Analysis. (2-6) [2]
 Prerequisite: Chemistry 102.
 T., Th., 11:30 and 2:30-4:25.
 Laboratory fee, \$3.00.

CIVIL ENGINEERING

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

DAIRY HUSBANDRY

- 202S. Dairying. (4-4) [3]
 M., T., Th., F., 7:30; W., F., 1:30-3:25.
 Laboratory fee, 75 cents.
- 303S. Dairy Cattle Judging. (0-8) [1]
 Prerequisite: Dairy Husbandry 202.
 T., Th., 1:30-5:25.

- 417S. History and Development of Dairy Cattle. (6-4) [4]
 Prerequisite: Genetics 301.
 Daily 9:30; W., F., 1:30-3:25.
 Laboratory fee, 75 cents.
- 501S. Advanced Dairy Production. (4-8) [4]
 M., T., Th., F., 10:30.
 Conference hours to be arranged.

DRAWING

- 103S. Descriptive Geometry. (6-0) [3]
 Daily 9:30.
- 111S. Mechanical Drawing. (0-12) [2]
 M., T., Th., F., 1:30-4:25.
- 124S. Descriptive Geometry. (4-8) [3]
 M., T., Th., F., 11:30 and 1:30-3:25.
- 201S. Mechanical Drawing. (0-4) [1]
 Prerequisite: Drawing 111.
 T., Th., 2:30-4:25.
- 202S. Mechanical Drawing. (0-4) [1]
 Prerequisite: Drawing 111.
 W., F., 2:30-4:25.

ECONOMICS

- 203S. Principles of Economics. (6-0) [3]
 Daily 9:30.
- 403S. Principles of Economics. (6-0) [3]
 Daily 7:30.
- 311S. Money and Banking. (6-0) [3]
 Daily 10:30.
 or
- 316S. Business Law. (6-0) [3]
 Daily 8:30.
- 501S, 502S. History of Economic Doctrines. (6-2) [4]
 Hours to be arranged.

ELECTRICAL ENGINEERING

- 202S. Elementary Electrical Engineering. (4-8) [3]
 Prerequisite: Electrical Engineering 201, Mathematics 104.
 M., T., Th., F., 8:30 and 2:30-4:25.
 Laboratory fee, 75 cents.

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- 204S. Electric Wiring and Repairing. (4-8) [3]
 Prerequisite: Electric Engineering 201.
 M., T., Th., F., 10:30 and 1:30-3:25.
 Laboratory fee, \$1.50.
- 307S. Electrical Machinery. (6-6) [4]
 Prerequisite: Physics 204, Mathematics 204.
 Daily 9:30; M., W., 1:30-4:25.
 Laboratory fee, \$1.00.
- 506S. General Electrical Engineering. (6-0) [3]
 Daily 8:30.

ENGINEERING RESEARCH

- 501S, 502S. Research. Credit 2 or 6 hours.
- 503S, 504S. Research. (2-8) [2]
 Hours to be arranged.

ENGLISH

- 103S. Rhetoric and Composition. (6-0) [3]
 Daily 9:30.
- 203S. Composition and Literature. (4-0) [2]
 Prerequisite: English 103, 104.
 Sec. 1. M., T., Th., F., 9:30.
 Sec. 2. M., T., Th., F., 8:30.
- 231S. English Literature. (6-0) [3]
 Prerequisite: English 103, 104.
 Daily 11:30.
- 315S. English Literature of the Seventeenth
 Century. (4-0) [2]
 Prerequisite: English 231, 232, or 203, 204.
 M., T., Th., F., 8:30.
- 401S. Public Speaking. (4-0) [2]
 Prerequisite: English 203, 210 or 231, 332.
 M., T., Th., F., 7:30.
- 413S. Contemporary Literature. (4-0) [2]
 Prerequisite: English 203, 210 or 231, 232.
 M., T., Th., F., 11:30.

ENTOMOLOGY

- 201S. General Entomology. (4-4) [3]
 M., T., Th., F., 8:30; T., Th., 1:30-3:25.
 Laboratory fee, 75 cents.

