leck Copy.

Dorothy Marine .

4-11-1923.

## BULLETIN

### OF THE

## AGRICULTURAL AND MECHANICAL COLLEGE OF TEXAS

THIRD SERIES, VOL. 8.

JUNE 1, 1922.

No. 6.



## FORTY-SIXTH ANNUAL CATALOGUE

## SESSION 1921-22

**ANNOUNCEMENTS FOR 1922-23** 

Published monthly by the Agricultural and Mechanical College of Texas.

Entered as second class matter August 7, 1913, at the postoffice at College Station, Texas, under the Act of August 24, 1912.

## CONTENTS

## PART I

## OFFICERS OF ADMINISTRATION AND INSTRUCTION

UFFICERS OF ADMINISTRATION AND INSTRUCTION	
· Pa	ge
Board of Directors	11
Officers of Administration	12
Faculty of the College	13
Faculty of the School of Agriculture	22
Faculty of the School of Engineering	
Faculty of the School of Veterinary Medicine	<b>28</b>
Agricultural Experiment Station Staff	29
Engineering Experiment Station Staff	31
	32
	33
Other Officers	34

## PART II

## GENERAL INFORMATION

Location
Historical Sketch
Organization
Discipline
Military Organization 39
Reserve Officers' Training Corps
Method and Scope of Instruction
Health 48
Athletics
Religious and Moral Culture 48
Young Men's Christian Association
Library
Buildings
Equipment

## PART III

### ADMISSION, EXPENSES

meral Requirements	/3
e, Health, Character	3
ccination	3
holarship Requirements	5
ethods of Admission	6
lvanced Standing	9
gistration	60
ssion	30
penses	1
iform	3

## PART IV

### COURSES OF STUDY

	Page
List of Courses	. 87
Courses in the School of Agriculture	
Courses in the School of Engineering	. 92
Course in Veterinary Medicine	
Course in Science	. 99
Graduate Courses	. 100
Curricula	. 103
Description of Courses of Instruction by Departments.	. 141

## PART V

### RESEARCH, EXTENSION, SUMMER SESSION, AND OTHER ACTIVITIES

Agricultural Experiment Station	259
Feed Control Service	261
Engineering Experiment Station	<b>263</b>
Extension Service	265
Summer Session	267
Fertilizer Control Service	272
Office of State Entomologist	273
Office of State Forester	274

### PART VI

#### REGISTER

Register of Students	
Summary of Enrollment	
Degrees and Honors	
Military Organization	326
Alumni_Organization	
Index	331

, 

## CALENDAR

		1	922	2									192	23	·								1	92	4			
		J	UL	¥					JA	NU	ARY	1				J	UL	Y			JANUARY							
s	м	T	w	т	F	s	s	м	т	w	т	F	s	s	м	т	w	т	F	s	s	м	т	w	т	F	s	
	17	18	··5 12 19 26	20	21	22	 7 14 21 28 	22	23	24	4 11 18 25 	5 12 19 26	6 13 20 27	1 8 15 22 29	16 23 30	$\frac{17}{24}$	4 11 18 25	19	20	7 14 21 28 	 6 13 20 27 	21	22	16	<b>24</b>	18	5 12 19 26 	
		AU	GU	ST				F	ΈB	RU	AR	Y				AU	GU	ST				F	EB	RU	AR	r		
5	м	т	w	т	F	s	s	М	т	w	т	F	s	s	м	т	w	T	F	s	s	м	т	w	т	F	s	
		22	2 9 16 23 30	$\frac{17}{24}$			 4 11 18 25 	19		21	1 8 15 22	2 9 16 23	3 10 17 24	 5 12 19 26	6 13 20 27	··· 7 14 21 28 	1 8 15 22 29 	$\frac{16}{23}$	3 10 17 24 31	4 11 18 25 	 3 10 17 24 	18	· · 5 12 19 26 	20			2 9 16 23 	
	SE	<b>P</b> T	EM	BE	R				M	ARC	н				S	EP7	FEN	IBE	R				M.	ARC	CH			
s	м	т	w	т	F	s	s	м	т	w	т	F	s	s	м	т	w	т	F	s	s	м	т	w	т	F	s	
3 10 17 24	18	19		21	22	23	··· 4 11 18 25 ···	19	20	21	22	2 9 16 23 30	$\frac{24}{31}$	··· 9 16 23 30	$\frac{17}{24}$	18	··· 12 19 26 ···	<b>20</b>	21	1 8 15 22 29 	··· 9 16 23 30	$\frac{17}{24}$	25	19	20	 7 14 21 28 		
_		oc	TOI	BEF	2				A	PRI	L			[	C	CT	OB	ER					AI	RI	L			
8	м	T	w	т	F	s	8	м	т	w	т	F	s	s	м	T	w	т	F	s	s	м	Т	w	Т	F	s	
1 8 15 22 29	16	<b>24</b>	18	19		7 14 21 28 	1 8 15 22 29	23	3 10 17 24 	18	19	20	7 14 21 28 	··7 14 21 28	22	23	3 10 17 24 31 	4 11 18 25 	5 12 19 26	6 13 20 27 	6 13 20 27	21	22	23	3 10 17 24 	18	5 12 19 26 	
	N	IOV	ΈM	BE	R				1	AN.	r				1	NO	VEN	AB1	ER				1	MA	Y			
s	м	т	w	т	F	s	s	м	т	w	т	F	s	s	м	т	w	т	F	s	s	м	т	w	т	F	s	
5 12 19 26	 13 20 27	· · · 14 21 28 . · ·	1 8 15 22 29	$\frac{16}{23}$	24	18	20	$\mathbf{z}_{1}$	22	16 23	17	4 11 18 25 	19	18	19	$\frac{13}{20}$	14	22	$\frac{16}{23}$	$\frac{17}{24}$	18	19	$\frac{13}{20}$	14 21	1 8 15 22 29	2 9 16 23 30	$\frac{17}{24}$	
	D	EC	EM	BE	R				1	UN	E				I	DEC	EM	BE	R				J	UN	E			
s	м	т	w	т	F	s	s	м	T	w	T	F	s	s	м	T	w	т	F	s	s	м	T	w	Т	F	s	
 3 10 17 24 31	11 18 25	$\frac{12}{19}$	$\frac{13}{20}$	14 21	22	16 23	3 10 17 24	18	19	$\frac{13}{20}$	14 21 28	22	23	16	$\frac{17}{24}$	11 18 25	12 19	$\frac{13}{20}$	14 21	$     \begin{array}{c}       1 \\       8 \\       15 \\       22 \\       29 \\       \dots     \end{array} $			$\frac{17}{24}$	11 18	$\frac{12}{19}$	6 13 20 27 	14 21	

## **COLLEGE CALENDAR**

### 1922.

Entrance examinations, September 14, 15, 16.

First term begins Wednesday, September 20.

Registration of new students, September 18, 19.

Registration of old students, September 20, 21.

Recitations begin September 22, 8 a.m.

Opening exercises, September 22, 10 a.m.

November 11, observance of Victory Day.

Thanksgiving Day, a holiday.

Christmas holidays begin Thursday, December 21, at noon.

#### 1923.

Christmas holidays end Tuesday, January 2, at reveille.

Recitations resumed, Tuesday, January 2, 8 a.m.

First term ends Friday, February 2.

Second term begins Saturday, February 3.

Registration for second term, January 31, February 1, 2, 3.

Washington's Birthday, February 22, a holiday.

Observance of Texas Independence Day, March 2.

San Jacinto Day, April 21, a holiday.

Commencement sermon, Sunday, June 3.

Exhibition of departments and of work of Students, Monday, June 4. Commencement Day, Tuesday, June 5.

# PART I

• •

## OFFICERS OF ADMINISTRATION AND OF INSTRUCTION

## **BOARD OF DIRECTORS**

## L. J. HART, PRESIDENT. F. M. LAW, VICE-PRESIDENT.

## TERMS EXPIRE 1923

. . . . . . .

F. M. LAW	Houston.
T. N. JONES	Tyler.
JOHN T. DICKSON	Paris.

## **TERMS EXPIRE 1925**

L. J. HART	 San Antonio.
R. L. YOUNG	 Houston.
W. S. ROWLAND	 Temple.

## TERMS EXPIRE 1927

J.	M.	WA	GSTA	FF.		 		:	• • •		 	÷.	 	 ••	 		.A	bile	ne.
CH	AS.	Е.	MAR	$\mathrm{SH}.$	• • •	 	 			•••	 		 • •	 	 		A	lust	in.
MR	s.	J. C	. GEO	RGE	C	 	 				 		 	 	 	Bre	own	isvi	lle.

S. G. BAILEY, SECRETARY.

### OFFICERS OF ADMINISTRATION.

WILLIAM BENNETT BIZZELL, Ph. D., D. C. L., LL. D., President. CHARLES PURYEAR, M. A., C. E., LL. D., Dean of the College. B. YOUNGBLOOD, Ph. D., Director of the Agricultural Experiment Station. EDWIN JACKSON KYLE, M. S. A., Dean of the School of Agriculture. M. FRANCIS, D. V. M., Dean of the School of Veterinary Medicine. J. C. NAGLE, M. A., M. C. E., Dean of the School of Engineering. Director of the Engineering Experiment Station. MAJOR I. S. ASHBURN, Commandant. Director of Publicity. F. C. BOLTON, B. S., Director of Military Educational Activities. T. O. WALTON, Director of the Extension Service. CHARLES E. FRILEY, B. S., Registrar. THOMAS F. MAYO, M. A., Librarian. G. S. FRAPS, Ph. D., State Chemist. E. O. SIECKE, B. A., B. S., State Forester. M. C. TANQUARY, A. M., Ph. D., State Entomologist. R. B. EHLINGER, M. D., Surgeon. WALTER WIPPRECHT, B. S. A., Business Manager. W. W. KRAFT, B. S., Superintendent of Buildings and College Utilities. B. SBISA, Advisory Supervisor of Subsistence. W. A. DUNCAN, Supervisor of Subsistence.

## THE COLLEGE.

### FACULTY.

WILLIAM BENNETT BIZZELL, Ph. D., D. C. L., LL. D., President.

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

> CHARLES PURYEAR, M. A., C. E., LL. D., Professor of Mathematics.

M. FRANCIS, D. V. M., Dean of the School of Veterinary Medicine. Professor of Veterinary Anatomy.

E. J. KYLE, M. S. A.,

Dean of the School of Agriculture. Professor of Horticulture.

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

E. J. FERMIER, M. E., Professor of Mechanical Engineering.

> J. B. BAGLEY, B. A., Professor of Textile Engineering.

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

J. OSCAR MORGAN, M. S. A., Ph. D., Professor of Agronomy.

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

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

> MARTIN L. HAYES, B. S., A. M., Professor of Vocational Teaching.

C. B. CAMPBELL, Ph. D., Professor of Modern Languages.

R. P. MARSTELLER, D. V. M., Professor of Veterinary Medicine and Surgery.

> O. W. SILVEY, A. M., Ph. D., Professor of Physics.

### F. B. CLARK, M. A., Ph. D., Professor of Economics.

J. C. NAGLE, M. A., M. C. E., Dean of the School of Engineering. Professor of Civil Engineering.

E. O. SIECKE, B. A., B. S., Professor of Forestry.

S. W. BILSING, M. A., Professor of Entomology.

J. F. McDONALD, A. M., Professor of History.

E. B. LaROCHE, B. Arch., Professor of Architecture.

MAJOR I. S. ASHBURN, Commandant.

**D.** SCOATES, A. E., Professor of Agricultural Engineering.

P. K. WHELPTON, B. S., Professor of Farm Management.

LOUIS R. DOUGHERTY, Major, U. S. Army, Professor of Military Science and Tactics.

> G. S. TEMPLETON, B. S., Professor of Animal Husbandry.

> R. L. POU, M. S., Professor of Dairy Husbandry.

WM. E. GARNETT, M. A., Ph. D., Professor of Rural Sociology.

F. A. BUECHEL, Ph. M., Professor of Agricultural Economics, Head of the Course in Agricultural Administration.

> E. OSCAR RANDOLPH, M. A., D. Litt., Professor of Geology.

> > D. B. COFER, A. B., Acting Professor of English.

## **OTHER OFFICERS OF INSTRUCTION.**

H. E. SMITH, M. E., Professor of Steam Engineering.

J. J. RICHEY, C. E., Professor of Structural Engineering.

A. T. POTTS, M. S., Professor of Vegetable Gardening.

> R. F. SMITH, Professor of Mathematics.

O. B. WOOTEN, B. S., Professor of Applied Electricity.

M. K. THORNTON, B. S., A. M., Professor of Industrial Chemistry.

W. L. STANGEL, B. S., A. M., Professor of Animal Husbandry.

J. M. KELLOGG, M. Arch., Professor of Architecture.

D. W. WILLIAMS, M. S., Professor of Animal Husbandry.

W. H. H. MORRIS, Major, U. S. Army, Professor of Military Science and Tactics. (In charge of Infantry Unit).

> W. J. EMMONS, Sc. B., A. M., Professor of Highway Engineering.

L. A. KURTZ, Captain, U. S. Army, Professor of Military Science and Tactics. (In charge of Signal Corps Unit).

J. HORACE KRAFT, A. B., B. S., Professor of Agricultural Education.

C. W. RUSSELL, Major, U. S. Army, Professor of Military Science and Tactics. (In charge of Air Service Unit).

> G. A. GEIST, B. S., Professor of Free-hand Drawing.

B. D. MARBURGER, B. S., Professor of Railroad Engineering.

J. F. DAVIS, Major, U. S. Army, Professor of Military Science and Tactics. (In charge of Cavalry Unit).

#### E. P. HUMBERT, M. S., Ph. D., Professor of Genetics.

W. H. THOMAS, B. Litt., A. M., Associate Professor of English.

C. A. WOOD, M. S., · Associate Professor of Agronomy.

F. HENSEL, M. S., Associate Professor of Horticulture.

R. D. BRACKETT, A. B., Associate Professor of English.

H. R. BRAYTON, A. B., M. S., Associate Professor of Chemistry and Chemical Engineering.

C. W. BURCHARD, A. M., Associate Professor of Chemistry and Chemical Engineering.

> T. J. CONWAY, B. S., Associate Professor of Poultry Husbandry.

J. W. MITCHELL, B. A., Associate Professor of Mathematics.

N. S. BLACKBERG, D. V. M., Associate Professor of Veterinary Physiology and Pharmacology.

> A. A. LENERT, B. S., D. V. M., Associate Professor of Veterinary Medicine.

E. W. PRICE, D. V. M., Associate Professor of Veterinary Pathology.

BYRON BIRD, C. E., . Associate Professor of Civil Engineering.

J. A. CLUTTER, B. S., Associate Professor of Dairy Husbandry.

S. D. SNYDER, B. S., Associate Professor of Agricultural Engineering.

W. A. STONE, S. B., Associate Professor of Chemistry and Chemical Engineering.

> R. K. FLETCHER, M. A., Associate Professor of Entomology.

A. R. CAHN, M. S., Associate Professor of Biology. L. E. DOWD,

Associate Professor of Textile Engineering.

J. R. McKEE, Associate Professor (Federal Students).

D. S. BUCHANAN, B. S., Associate Professor of Animal Husbandry.

H. HALPERIN, E. E., A. M., Associate Professor of Mathematics.

J. H. STALLINGS, M. S., Associate Professor of Agronomy.

A. L. DARNELL, B. S., M. A., Associate Professor of Dairy Husbandry.

F. H. FISH, B. S., Associate Professor of Chemistry.

H. P. SMITH, B. S., Associate Professor of Agricultural Engineering.

L. V. MERCER, M. E., Associate Professor of Mechanical Engineering.

> H. N. JUNE, B. S. in Arch., Associate Professor of Architecture.

E. E. McQUILLEN, M. S., Associate Professor of Genetics.

J. B. STRAW, B. S., Associate Professor of Electrical Engineering.

> F. A. BURT, B. S., Associate Professor of Geology.

T. A. MUNSON, B. S., Associate Professor of Civil Engineering.

J. H. BROWN, Pg. B., B. M. T., Associate Professor of Vocational Teaching.

> D. J. PRATT, A. M., Associate Professor of Biology.

G. H. SECHRIST, B. S., Associate Professor of Electrical Engineering.

D. C. JONES, B. A., Assistant Professor of Mathematics.

P. G. GUNTER, M. A., Assistant Professor of English. H. F. PAGE, M. A., Assistant Professor of English.

F. E. LICHTE, B. S., Assistant Professor of Textile Engineering.

> W. L. PORTER, A. B., Assistant Professor of Mathematics.

ROBERT W. WILSON, Captain, U. S. Army, Assistant Professor of Military Science and Tactical Officer.

> D. B. MILNER, B. S., Assistant Professor of Drawing.

ALBERT L. TUTTLE, Captain, U. S. Army, Assistant Professor of Military Science and Tactics.

> E. E. VEZEY, B. S., Assistant Professor of Physics.

M. E. COX, B. S., Assistant Professor of Mathematics.

C. C. YATES, B. S., Assistant Professor of Electrical Engineering.

S. H. HICKMAN, Acting Assistant Professor of English.

FLEMING G. MOORE, B. S., Assistant Professor of Chemistry.

O. N., LACKEY, B. S., A. M., Assistant Professor of Physics.

F. J. de ROHAN, Captain, U. S. Army, Assistant Professor of Military Science and Tactics.

G. L. DICKEY, B. S., Assistant Professor of Agricultural Education.

W. C. HUTTON, Assistant Professor of Mechanical Engineering.

> G. W. ADRIANCE, M. S., Assistant Professor of Horticulture.