- 501S, 502S. Systematic Entomology. (4-8) [3]
 M., T., Th., F., 7:30.
 Laboratory fee, \$2.00 per course.
Laboratory hours to be arranged.
- 507S, 508S. Economic Entomology. (4-8) [3]
 M., T., Th., F., 11:30.
 Laboratory fee, \$2.00 per course.
Laboratory hours to be arranged.

GENETICS

- 301S. Genetics. (6-4) [4]
 Prerequisite: Biology 101, 102, 207.
 Daily 7:30; M., W., 2:30-4:25.
 Laboratory fee, \$1.00.
- 405S. Survey of Eugenics. (6-0) [3]
 Daily 8:30.
- 501S. Advanced Plant Genetics. (4-8) [4]
 M., T., Th., F., 8:30.
Conference hours to be arranged.
- 503S. Advanced Animal Genetics. (4-8) [3]
 M., T., Th., F., 7:30.
Laboratory hours to be arranged.
- 505S. Advanced Biometry. (4-8) [4]
 M., T., Th., F., 11:30.
Conference hours to be arranged.
- 507S. Genetic Studies in Cotton. (4-8) [3]
 M., T., Th., F., 10:30.
Laboratory hours to be arranged.

GEOLOGY

- 201S. General Geology. (6-4) [4]
 Prerequisite: Chemistry 102.
 Daily 8:30; Th., 1:30-5:25.
 Laboratory fee, \$1.50.
- 202S. Historical Geology (6-6) [4]
 Prerequisite: Geology 201.
 Daily 10:30; M., W., 1:30-4:25.
 Laboratory fee, \$2.00.

HISTORY

- 101S. The Development of Western Europe. (6-0) [3]
 Daily 10:30.
- 215S. History of the United States. (6-0) [3]
 Daily 9:30.

- 305S. Citizenship. (6-0) [3]
 Sec. 1. Daily 7:30.
 Sec. 2. Daily 11:30.

HORTICULTURE

- 201S. Plant Propagation and Orchardng. (4-4) [3]
 Prerequisite: Biology 101, 102.
 M., T., Th., F., 7:30; T., Th., 1:30-3:25.
 Laboratory fee, 75 cents.
- 418S. Nut Culture. (2-8) [2]
 Prerequisite: Horticulture 201.
 T., Th., 9:30; 1:30-5:25.
 Laboratory fee, \$1.50.
- 501S. Advanced Fruit Growing. (4-8) [3]
 Hours to be arranged.

INDUSTRIAL EDUCATION

- 102S. Theory and Principles of Vocational Education. (5-0) [2]
 Daily, except S., 8:30.
- 202S. Job Analysis. (4-4) [3]
 M., T., Th., F., 7:30; T., Th., 1:30-3:25.
- 308S. A Study of Modern Industries. (6-0) [3]
 Daily 10:30.
- 310S. Course Making. (4-0) [2]
 M., T., Th., F., 11:30.
- 406S. Vocational Guidance. (5-0) [2]
 Daily, except S., 8:30.
- 420S. Follow-up, Visitation, and Co-ordination in Part Time Schools. (4-0) [2]
 M., T., Th., F., 11:30.
- 505S. Philosophy of Industrial Education. (6-2) [4]
 Daily 11:30.
 Conference hours to be arranged.
- 507S. Organization and Management in Industrial Education. (6-2) [4]
 Daily 9:30.
 Conference hours to be arranged.
- 509S. Methods of Teaching Mechanical Drawing in the High School. (6-2) [4]
 Hours to be arranged.
- 511S. Problems. (6-2) [4]
 Hours to be arranged.

LANDSCAPE ART

- 301S. Introduction to Landscape Art. (4-8) [3]
M., T., Th., F., 8:30; W., F., 1:30-5:25.
- 301aS. Elementary Landscape Design. (4-8) [3]
M., T., Th., F., 11:30.
Laboratory hours to be arranged.
- 401S. Advanced Landscape Art. (6-16) [6]
Prerequisite: Landscape Art 301, 304.
Daily 10:30.
Practice hours to be arranged.