T. P. REMY, Assistant Professor of Entomology.

E. M. REGENBRECHT, B. S., Assistant Professor of Animal Husbandry.

> R. S. FOURAKER, B. S., Assistant Professor in Drawing.

HOWARD BURT, A. B., Assistant Professor of Biology. E. W. MARKLE, B. S., Assistant Professor of Electrical Engineering.

> A. D. MARTIN, B. S., B. A., Assistant Professor of Mathematics.

J. A. PETERSON, M. E., Assistant Professor of Mechanical Engineering.

> I. C. SANDERS, B. S., Assistant Professor of Physics.

ARCHER WOODFORD, B. A., Assistant Professor of Modern Languages.

J. O. TARBOX, A. B., Captain, U. S. Army, Assistant Professor of Military Science and Tactics.

J. O. LAWRENCE, Captain, U. S. Army, Assistant Professor of Military Science and Tactics.

H. F. SEAWRIGHT, First Lieutenant, U. S. Army, Assistant Professor of Military Science and Tactics.

> R. F. DREITZLER, B. S., Assistant Professor of Forestry.

S. S. MORGAN, Assistant Professor of English.

H. J. FITZGERALD, B. S., Captain, U. S. Army, Assistant Professor of Military Science and Tactics.

> J. T. L. McNEW, B. S., Assistant Professor of Civil Engineering.

H. S. RUTH, First Lieutenant, U. S. Army, Assistant Professor of Military Science and Tactics.

> O. M. HELFF, M. S., Assistant Professor of Biology.

H. M. MILTON, B. S., Assistant Professor of Mechanical Engineering.

C. W. CRAWFORD, B. S., Assistant Professor of Mechanical Engineering.

L. L. CHAPPELLE, Instructor in Mechanical Engineering.

> B. W. BITTLE, A. M., Instructor in English.

C. C. BRADEN, B. S., Instructor in Civil Engineering. R. SCHAER, B. S., Instructor in Chemistry.

A. J. SPIETH, A. B., Instructor in Chemistry.

R. J. COLE, B. S., Instructor in Horticulture.

WALTER DOWNARD, Instructor in Mechanical Engineering.

A. G. KUNZ, Instructor in Mechanical Engineering.

L. K. LAURSEN, Instructor in Mechanical Engineering.

> D. G. STURKIE, B. S., Instructor in Agronomy.

E. M. KING, Instructor in Agricultural Engineering.

> P. H. WALSER, B. S., Instructor in Animal Husbandry.

L. L. FOURAKER, B. S., Instructor in Electrical Engineering.

> L. A. KOENIG, B. A., Instructor in Chemistry.

F. R. JONES, B. S., Instructor in Agricultural Engineering.

> B. F. K. MULLINS, A. B., Instructor in Drawing.

A. S. LEGG, B. S., Instructor in Electrical Engineering.

G. G. ALBRITTON, B. S., Instructor in Physics and Mathematics.

> D. E. BAKER, B. S., Instructor in Drawing.

B. C. JONES, A. B., Instructor in Chemistry.

W. B. KOEHLER, B. S., Instructor in Animal Husbandry.

F. R. BRISON, B. S., Instructor in Horticulture.

J. B. OLIPHINT, B. S., Instructor in Chemistry. F. G. RAY, A. B., Instructor in Physics.

P. F. ENGLISH, M. S., Instructor in Biology.

T. A. FRITTS, B. S., Instructor in Mathematics.

E. K. SPAHR, M. A., Instructor in English.

W. T. BRYANT, M. S., Instructor in Chemistry.

E. L. HARTER, A. B., Instructor in Chemistry.

E. B. PAXTON, B. S., Instructor in Electrical Engineering.

I. H. BETTIS, B. S., Instructor in Mechanical Engineering.

> L. B. ROBERTS, M. A., Instructor in Physics.

W. H. CORPENING, B. S., Instructor in Agronomy.

R. W. FRARY, B. S., Instructor in Mathematics.

H. C. DOREMUS, B. S., Instructor in Civil Engineering.

F. S. DIAL, Instructor in Textile Engineering (Federal Students).

LEON HAIRSTON, Instructor in Textile Engineering (Federal Students).

SUMMARY OF TEACHING STAFF AS OF APRIL 1, 1922.

Associate Professors	Professors	<b>1</b> 8
	Associate Professors	34
Tratemotors 97	Assistant Professors 3	38
	Instructors 3	37

15	7
1.63	4

## THE SCHOOL OF AGRICULTURE.

#### FACULTY.

WILLIAM BENNETT BIZZELL, Ph. D., D. C. L., LL. D., President.

> E. J. KYLE, M. S. A., Dean.

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

> M. FRANCIS, D. V. M., Professor of Veterinary Anatomy.

> > E. J. KYLE, M. S. A., Professor of Horticulture.

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

J. B. BAGLEY, B. A., Professor of Textile Engineering.

J. OSCAR MORGAN, M. S. A., Ph. D., Professor of Agronomy.

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

> M. L. HAYES, A. M., Professor of Vocational Teaching.

C. B. CAMPBELL, Ph. D., Professor of Modern Languages.

R. P. MARSTELLER, D. V. M., Professor of Veterinary Medicine and Surgery.

> O. W. SILVEY, A. M., Ph. D., Professor of Physics.

F. B. CLARK, M. A., Ph. D., Professor of Economics.

E. O. SIECKE, B. A., B. S., Professor of Forestry.

S. W. BILSING, M. A., Professor of Entomology.

J. F. McDONALD, A. M., Professor of History.

D. SCOATES, A. E., Professor of Agricultural Engineering. P. K. WHELPTON, B. S., Professor of Farm Management.

G. S. TEMPLETON, B. S., Professor of Animal Husbandry.

R. L. POU, M. S., Professor of Dairy Husbandry.

WM. E. GARNETT, M. A., Ph. D., Professor of Rural Sociology.

F. A. BUECHEL, Ph. M., Professor of Agricultural Economics, Head of the Course in Agricultural Administration.

> E. OSCAR RANDOLPH, M. A., D. Litt., Professor of Geology.

> > D. B. COFER, A. B., Acting Professor of English.

A. T. POTTS, M. S., Professor of Vegetable Gardening.

W. L. STANGEL, B. S., A. M., Professor of Animal Husbandry.

D. W. WILLIAMS, M. S., Professor of Animal Husbandry.

W. H. H. MORRIS, Major, U. S. Army, Professor of Military Science and Tactics.

J. HORACE KRAFT, A. B., B. S., Professor of Agricultural Education.

J. F. DAVIS, Major, U. S. Army, Professor of Military Science and Tactics.

E. P. HUMBERT, M. S., Ph. D., Professor of Genetics.

W. H. THOMAS, B. Litt., A. M., Associate Professor of English.

C. A. WOOD, M. S., Associate Professor of Agronomy.

F. HENSEL, M. S., Associate Professor of Horticulture.

R. D. BRACKETT, A. B., Associate Professor of English.

H. R. BRAYTON, A. B., M. S., Associate Professor of Chemistry.

C. W. BURCHARD, A. M., Associate Professor of Chemistry and Chemical Engineering. T. J. CONWAY, B. S., Associate Professor of Poultry Husbandry.

J. A. CLUTTER, B. S., Associate Professor of Dairy Husbandry.

S. D. SNYDER, B. S., Associate Professor of Agricultural Engineering.

W. A. STONE, S. B., Associate Professor of Chemistry and Chemical Engineering.

> R. K. FLETCHER, M. A., Associate Professor of Entomology.

A. R. CAHN, M. S., Associate Professor of Biology.

L. E. DOWD, Associate Professor of Textile Engineering.

D. S. BUCHANAN, B. S., Associate Professor of Animal Husbandry.

J. H. STALLINGS, M. S., Associate Professor of Agronomy.

A. L. DARNELL, B. S., M. A., Associate Professor of Dairy Husbandry.

H. P. SMITH, B. S., Associate Professor of Agricultural Engineering.

> E. E. McQUILLEN, M. S., Associate Professor of Genetics.

F. A. BURT, B. S., Associate Professor of Geology.

## THE SCHOOL OF ENGINEERING.

FACULTY.

WILLIAM BENNETT BIZZELL, Ph. D., D. C. L., LL. D., President.

> J. C. NAGLE, M. A., M. C. E., Dean.

CHARLES PURYEAR, M. A., C. E., LL. D., Professor of Mathematics.

E. J. FERMIER, M. E., Professor of Mechanical Engineering.

J. B. BAGLEY, B. A., Professor of Textile Engineering.

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

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

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

> C. B. CAMPBELL, Ph. D., Professor of Modern Languages.

O. W. SILVEY, A. M., Ph. D., Professor of Physics.

F. B. CLARK, M. A., Ph. D., Professor of Economics.

J. C. NAGLE, M. A., M. C. E., Professor of Civil Engineering.

> J. F. McDONALD, A. M., Professor of History.

E. B. LaROCHE, B. Arch., Professor of Architecture.

D. SCOATES, A. E., Professor of Agricultural Engineering.

L. R. DOUGHERTY, Major, U. S. Army, Professor of Military Science and Tactics.

E. OSCAR RANDOLPH, M. A., D. Litt., Professor of Geology.

> D. B. COFER, A. B., Acting Professor of English.

H. E. SMITH, M. E.,

Professor of Steam Engineering.

J. J. RICHEY, C. E., Professor of Structural Engineering.

> R. F. SMITH, Professor of Mathematics.

O. B. WOOTEN, B. S., Professor of Applied Electricity.

M. K. THORNTON, B. S., A. M., Professor of Industrial Chemistry.

J. M. KELLOGG, M. Arch., Professor of Architecture.

W. J. EMMONS, Sc. B., A. M., Professor of Highway Engineering.

L. A. KURTZ, Captain, U. S. Army, Professor of Military Science and Tactics.

C. W. RUSSELL, Major, U. S. Army, Professor of Military Science and Tactics.

> G. A. GEIST, B. S., Professor of Free-hand Drawing.

B. D. MARBURGER, B. S., Professor of Railroad Engineering.

W. H. THOMAS, B. Litt., A. M., Associate Professor of English.

R. D. BRACKETT, A. B., Associate Professor of English.

H. R. BRAYTON, A. B., M. S., Associate Professor of Chemistry.

C. W. BURCHARD, A. M., Associate Professor of Chemistry and Chemical Engineering.

> J. W. MITCHELL, B. A., Associate Professor of Mathematics.

BYRON BIRD, C. E., Associate Professor of Civil Engineering.

W. A. STONE, S. B., Associate Professor of Chemistry and Chemical Engineering.

> H. HALPERIN, E. E., A. M., Associate Professor of Mathematics.

F. H. FISH, B. S., Associate Professor of Chemistry. L. V. MERCER, M. E., Associate Professor of Mechanical Engineering.

> H. N. JUNE, B. S. in Arch., Associate Professor of Architecture.

J. B. STRAW, B. S., Associate Professor of Electrical Engineering.

> F. A. BURT, B. S., Associate Professor of Geology.

T. A. MUNSON, B. S., Associate Professor of Civil Engineering.

## THE SCHOOL OF VETERINARY MEDICINE. FACULTY.

WILLIAM BENNETT BIZZELL, Ph. D., D. C. L., LL. D., President.

> M. FRANCIS, D. V. M., Dean.

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

M. FRANCIS, D. V. M., Professor of Veterinary Anatomy.

> O. M. BALL, M. A., Ph. D., Professor of Biology.

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

> C. B. CAMPBELL, Ph. D., Professor of Modern Languages.

R. P. MARSTELLER, D. V. M., Professor of Veterinary Medicine and Surgery.

> O. W. SILVEY, A. M., Ph. D.. Professor of Physics.

S. W. BILSING, B. S., M. A., Professor of Entomology.

G. S. TEMPLETON, B. S., Professor of Animal Husbandry.

R. L. POU, M. S., Professor of Dairy Husbandry.

D. B. COFER, A. B., Acting Professor of English.

W. H. THOMAS, B. Litt., Associate Professor of English.

R. D. BRACKETT, A. B., Associate Professor of English.

N. S. BLACKBERG, D. V. M., Associate Professor of Veterinary Physiology and Pharmacology.

> A. A. LENERT, B. S., D. V. M., Associate Professor of Veterinary Medicine.

> E. W. PRICE, D. V. M., Associate Professor of Veterinary Pathology.

# THE AGRICULTURAL EXPERIMENT STATION.

WILLIAM BENNETT BIZZELL, Ph. D., D. C. L., LL. D., President.

B. YOUNGBLOOD, Ph. D.,

Director.

#### STATION STAFF.

## Administration :

B. YOUNGBLOOD, Ph. D., Director, CHARLES A. FELKER, Chief Clerk. A. S. WARE, Secretary. A. D. JACKSON, Executive Assistant. CHARLES GORZYCKI, Technical Assistant. M. P. HOLLEMAN, JR., Assistant Chief Clerk.

#### Veterinary Science:

\*M. FRANCIS, D. V. M., Chief. H. SCHMIDT, D. V. S., Veterinarian. J. J. REID, D. V. M., Veterinarian.

#### **Chemistry:**

G. S. FRAPS, Ph. D., Chief; State Chemist. S. E. ASBURY, M. S., Assistant Chemist. S. LOMANITZ, B. S., Assistant Chemist. J. B. SMITH, B. S., Assistant Chemist. WALDO WALKER, Assistant Chemist.

#### Horticulture:

H. NESS, M. S., Chief. W. S. HOTCHKISS, Horticulturist.

#### **Animal Industry**:

J. M. JONES, A. M., Chief; Sheep and Goat Investigations.

R. M. SHERWOOD, B. S., Poultry Husbandman.

G. R. WARREN, B. S., Animal Husbandman in Charge of Swine Investigations.

J. L. LUSH, Ph. D., Animal Husbandman (genetics).

L. M. MURPHY, Wool Specialist.

#### Entomology:

M. C. TANQUARY, Ph. D., Chief; State Entomologist. H. J. REINHARD, B. S., Entomologist.

- H. B. PARKS, Apiculturist.
- C. S. RUDE, B. S., Entomologist. A. H. ALEX, B. S., Queen Breeder.
- W. P. TRICE, B. S., Assistant Entomologist.

#### Agronomy:

- A. B. CONNER, B. S., Chief; Crops.
- A. H. LEIDIGH, B. S., Agronomist, Soils.

. E. B. REYNOLDS, M. S., Agronomist, Small Grains.

E. W. GEYER, B. S., Agronomist; Farm Superintendent.

<sup>\*</sup>In cooperation with School of Veterinary Medicine, A. and M. College of Texas.

Plant Pathology and Physiology:

J. J. TAUBENHAUS, Ph. D., Chief.

**Cotton Breeding:** 

G. F. FREEMAN, D. Sc., Chief.

Farm and Ranch Economics:

A. B. COX, Ph. D., Chief.

#### Soil Survey:

\*\*W. T. CARTER, JR., B. S., Chief. H. W. HAWKER, Soil Surveyor. H. V. GEIB, B. S., Soil Surveyor. \*\*PEARL DRUMMOND, Seed Analyst.

#### Feed Control Service:

- B. YOUNGBLOOD, Ph. D., Director.
- F. D. FULLER, M. S., Chief Inspector.
- S. D. PEARCE, Inspector.
- J. H. ROGERS, Inspector.
- W. H. WOOD, Inspector.

#### Substations.

- No. 1, Beeville, Bee County:
  - I. E. COWART, M. S., Superintendent.
- No. 2, Troup, Smith County: W. S. HOTCHKISS, Superintendent.
- No. 3, Angleton, Brazoria County: V. E. HAFNER, B. S., Superintendent.
- No. 4, Beaumont, Jefferson County: A. H. PRINCE, B. S., Superintendent.
- No. 5, Temple, Bell County: D. T. KILLOUGH, B. S., Superintendent.
- No. 6, Denton, Denton County: C. H. McDOWELL, B. S., Superintendent.
- No. 7, Spur, Dickens County: R. E. DICKSON, B. S., Superintendent.
- No. 8, Lubbock, Lubbock County: R. E. KARPER, B. S., Superintendent.
- No. 9, Pecos, Reeves County: V. L. CORY, B. S., Superintendent.
- No. 10, College Station, Brazos County (Feeding and Breeding Substation): L. J. McCALL, Superintendent.
- No. 11, Nacogdoches, Nacogdoches County:
   G. T. McNESS, Superintendent.
  - \*\*No. 12, Chillicothe, Hardeman County: A. B. CRON, B. S., Superintendent.
  - No. 14, Sonora, Sutton-Edwards Counties:
    E. M. PETERS, B. S. Superintendent.
    D. H. BENNETT, V. M. D., Veterinarian.

<sup>\*\*</sup>In cooperation with United States Department of Agriculture.

## THE ENGINEERING EXPERIMENT STATION.

WILLIAM BENNETT BIZZELL, Ph. D., D. C. L., LL. D.,

President.

J. C. NAGLE, M. A., C. E., Dean of Engineering. Director.

### ADVISORY COUNCIL.

E. B. La ROCHE, B. Arch., Professor of Architecture.

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

> F. B. CLARK, M. A., Ph. D., Professor of Economics.

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

E. J. FERMIER, M. E., Professor of Mechanical Engineering.

O. W. SILVEY, A. M., Ph. D., Professor of Physics.

J. B. BAGLEY, B. A., Professor of Textile Engineering.

W. J. EMMONS, Sc. B., A. M., Professor of Highway Engineering.

D. SCOATES, A. E., Professor of Agricultural Engineering.

## THE EXTENSION SERVICE.

WILLIAM BENNETT BIZZELL, Ph. D., D. C. L., LL. D.,

President.