MARKETING AND FINANCE

- 302S. Marketing. (6-0) [3]
Prerequisite: Economics 203 and 204, or 403, or Agricultural Economics 312.
Daily 8:30.
- 501S. Advanced Marketing Problems. (4-8) [4]
Prerequisite: Agricultural Economics 312 and Marketing and Finance 302.
M., T., Th., F., 10:30.
Conference hours to be arranged.
- 504S. Cotton Marketing Problems. (4-8) [4]
Prerequisite: Marketing and Finance 502.
M., T., Th., F., 2:30-5:25.

MATHEMATICS

- 101S. Algebra. (6-0) [3]
Sec. 1. Daily 7:30.
Sec. 2. Daily 9:30.
- 102S. Algebra. (6-0) [3]
Daily 9:30.
- 103S. Plane Trigonometry. (6-0) [3]
Sec. 1. Daily 8:30.
Sec. 2. Daily 10:30.
- 104S. Analytics. (6-0) [3]
Prerequisite: Mathematics 101, 103.
Daily 10:30.
- 203S. Calculus. (12-0) [5]
Prerequisite: Mathematics 104.
Sec. 1. Daily 7:30 and 11:30.
Sec. 2. Daily 7:30 and 11:30.

- 204S. Calculus. (12-0) [5]
 Prerequisite: Mathematics 104.
 Daily 9:30 and 11:30.

MECHANICAL ENGINEERING

- 101S, 102S. Engineering Problems. (2-4) [1]
 T., Th., 8:30; W., F., 1:30-3:25.
- 212S. Engineering Mechanics. (6-0) [3]
 Prerequisite: Mathematics 203.
 Daily 10:30.
- 309S. Machine Shop. (0-6) [1]
 W., F., 1:30-4:25
 Laboratory fee, \$1.50.
- 310S. Machine Shop. (0-6) [1]
 T., Th., 1:30-4:25.
 Laboratory fee, \$1.50.
- 317S. Engineering Mechanics. (6-0) [3]
 Daily 10:30.

MODERN LANGUAGES

- 101S. Beginning French. (6-0) [3]
 Daily 8:30.
- 201S. Intermediate French. (6-0) [3]
 Daily 9:30.
- 205S. Intermediate Spanish. (6-0) [3]
 Daily 7:30.

PHYSICS

- 201S. College Physics. (6-4) [4]
 Daily 7:30; W., F., 1:30-3:25.
 Laboratory fee, 50 cents.
- 203S. General Physics. (6-6) [4]
 Prerequisite: Mathematics 101, 103.
 Daily 10:30; T., Th., 1:30-4:25.
 Laboratory fee, \$1.00.

POULTRY HUSBANDRY

- 201S. Farm Poultry. (4-4) [3]
 M., T., Th., F., 8:30; W., F., 1:30-4:25.
 Laboratory fee, 50 cents.
- 501S, 502S. Research Problems. (4-8) [3]
 M., T., Th., F., 11:30.
 Conference hours to be arranged.

- 503S. Advanced Incubation and Brooding. (4-8) [3]
 M., T., Th., F., 10:30.
 Laboratory fee, \$1.00.

RURAL EDUCATION

- 221S. Rural School Administration. (6-0) [3]
 Daily 9:30.
- 321S. Secondary School Methods. (6-0) [3]
 Sec. 1. Daily 7:30.
 Sec. 2. Daily 11:30.
- 423S. The Junior High School. (6-0) [3]
 Daily 9:30.
- 426S. Rural School Supervision. (6-6) [4]
 Daily 8:30 and 10:30.
- 505S. Principles of Educational Administration (6-2) [4]
 Daily 11:30.
 Conference hours to be arranged.
- 506S. Principles of Educational Administration. (6-2) [4]
 Daily 8:30.
 Conference hours to be arranged.

RURAL SOCIOLOGY

- 407S. Rural Sociology. (4-4) [3]
 M., T., Th., F., 8:30.
 Conference hours to be arranged.
- 501S. Advanced Rural Sociology. (6-2) [4]
 Daily 11:30.
 Conference hours to be arranged.
- 511S. History of Modern Social Thought. (6-2) [4]
 Daily 7:30.
 Conference hours to be arranged.

VETERINARY MEDICINE AND SURGERY

- 371S, 471S. Clinics.
 Laboratory fee, \$2.00 per course.
 Hours to be arranged.
- 455S. Diseases of Poultry. (4-0) [2]
 T., W., Th., F., 8:30.

VETERINARY PATHOLOGY

- 343S. Special Bacteriology. (4-8) [3]
 Prerequisite: Biology 209, or its equivalent.
 M., T., Th., F., 10:30; W., F., 1:30-3:25.
 Laboratory fee, \$4.00.

- 543S. Advanced Special Bacteriology.
Prerequisite: Biology 209, or its equivalent.
Hours to be arranged.
Laboratory fee, \$2.00.

GRADUATE COURSES

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 1931 Summer Session.

Department	Courses
Agricultural Education	501-2-3-4-5-6
Agricultural Engineering	503
Agronomy	501-5-8
Animal Husbandry	501-5
Biology	501-13
Dairy Husbandry	501
Economics	501-2
Electrical Engineering	506
Engineering Research	501-2-3-4
Entomology	501-2-7-8
Genetics	501-3-5-7
Horticulture	507
Industrial Education	505-7-9-11
Marketing and Finance	501-4
Poultry Husbandry	501-3
Rural Education	505-6
Rural Sociology	501-11
Veterinary Pathology	543

SECOND TERM

(July 20 to August 29)

AGRICULTURAL ECONOMICS

- 503S. Land Problems. (4-8) [3]
 M., T., Th., F., 11:30.
 Conference hours to be arranged.

AGRONOMY

- 308S. Forage Crops. (4-4) [3]
 M., T., Th., F., 7:30; 2:30-4:25.
 Laboratory fee, 50 cents.
- 314S. Field Crops. (6-4) [4]
 Daily 9:30; T., Th., 2:30-4:25.
 Laboratory fee, 50 cents.

ANIMAL HUSBANDRY

- 409S. Animal Nutrition and Live Stock
 Feeding. (6-4) [4]
 Daily 9:30; M., W., 2:30-4:25.
- 502S. Advanced Animal Nutrition. (4-8) [3]
 Hours to be arranged.

BIOLOGY

- 502S. General Botany. (4-8) [3]
 M., T., Th., F., 8:30 and 2:30-4:25.
 Laboratory fee, 50 cents.
- 502S. Vegetable Morphology. (4-8) [3]
 Hours to be arranged.
 Laboratory fee, \$2.00.
- 514S. Advanced Plant Disease. (4-8) [3]
 Hours to be arranged.
 Laboratory fee, \$2.00.

CHEMISTRY

- 102S. General Inorganic Chemistry. (6-6-) [4]
 Sec. 1. Daily 9:30; M., W., 1:30-4:25.
 Sec. 2. Daily 11:30; T., Th., 1:30-4:25.
 Laboratory fee, \$2.00.

CHEMICAL ENGINEERING

- 301S. Quantitative Analysis. (4-16) [5]
Prerequisite: Chemical Engineering 202.
M., T., Th., F., 10:30 and 1:30-5:25.
Laboratory fee, \$4.00.

CIVIL ENGINEERING

- 204S. Analytical Mechanics. (6-0) [3]
Prerequisite: Mathematics 203; to be accompanied
by Mathematics 204.
Daily 8:30.
- 305S. Mechanics of Materials. (6-0) [3]
Prerequisite: Mathematics 204; Civil Engineering
204; or equivalent.
Daily 9:30.
- 311S. Hydraulics. (6-0) [3]
Prerequisite: Civil Engineering 204.
Daily 7:30.
- 340S. Framed Structures. (6-0) [3]
Prerequisite: Civil Engineering 305.
Daily 8:30.
- 342S. Structural Drafting. (0-10) [1]
Prerequisite: Civil Engineering 340 or registration in
that course.
Daily except S., 10:30-12:30.

DRAWING

- 104S. Descriptive Geometry. (4-4) [3]
M., T., Th., F., 9:30; T., Th., 1:30-3:25.
- 111S. Mechanical Drawing. (0-12) [2]
M., T., Th., F., 1:30-4:25.
- 124S. Descriptive Geometry. (4-8) [3]
M., T., Th., F., 11:30 and 1:30-3:25.
- 201S. Mechanical Drawing. (0-4) [1]
Prerequisite: Drawing 111.
T., Th., 2:30-4:25.
- 202S. Mechanical Drawing. (0-4) [1]
Prerequisite: Drawing 111.
W., F., 2:30-4:25.