T. O. WALTON.

Director.

W. B. LANHAM.

Assistant Director.

S. C. HOYLE.

Editor.

D. L. WEDDINGTON.

Chief Clerk.

Farm Demonstration Work:

H. H. WILLIAMSON, State Agent.

R. W. PERSONS, Assistant State Agent.

J. B. BEERS, Specialist in Cotton Classing.

A. R. BENTLEY, Agricultural Engineer.
 A. W. BUCHANAN, District Agent,
 W. H. DARROW, District Agent.

M. M. DAUGHERTY, Farm Management Specialist. JOHN R. EDMONDS, District Agent. JOHN T. EGAN, District Agent.

C. M. EVANS, Agent in Dairying.

S. C. EVANS, Boys' Club Agent.

M. E. HAYS, Horticulturist.

R. R. LANCASTER, Rural Organizer.

W. T. MAGEE, Animal Husbandman. E. A. MILLER, Sweet Potato Specialist.

G. W. ORMS, District Agent.

R. R. REPPERT, Entomologist.

A. K. SHORT, Agronomist.

A. L. SMITH, District Agent.

J. E. STANFORD, District Agent.

J. LYNN THOMAS, Dairy Husbandman.

T. B. WOOD, District Agent.

J. W. PATTON, Poultry Husbandman.

**Home Demonstration Work:** 

MISS M. HELEN HIGGINS, State Home Demonstration Agent.

MRS. DORA R. BARNES, Clothing Specialist.

MRS. MAGGIE W. BARRY, Special Agent.

MISS BENNIE CAMPBELL, District Home Demonstration Agent.

MRS. KATE LEE DAUGHERTY, District Home Demonstration Agent.

MISS BESS EDWARDS, District Home Demonstration Agent.

MISS MYRTLE MURRAY, Poultry Specialist. MISS MILDRED HORTON, District Home Demonstration Agent.

MISS MARY JESSIE STONE, District Home Demonstration Agent.

MISS HELEN SWIFT, District Home Demonstration Agent.

MISS KITTIE D. WASHINGTON, Specialist Home Economics (Food).

**Negro Extension Work:** 

C. H. WALLER, Leader Negro Extension Work. H. S. ESTELLE, District Agent.

R. H. HINES, District Agent. MRS. M. E. V. HUNTER, District Agent.

## ADMINISTRATION OF STATE LAWS.

Feed Control Law.

Administered by the Director of the Agricultural Experiment Station.

Fertilizer Law.

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

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

> H. B. SMITH, Inspector.

Foul Brood Law.

M. C. TANQUARY, Ph. D. State Entomologist.

Forestry Law.

E. O. SIECKE, B. A., B. S., State Forester.

PAGE S. BUNKER, B. S., Agent, Forestry.

R. F. DREITZLER, B. S., Assistant State Forester.

#### **OTHER OFFICERS OF THE COLLEGE.**

S. G. BAILEY, Executive Secretary to the President. Secretary to the Board of Directors.

L. G. JONES, M. S., Student Adviser, Secretary, Young Men's Christian Association.

> FRANK O. MARTIN, Publicity Secretary.

D. X. BIBLE, Instructor and Co-ordinator of Physical Training.

> JAMES SULLIVAN, Director of Physical Training.

R. K. CHATHAM, Manager, Cadet Exchange Store.

J. R. GULLEDGE, B. A., Assistant Librarian.

MRS. W. H. THOMAS, Assistant Librarian.

MRS. F. H. FISH, Assistant Librarian.

J. R. McKEE, Student Adviser.

W. B. COOK, B. S., Secretary, Association of Former Students.

> H. A. WIDDECKE, Accountant.

CECIL R. ESTILL, Cashier.

FIRST SERGEANT GEORGE SMART, U. S. Army, Retired, Assistant Commandant.

> JULIAN R. WRIGHT, Assistant Commandant.

# PART II general information

. • · · · ·

# GENERAL INFORMATION.

#### 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 Academic Building. Students and visitors are advised to take train arriving in daytime.

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.

# HISTORICAL SKETCH.

The Agricultural and Mechanical College of Texas, like the land grant institutions in 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, 1866, 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. A commission to locate the College was created by the Legislature. After careful investigation, the Commission accepted the proposition of the

# 38 AGRICULTURAL AND MECHANICAL COLLEGE OF TEXAS.

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. 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 extension.

#### GOVERNMENT.

The government of the College is vested in a board of nine directors, appointed by the Governor for terms of six years.

# ADMINISTRATION.

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

# ORGANIZATION.

The College comprises the Schools of Agriculture, of Engineering, of Veterinary Medicine; the Agricultural Experiment Station, the Engineering Experiment Station, the Extension Service, and the Summer Session.

# DEPARTMENTS.

The College has now in operation thirty-one departments of instruction, which are listed under the heading "Courses of Instruction by Departments."

#### DISCIPLINE.

Discipline is administered by the Commandant. The regulations are designed with the view of securing consistent conformity to the following

General Requirement.—Every student is expected at all times to conform to the ordinary rules of gentlemanly conduct; to be truthful; to respect the rights of others; to be punctual and regular in attendance upon all required exercises; to apply himself diligently to his studies; and to have due regard for the preservation of College property.

Students are not allowed to leave the College grounds, either to visit neighboring towns or their homes, without first securing a furlough from the Commandant. When a student overstays a furlough his name may be dropped from the rolls.

# GENERAL INFORMATION.

For improper conduct, or failure to keep up with his studies, a student may at any time be required to withdraw from the College.

#### HAZING.

Hazing is forbidden by the law of the State and by College regulations. Every student, upon re-entering the College after his first year, is required to sign a pledge that he will not engage in hazing while he is a student of the College. These pledges are to be witnessed by the parent or guardian of the student.

# MILITARY ORGANIZATION.

Eligibility for Different Branches of the Service.—All students entering the College as Freshmen are eligible to enroll in the Infantry, Field Artillery, or Cavalry. All Freshmen enrolling for the four-year electrical engineering course or who have had the equivalent training prior to entering College are eligible to enroll in the Signal Corps unit. All Freshmen enrolling for a four-year course in civil engineering, mechanical engineering, chemical engineering, electrical engineering are eligible for enrollment in the Air Service provided they submit at date of registration a letter signed by parent or guardian authorizing their enrollment in the Air Service unit.

All military instruction is under the immediate charge of the Professor of Military Science and Tactics. The officers of the Cadet Corps are selected from the Senior class, non-commissioned officers from the Junior and Sophomore classes.

# RESERVE OFFICERS' TRAINING CORPS.

The act of Congress of June 3, 1916, known as the National Defense Act, provides for the establishment in civil educational institutions of units of the Reserve Officers' Training Corps (R. O. T. C.). The object of the Reserve Officers' Training Corps is best stated by the War Department in its Special Regulations No. 44, which govern the R. O. T. C., and is as follows:

"Object.—The primary object of the Reserve Officers' Training Corps is to provide systematic military training at civil educational institutions as reserve officers in the military forces of the United States. It is intended to attain this object during the time that students are pursuing their general or professional studies with the least practicable interference with their civil careers, by employing methods designed to fit men physically, mentally, and morally for pursuits of peace as well as pursuits of war. It is believed that such military training will aid greatly in the development of better citizens. It should be the aim of educational institutions to maintain one or more units of the Reserve Officers' Training Corps in order that in time of national emergency there may be instantly available a large number of educated men physically efficient and trained in the fundamentals of military science and tactics and fitted to lead intelligently the units of the armies upon which the safety of the country will depend. The extent to which this object is accomplished will be the measure of the success of the Reserve Officers' Training Corps."

Under the provisions of the National Defense Act, the President of the United States has authorized the organization of five units of the R. O. T. C. at this College, namely: Infantry, Field Artillery, Aviation, Signal Corps and Cavalry. All students of this institution who are physically fit and who have not had a minimum of six months in the Army, Navy or Marine Corps during the past emergency, are required to take the Basic Course in the R. O. T. C., which includes the first two years. Mature men who enter with advanced standing in a considerable number of subjects may, for reasons satisfactory to the Faculty, be excused from military duty. This course when entered upon becomes prerequisite to graduation and carries with it credits corresponding to other class work.

# BASIC COURSE.

Obligations.—Members of the Basic Course are not obligated further than to pursue the course diligently and properly to care for equipment and apparatus used in the institution.

*Benefits.*—Each student will be furnished commutation of uniform, which at the present time amounts to \$30 the first year and \$6 the second year, provided that amount has been expended for uniform.