ECONOMICS

- 204S. Principles of Economics. (6-0) [3]
Daily 8:30.

- 403S. Principles of Economics. (6-0) [3]
Daily 10:30.

ELECTRICAL ENGINEERING

- 302S. Alternating Currents. (10-4) [6]
Prerequisite: Electrical Engineering 202, Mathematics 204. Must be accompanied by Electrical Engineering 304.
Daily 8:30 and 10:30; T., Th., 1:30-3:25.
- 304S. Alternating Current Laboratory. (2-8) [2]
Must be accompanied by Electrical Engineering 302.
W., F., 7:30; 1:30-5:25.
Laboratory fee, \$1.50.
- 305S. Electrical Machinery. (6-6) [4]
Prerequisite: Physics 204, Mathematics 204.
Daily 9:30; T., Th., 1:30-4:25.
Laboratory fee, \$1.00.
- 308S. Electrical Machinery. (6-6) [4]
Prerequisite: Physics 204, Mathematics 204.
Daily 11:30; W., F., 1:30-4:25.
Laboratory fee, \$1.00.

ENGLISH

- 104S. Rhetoric and Composition. (6-0) [3]
Daily 9:30.
- 210S. Argumentation. (4-0) [2]
Prerequisite: English 203 or 231.
M., T., Th., F., 9:30.
- 232S. English Literature. (6-0) [3]
Prerequisite: English 103, 104.
Daily 11:30.
- 316S. English Literature of the Eighteenth Century. (4-0) [2]
Prerequisite: English 231, 232, or 203, 204.
M., T., Th., F., 7:30.
- 401S. Public Speaking. (4-0) [2]
Prerequisite: English 203, 210 or 231, 232.
M., T., Th., F., 7:30.
- 414S. Contemporary Literature. (4-0) [2]
Prerequisite: English 413.
M., T., Th., F., 11:30.

GENETICS

- 405S. Survey of Eugenics. (6-0) [3]
 Daily 8:30.
- 502S. Advanced Plant Genetics. (4-8) [3]
 Hours to be arranged.
- 504S. Advanced Animal Genetics. (4-8) [3]
 Hours to be arranged.
- 506S. Advanced Biometry. (4-8) [3]
 Hours to be arranged.

HISTORY

- 102S. The Development of Western Europe. (6-0) [3]
 Daily 10:30.
- 216S. History of the United States. (6-0) [3]
 Daily 9:30.
- 305S. Citizenship. (6-0) [3]
 Sec. 1. Daily 7:30.
 Sec. 2. Daily 11:30.

HORTICULTURE

- 202S. Vegetable Gardening. (4-4) [3]
 M., T., Th., F., 7:30-9:25.
 Laboratory fee, 75 cents.
- 314S. Floriculture. (4-4) [3]
 Prerequisite: Horticulture 201
 T., Th., 8:30; W., F., 1:30-3:25.
 Laboratory fee, \$1.00.

INDUSTRIAL EDUCATION

- 500S. A Practical Study of the Relation of Industry
 to Education. [5]
 A tour of inspection and study of industries and industrial schools in the North Central States.
- 512S. Methods of Training Employed People in Commerce and Industry. (6-0) [3]
 Open to students taking Industrial Education 500.
 Daily 8:30-11:30, during first and sixth week of term.

MARKETING AND FINANCE

- 401S. Cooperative Marketing of Farm Products. (6-0) [3]
 Prerequisite: Marketing and Finance 302.
 Daily 8:30.
 M., T., Th., F., 10:30.

- 502S. Advanced Marketing Problems. (4-8) [4]
 Prerequisite: Agricultural Economics 312 and Market-
 ing and Finance 302.
 M., T., Th., F., 9:30.
 Conference hours to be arranged.

MATHEMATICS

- 102S. Algebra. (6-0) [3]
 Sec. 1. Daily 7:30.
 Sec. 2. Daily 9:30.
- 104S. Analytics. (6-0) [3]
 Prerequisite: Mathematics 101, 103.
 Sec. 1. Daily 8:30.
 Sec. 2. Daily 10:30.
- 204S. Calculus. (12-0) [5]
 Prerequisite: Mathematics 104.
 Sec. 1. Daily 9:30 and 11:30.
 Sec. 2. Daily 7:30 and 11:30.
- 305S. Differential Equations. (4-0) [2]
 Prerequisite: Mathematics 204.
 M., T., Th., F., 10:30.

MECHANICAL ENGINEERING

- 101S, 102S. Engineering Problems. (2-4) [1]
 T. Th., 8:30; W., F., 1:30-3:25.
- 313S. Engineering Mechanics. (6-0) [3]
 Daily 11:30.
 (M. E. 313S may be substituted for C. E. 331.)
- 320S. Thermodynamics. (10-0) [5]
 Prerequisite: Mathematics 204, Physics 204.
 Daily, except S., 7:30 and 9:30.
- 324S. Steam and Gas Power. (6 0) [3]
 Daily 11:30.

MODERN LANGUAGES

- 101S. Beginning French. (3-0) [3]
 Daily 8:30.
- 202S. Intermediate French. (3-0) [3]
 Daily 9:30.
- 206S. Intermediate Spanish. (3 0) [3]
 Daily 7:30.

PHYSICS

- 202S. College Physics. (6-4) [4]
 Daily 7:30; W., F., 1:30-3:25.
 Laboratory fee, 50 cents.

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- 204S. General Physics. (6-6) [4]
Prerequisite: Mathematics 101, 103.
Daily 10:30; T., Th., 1:30-4:25.
Laboratory fee, \$1.00.

POULTRY HUSBANDRY

- 302S. Feeding and Brooding. (6-4) [4]
Prerequisite: Poultry Husbandry 201.
Daily 7:30; T., Th., 2:30-4:25.
- 304S. Poultry Essentials. (4-4) [3]
M., T., Th., F., 9:30; M., W., 2:30-4:25.
- 502S. Research Problems. (4-8) [3]
M., T., Th., F., 11:30.
Conference hours to be arranged.

RURAL EDUCATION

- 222S. Rural School Administration. (6-0) [3]
Daily 7:30.
- 322S. Secondary School Administration. (6-0) [3]
Daily 8:30.
- 422S. History of Education. (6-0) [3]
Daily 11:30.
- 501S. Problems in Rural Education. (6-2) [4]
Daily 8:30.
Conference hours to be arranged.
- 502S. Problems in Rural School Administration. (6-2) [4]
Daily 11:30.
Conference hours to be arranged.
- 504S. Development of Public School Education
in Texas. (6-2) [4]
Daily 10:30.
Conference hours to be arranged.
- 506S. Principles of Educational Administration. (6-2) [4]
Daily 11:30.
Conference hours to be arranged.

VETERINARY MEDICINE AND SURGERY

- 372S, 472S. Clinics.
Laboratory fee, \$2.00 per course.
Hours to be arranged.

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	502-14
Genetics	502-4-6
Industrial Education	500-12
Marketing and Finance	502
Poultry Husbandry	502
Rural Education	501-2-4-6

THE SUMMER SCHOOL OF COTTON

(June 8 to July 18.)

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 or more years 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.

THREE-WEEK'S COURSE FOR TEACHERS OF VOCATIONAL AGRICULTURE

(June 8-27.)

In order to better serve the teacher of vocational agriculture who finds it impracticable to be away from his job six consecutive weeks a three weeks' short course has been established as a regular part of the Summer Session. The course is really a combination of the annual conference of teachers of vocational agriculture with graduate study. There will be daily conferences with members of the state supervisory staff dealing with questions concerning state policy and administration. A number of short unit courses, both graduate and undergraduate, will be available. Two half-courses, or a total of four term hours, will be the maximum college work that a short course student may carry in addition to his conference duties.

SHORT COURSE FOR GRADUATE VETERINARIANS

(Tentative date, June 1-5.)

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, live stock 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-first annual meeting at College Station during the week of the Short Course.

EIGHTH ANNUAL CONFERENCE OF COUNTY SUPERINTENDENTS AND RURAL SCHOOL SUPERVISORS

(July 27 to August 1.)

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 Eighth 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.

COTTONSEED OIL MILL OPERATORS' COURSE**(June 15-24.)**

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 classrooms, 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.