#### ADVANCED COURSE.

In order to continue in the R. O. T. C. for the advanced course, i. e., during the Junior and Senior years, a student must be selected by the President of the institution and the Professor of Military Science and Tactics, and he must obligate himself to attend the advanced course camp as prescribed by the Secretary of War. This course, including the prescribed camp training, when entered upon, becomes a prerequisite to graduation.

Obligations.—The student obligates himself:

a. To pursue the course while at the College.

b. To attend the advanced course camp.

c. To take proper care of the equipment furnished him.

d. He is expected, though not bound, to accept a commission in the Officers' Reserve Corps if offered one, unless prevented by unusual conditions.

Benefits.—a. He will receive commutation of uniforms at the rate of \$30 for the first year and \$6 for the second year.

b. He will be furnished subsistence now allowed at 40 cents per day from the beginning of his Junior year to the end of his Senior year,

excepting during camp when he is given rations in kind. Commutations of rations will not be paid for more than two years.

c. While at camp he will receive \$1 per day and will also receive transportation to and from camp.

d. After graduation he may be eligible for appointment as officer in the Reserve Corps.

e. Honor graduates are eligible for appointment as second lieutenant, U. S. Army, with only the physical examination necessary.

f. Graduates may be given opportunities to take competitive examinations for Regular Army commission.

# WITHDRAWAL FROM R. O. T. C.

For satisfactory reasons, upon recommendation of the Professor of Military Science and Tactics, the authorities of the institution may discharge members of the R. O. T. C. from such corps and from the necessity of completing the course in military training as a prerequisite to graduation.

# METHOD AND SCOPE OF INSTRUCTION.

In all courses the fundamental idea is education in practical science. With this idea in view, instruction is given in English, history, economics, mathematics, 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 graduate 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 tests are given at the discretion of instructors. Written examinations are held at the end of each term.

# REHABILITATION OF DISABLED SOLDIERS.

Special elementary courses in various phases of agriculture, poultry husbandry, bee keeping, highway work and cotton classing have been organized for disabled soldiers, being trained under the supervision of the Federal Board for Vocational Education.

These courses are, in general, similar to courses provided for other students but are modified to provide a definite objective for the men in training.

- 5

# AGRICULTURAL AND MECHANICAL COLLEGE OF TEXAS.

# NON-RESIDENT LECTURERS.

At intervals throughout the session, men who have attained prominence in some branch of agriculture or engineering or in other lines are invited to address the students with the view of enabling them to see more closely the relation between their college instruction and the work they will be called upon to do after they enter upon their professional careers.

# TRIPS OF INSPECTION.

At suitable times during the session trips of inspection, under the direction of some member of the teaching staff, are made to points of special interest. These trips have a high instructional value, and students of the upper classes are encouraged, though not required, to take them.

# ELECTIVE STUDIES.

Elective studies are to be chosen by the student under the advice and direction of a member of the Faculty designated for the purpose, and subject to schedule. The choice of electives for any year must be made by April 15 of the preceding year. Those do not not comply with the requirements in regard to the choice of electives are subject to an assessment of \$1.00. The right is reserved to withdraw any course not required for graduation, if it should be chosen by fewer than five students.

# ABSENCES.

When a student is absent from recitation a considerable number of times, his absences are taken into account in making up his term grade, unless the work missed is satisfactorily made up before the time set for the examination.

In any theory subject if a student's absences, when not due to sickness or to military duty, exceed one-eighth of the number of recitations scheduled for the subject, his daily average in that subject will not be above 65.

# FEE FOR CHANGING COURSES OR TAKING UP NEW SUBJECTS.

For changing from one course to another at any time after the beginning of the term there will be a fee of \$3. For taking up a new subject later than two weeks after the beginning of a term there will be a fee of \$1.

#### REPORTS.

In order to keep parents systematically informed concerning the progress of their sons, reports, showing class standing and record of conduct, are sent out from the Dean's office at the end of each term. A preliminary report is sent out soon after December 1.

#### 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 work of sanitation is carried on throughout the entire year, with especial reference to the eradication of mosquitoes, flies, and other disease-bearing agencies.

Drinking water is supplied by wells varying in depth from 300 feet to 1300 feet.

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 and contribute very much to the maintenance of health and proper physical development.

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.

#### ATHLETICS.

The usual forms of athletic sports are encouraged. The College is a member of the Southwest Athletic Conference. The general rules of eligibility of this organization have been adopted by the Faculty. The Faculty Committee on Athletics is entrusted with the general oversight of athletics.

# BAND.

An attractive feature is a regularly 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 dress parade.

# RELIGIOUS AND MORAL CULTURE.

There is religious service in the chapel every Sunday for the corps of cadets and the residents of the campus. A Sunday school for Bible study, attendance at which is voluntary, 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.

# YOUNG MEN'S CHRISTIAN ASSOCIATION.

The Young Men's Christian Association occupies a handsome building in which ample provision is made for the meetings of the Association, for Bible study, for social gatherings, and for games. In the basement there is a well appointed swimming pool.

#### THE LIBRARY.

The Library contains approximately 20,000 volumes, including between 2000 and 2500 bound public documents, and exclusive of the files of the Federal and State Agricultural bulletins. While the Library has hitherto been modeled chiefly along reference lines a very good reading Library has now been accumulated, and the careful selection of new books keeps the collection abreast of contemporary thought. With the exception of books of general reference, current periodicals, and books temporarily reserved by certain departments for required reading all books are loaned for home use for a period of two weeks, with the privilege of renewal for the same length of time.

The Library receives one hundred and seventy-five standard magazines, reviews and technical journals, besides the leading newspapers of the State, and some journals of national importance. Files are kept of some of the most important of these periodicals.

The Library is a United States designated depository and receives copies of all Federal publications. A card index is maintained of all publications of the United States Department of Agriculture and of the State Experiment Stations.

The Library is open on week days and holidays from 8 a. m. to 12 m., from 1 p. m. to 5 p. m., and from 7 p. m. to 10 p. m. The Sunday hours are from 2 to 5 p. m.

#### PUBLICATIONS.

The following publications are issued by the College:

The Bulletin of the Agricultural and Mechanical College of Texas.— This is a monthly publication which includes the bulletins of the Texas Engineering Experiment Station, the Catalogue of the College, and the announcement of the Summer Session.

The Daily Bulletin.—This is a small sheet issued daily during the regular session, which carries official notices and other announcements.

Bulletins of the Agricultural Experiment Station.—These bulletins are issued from time to time and contain reports of the results of the investigations of the Station.

The Texas Aggie.—The object of this publication is to keep the alumni informed as to the progress and activities of the College.

*Extension Service Bulletins.*—The Extension Service publishes from time to time bulletins on subjects of popular interest in the fields of agriculture and home economics.

In addition, there are issued twice a month an *Extension Service News Letter* of seasonal advice, and numerous circulars from time to time covering both matters of general agricultural interest and matters of unexpected development.

Student Publications.—The students of the College publish The

# GENERAL INFORMATION.

Battalion, a weekly, devoted to student activities, and interests. The Senior class publishes an annual, *The Longhorn*.

The Young Men's Christian Association publishes at the opening of the session a *Handbook* giving information of value particularly to new students.

# 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."

#### GRADUATION.

A diploma of the College, with the degree corresponding to the course of study pursued, will be granted students who satisfactorily complete one of the regular courses.

For students entering during the session 1922-23 and thereafter, the grade point system will be in effect. Under this system one of the requirements for graduation is that the student must earn each year a specified minimum number of grade points. To do this it will be necessary for him to get a grade above C in approximately one-half of his studies.

No degree will be conferred without a residence of at least one year at the College. The diploma fee is \$7.50.

The fee for certificates in two-year courses is \$1.00.

#### HONORS.

At the end of each session students who have during the year received no term grade below B are announced as "Distinguished."

#### 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, text-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.

# AGRICULTURAL AND MECHANICAL COLLEGE OF TEXAS.

 $\mathbf{46}$ 

# STUDENT LABOR.

The Legislature provides 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.

# CHANGES IN ANNOUNCEMENTS.

The announcements made in this Catalogue are based upon present conditions, and are subject to change without notice.

# BUILDINGS.

# BUILDINGS.

The physical plant of the College includes nine dormitories, an academic building, a Y. M. C. A. building, a mess hall, an assembly hall, a physics building, an agricultural and horticultural building, an animal husbandry building, a chemical building, a veterinary building, a civil engineering building, an electrical engineering building, two experiment station buildings, two mechanical engineering buildings, a textile engineering building, a hospital, a veterinary hospital, a serum laboratory, a farm implement building, a dairy barn, a power plant, a laundry, a sewerage system, barns and outhouses, and residences for instructors and officers, with a total valuation of approximately \$2,000,000.

# ACADEMIC BUILDING.

The Academic Building, completed in 1914, is located on the highest part of the Campus and occupies the site of the original Main Building, which was erected in 1876, and destroyed by fire May 27, 1912. It is 89 feet wide and 260 feet long and four stories high. It provides class and lecture rooms for the departments of architecture, drawing, economics, English, history, and mathematics, and quarters for the administrative offices, and the library; certain other departments have been assigned temporary quarters in this building. The building is constructed of brick and reinforced concrete, and is fireproof.

# BERNARD SBISA HALL.

This is a one-story, fireproof building, erected in 1912, to replace the Mess Hall destroyed by fire in October, 1911. It is named in honor of Bernard Sbisa, Supervisor of Subsistence. The seating capacity is 2000 and the appointments of the building are modern in every respect.

# Y. M. C. A. BUILDING.

The Y. M. C. A. Building occupies one of the best locations on the Campus. The building proper is "T" shaped in plan, 89 feet across the front and 111 feet from front to rear. It is three stories high, exclusive of basement, with front portion surrounded by a wide terrace that forms a portion of the basement story. A barber shop, bowling alleys, locker rooms, shower baths, and swimming pool occupy the basement space; the lobby, auditorium and secretary's office the first floor; two large social rooms and toilets the second floor; and a large conference room, dining room, pantry, and nine sleeping rooms with baths the third floor.

#### GUION HALL.

This building was erected in 1918 and is named in honor of Judge John I. Guion, a former President of the Board of Directors. It is a modern college auditorium, seating nine hundred and sixty on the main floor and nine hundred and forty in the balcony. The building is the terminating feature of the south end of Military Walk balancing Bernard Sbisa Hall on the north end. Its classic facade of six large columns gives a stately effect. The auditorium contains a large stage, seating as many as a hundred people, dressing rooms for men and women, and space for a modern pipe organ.

# HOSPITAL.

The Hospital was erected in 1916. It is two stories and basement high, 116 feet long by 82 feet wide where its dimensions are greatest. The construction is fireproof except for the doors and windows of the wards; openings into the stair tower and elevator shaft are guarded by approved metal doors and windows.

The administration department includes a waiting room, two examining rooms, a record room, a locker room, a dispensary, a laboratory, an operating suite (surgeons' and nurses' "scrub-ups," sterilizing and anesthetizing and operating rooms), blanket warmers, and X-ray room, a library, and storerooms. There is an employes' dining room, a complete kitchen with supply rooms and refrigeration, and diet kitchens with dumb waiter service, steam tables and electric ranges for each floor. There are also living quarters for the staff and attendants.

The College Hospital is the first hospital building in the world to be equipped with showers throughout. There are nineteen, all provided with anti-scalding devices, those for patients being automatically regulated to discharge water of a constant pressure. There is but one permanently installed tub.

# POWER PLANT.

This building, completed in 1917, is a modern fireproof structure, carefully designed to house boilers, engines and machinery used to generate heat and light and to manufacture ice for all College purposes. Space is provided for expansion to take care of future growth. The building comprises about twenty-one thousand seven hundred square feet of floor space.

# CHEMISTRY BUILDING.

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. It contains the offices, class rooms, laboratories, and storerooms of the department of Chemistry and Chemical Engineering.

# MILITARY SCIENCE BUILDING.

This building, erected in 1920, is a two-story frame structure with a stucco exterior and a fire resisting roof, 45 feet wide and 71 feet long. It is conveniently arranged to provide offices for the Military

#### BUILDINGS.

Staff and six large class rooms for instruction in Military Science and Tactics.

# PHYSICS BUILDING.

The Physics Building, erected in 1919-20, is 61 feet wide by 120 feet long. It is modern and fireproof in all respects.

The building comprises a well lighted basement and two upper stories. In the basement are located the heat, optical and magnetic laboratories; five small laboratories, dark rooms, storage rooms, and toilets. On the first floor the general laboratory; electrical laboratory; four offices; shop, apparatus rooms and toilets are located; and on the second floor five recitation rooms; a large lecture hall; a small lecture hall; apparatus room and toilet.

#### AGRICULTURAL ENGINEERING BUILDING.

This building temporarily houses the department of Agricultural Engineering. It provides offices, class rooms, and laboratories for the study of gas engines, tractors, and farm equipment and machinery.

# AGRICULTURAL AND HORTICULTURAL BUILDING.

This building, erected in 1899, accommodates the agricultural and horticultural departments of the College, furnishing rooms for class instruction, laboratory investigations, museum purposes, butter and cheese making, pasteurizing milk, seed storeroom, photographic room, and the necessary offices for the accommodation of these departments. This 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.

# ANIMAL HUSBANDRY BUILDING.

The Stock Judging Pavilion, built in 1917, is a fireproof building 200 feet long by 100 feet wide, containing a 160-foot by 60-foot display ring, surrounded by reinforced concrete circus seats for 1600 spectators. Additional seats of the same character can be erected in the four corners and will provide 240 more sittings. The roof is of cement tile, supported by steel trusses which are carried on steel columns placed back of the seating sections between them and the wall aisles, thus providing unobstructed view for the entire audience.

The space underneath the seating sections is completely utilized. There are three class rooms with attached offices, waiting rooms, locker and toilet rooms, a washing room, a killing room with refrigeration, quarters for the custodian and ten box stalls for show stock.

# DAIRY BARN.

The dairy barn, built in 1916, is a one-story hollow tile building, situated west of the railroad tracks on the principal axis of the campus. It is 200 feet long by 34 feet wide, with a wing in rear 34 feet by 33 feet. The main part is a single room unobstructed by posts, and is used for milking only. There are stalls for 98 cows, which stand in rows back to back. A trolley carrier, suspended from the roof and running the length of the building is used for handling the milk, which is taken through a screened passageway to a separate building of the same type of construction at the south end, where it is cooled, separated and prepared for use, and where all utensils are sterilized after each milking.

The floor of the milking room is of concrete and is washed out with a hose twice daily. All doors and windows and the openings into the ventilator running the length of the roof are screened. Conditions are ideal for the production of certified milk.

The wing in the rear contains offices, showers, supply and feed rooms.

# CIVIL ENGINEERING BUILDING.

This building, erected in 1909, contains eight lecture rooms, five laboratories, five drawing rooms and several offices and storerooms.

The building is 125 feet wide and 73 feet deep; it has a basement and three stories, is heated by steam and is fireproof.

# ELECTRICAL ENGINEERING BUILDING.

This building, erected in 1912, contains thirteen lecture rooms, four laboratories, two drawing rooms, and several offices and storerooms.

It has a basement and three stories; is 125 feet wide by 103 feet deep; is heated by hot water, and is fireproof.

# MECHANICAL ENGINEERING BUILDING.

This building, erected in 1919, is 53 feet wide and 94 feet long. It is modern and fireproof in all respects and comprises a basement and three stories.

In the basement are provided two laboratories, preparation, storage and shipping rooms. On the first floor are offices, museums and recitation rooms; on the second, offices, recitation rooms, and a library; on the third, two large drafting rooms, a lecture hall, blue print room and an office. A toilet room is located on each floor.

# TEXTILE BUILDING.

This building, erected in 1904, 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

#### BUILDINGS.

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 warppreparation 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 sprinkling system for fire protection has been installed. The plumbing in the building is perfectly sanitary and typical of the best cotton mill practice.

#### VETERINARY HOSPITAL.

The Veterinary Hospital, erected in 1908, contains a 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 permitting the proper isolation of contagious diseases and the thorough disinfection of each stall. An automatic flush tank serves to keep the building in a sanitary condition.

#### FRANCIS HALL.

This building was completed in 1918 to provide laboratories and class rooms for the School of Veterinary Medicine. It is of fireproof construction, 140 feet long and contains three stories and a basement. The first floor contains an office, a library, an amphitheater, an animal room, an apparatus room, a laboratory for anatomy, histology and embryology, and a laboratory for the Department of Medicine and Surgery. The second floor contains an office, a class room, a storeroom, a laboratory for physiology, and one for pharmacology. The third floor is devoted to pathological work. There are two offices, apparatus room, post-mortem room, preparation room and two laboratories, one of which is devoted to pathology and bacteriology for college work; the other to pathological problems involved in Experiment Station work.

Each floor is served by a small elevator, and has the usual toilet facilities. On each floor there are constant temperature rooms. One of these is the "hot" room, which is intended to maintain a reasonably constant temperature from 90 degrees to 110 degrees F. The other is the "cold" room, which is equipped with brine coils to provide a temperature from 30 degrees to 50 degrees F. The basement is used entirely for storage and the service pipes and apparatus.

The entire building is supplied with hot and cold hydrant water, rain water, steam heat, high pressure steam for the autoclaves, gas, electricity, compressed air and vacuum. The laboratory furniture is of special design manufactured by the Kewanee Manufacturing Company.

#### SERUM LABORATORY.

The serum laboratory, built in 1917, is a one-story fireproof building, 100 feet long with an average width of 32 feet. It is arranged for the manufacture of hog cholera serum. It contains observation pens, preparation rooms, killing, hyper-immunizing and bleeding rooms, defibernating rooms, laboratories, storage and packing rooms, offices and toilets.

# RESEARCH CHEMISTRY BUILDING.

This building, erected in 1909, is 115 feet wide and 61 feet deep; it has a basement and two stories, is heated by steam, and is fireproof. It is occupied by the divisions of Chemistry, Entomology, Plant Pathology and Physiology of the Experiment Station.

#### RESEARCH ADMINISTRATION BUILDING.

This building, erected in 1918, is occupied by the Administration and Research Divisions of the Experiment Station. It is modern and fireproof, and is one of the most complete research laboratories devoted to Experiment Station work in the country. Offices are conveniently arranged for the Director and his staff, with a conference room adjoining. Other well arranged offices are provided for the heads of the various divisions and their assistants. A large room is given to the needs of a library. The various laboratories are equipped with electricity, gas, air, steam, and water for experimental purposes; and in connection with each is a large fireproof vault for storage of valuable data. Non-vibrating balance tables are provided in the laboratories. The basement provides ample space for the storage of supplies and materials. Above the basement there are three stories; a freight elevator runs from basement to top floor.

# GATHRIGHT HALL.

This building was erected in 1876, and is named in honor of Thomas L. Gathright, the first President of the College. It is used temporarily for offices for the Extension Service, and for other purposes.

# Dormitories.

1

#### All the dormitories are screened.

#### 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.

#### BUILDINGS.

#### ROSS HALL.

This is a dormitory, erected in 1892, three stories high, with fortyone rooms, with running water in each. 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. There is running water in each room.

## GOODWIN HALL.

This dormitory was erected in 1908 and is named in honor of Hon. G. I. Goodwin. It contains eighty-two rooms and is equipped with a steam heating system and modern toilet facilities. There is running water in each room except those on the first floor.

#### MILNER HALL.

This building was erected in 1911 and is named in honor of former President R. T. Milner. It is a dormitory containing one hundred and two rooms. The building is four stories high; there are no connecting stairways between the several floors, but each story has separate entrances so as to divide the building into four distinct parts, without interfering with the ventilation in any part of the building. Each story has four shower baths and ample toilet facilities. Every room is provided with water, electric light, and hot water heat.

The building is constructed of reinforced concrete and brick, and is practically fireproof.

#### LEGETT HALL.

This building was erected in 1911, and is named in honor of K. K. Legett, a former President of the Board of Directors. It is in every respect a duplicate of Milner Hall.

# HARVEY MITCHELL HALL.

This building was erected in 1912, and is named in honor of a former citizen of Bryan, who was largely instrumental in having the College located in Brazos county.

It is a dormitory, having a basement and three stories, and contains eighty-six rooms, each one having an outside exposure. Each story has shower baths and ample toilet facilities. Every room is provided with water, electric light, and hot water heat.

The building is constructed of reinforced concrete and brick, and is practically fireproof.

# AGRICULTURAL AND MECHANICAL COLLEGE OF TEXAS.

# BIZZELL HALL.

This is a modern, three-story dormitory, erected in 1918, and is named in honor of President W. B. Bizzell. It is built in two sections: the lower floors being connected by a covered passageway. It contains sixty-six rooms, and ample toilet and bathing facilities on each floor of both sections; every room is provided with running water, electric light and steam heat.

The building is of concrete and brick, and is practically fireproof.

#### SEWERAGE SYSTEM.

The College is provided with a system of sewers, to which are connected the buildings of the campus. The outfall of the system is threefourths of a mile from the nearest College building and nine-tenths of a mile from the nearest recitation hall or dormitory.

#### GROUNDS AND GARDEN.

The garden, orchard, barnyards and campus are included in the enclosure to the east of the railroad stations. 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 Academic Building.

# FARM.

The farm proper comprises about three hundred and fifty acres, and has the necessary barns, silos, and outhouses. The pastures contain about one thousand acres, and furnish grazing for the College herds.

# EQUIPMENT.

# AGRICULTURAL ENGINEERING.

The Agricultural Engineering Department has special laboratories for each of the following subjects: Farm machinery, farm motors, automobiles and tractors, and concrete construction. In addition to this there is a drawing room for the use of classes in farm buildings, irrigation and drainage. A hundred-acre farm is provided for practical work in the various subjects.

The farm machinery and tractor laboratories are housed in a building 160x100 feet, which is entirely taken up with up-to-date farm machinery and tractors, such as should be used on Texas farms. The machinery consists of different makes of plows, harrows, planters, cultivators, harvesters, seed cleaners and grinders.

The farm motor laboratory contains twenty-five farm gas engines, together with all apparatus necessary for testing same, and a supply of extra magnetos and carburetors.

The automobile and tractor laboratory contains thirty-four, six, eight, and twelve-cylinder motors, six automobiles, two trucks, a number of chassis, soldering and babbitting room, acetylene welding outfit, special ignition apparatus, storage battery charging and repair outfit, and a number of surplus magnetos and carburetors.

The concrete construction laboratory is equipped with cement and aggregate testing apparatus, together with molds and forms for making such simple concrete structures as are found on the farm.

Equipment for special field work in terracing, drainage and irrigation has been provided.

#### AGRONOMY.

The Agronomy Department has four well equipped laboratories. Two of these are used for instructional purposes in soils, one for instructional purposes in farm crops, and one for instructional purposes in genetics and plant breeding.

The main soils laboratory is equipped with a centrifuge, shaking machine, Briggs filter, electric air pump, torsion balances, chemical balances, drying ovens, hot plates, compound microscopes, evaporimeters, soil capillary tubes, soil samplers and all of the smaller equipment and chemicals for a modern soils laboratory.

The soil fertility laboratory is equipped for specialized instruction in soils for the benefit of senior students who desire to specialize in this subject, and for graduate instruction in soils.

For soil survey instruction, the department has five plane tables equipped with alidades; also other miscellaneous equipment for this work.

The farm crops laboratory is equipped for general laboratory in-

struction in farm crops and also for specialized instruction in commercial grain grading. For the general laboratory study of farm crops the chief items of equipment are standard seed testers, dissecting sets, hand lenses, torsion balances, insect-proof and rat-proof grain bins. Also type samples and specimens of all the important field and forage crops are kept in stock for study. For the work in grain grading the chief items of equipment are two Brown-Duvel moisture testers, a "wild-oat kicker," several complete sets of dockage sieves for determining dockage in the various classes of grain, two "weight per bushel testers," grain triers, a sampling device, grain pans, and a complete stock of the various kinds, classes and grades of grain for practice work in determining the grades.

The genetics and plant breeding laboratory contains all of the modern equipment necessary for laboratory instruction in these subjects.

The department has a modern greenhouse 67x25 feet, equipped for soil fertility, farm crops and plant-breeding work. For field study the department has 35 acres of land devoted to demonstration and experimental work in crops and soils. All of the important types and varieties of farm crops adapted to this section are grown for field study.

The department maintains a rather complete technical library, in which will be found practically all of the standard works and journals pertaining to agronomy, as well as the Experiment Station bulletins and reports.

# ANIMAL HUSBANDRY.

The Animal Husbandry Department is equipped with the following breeds of live stock: Standard Bred, Thoroughbred, Morgan, and Percheron breeds of horses; Shorthorn, Hereford, and Aberdeen-Angus breeds of cattle; Shropshire, Hampshire, Southdown, and Rambouillet breeds of sheep; and Duroc-Jersey, Poland-China, Berkshire, and Tamworth breeds of hogs. These breeds are represented by registered breeding animals in the cases of horses, and by both registered breeding animals and market animals—steers, wethers, and barrows—in the case of cattle, sheep, and hogs, respectively.

On the Animal Husbandry farm there are four barns, viz., a horse barn, a beef cattle barn, a sheep barn, and a hog barn. The land on which the hogs and sheep are kept is divided into small fields and pastures, thus permitting forage crops and pasturage rotation for these animals.

# ARCHITECTURE.

The department has a number of signed drawings and color renderings, an ample library of valuable books, several thousand plates in ring books, a lantern and slides, and a number of well chosen casts to all of which additions are being made constantly. Students of architecture have, of course, access to the equipment of other departments in which they are taking work.

# BIOLOGY.

The department in its various branches is thoroughly equipped with apparatus for lecture room and for laboratory use. There are six laboratories—one zoological, three botanical, one bacteriological and one research. All are amply provided with tables and other general apparatus.

For the use of elementary classes, the department is provided with 45 standard two-power microscopes, with their usual accessories; charts and models of plants and animals; a fairly good collection of prepared specimens, and a herbarium of about 3000 mounted plants. A small greenhouse has lately been acquired. For experimental work and demonstration in the class room, there is an excellent equipment of instruments of precision, largely of French and German make. For the use of more advanced workers there are 12 high-power microscopes of the best makes; 3 Leitz binocular dissecting microscopes; Reickert and Minot microtomes; imbedding ovens; a large and a small incubator; two steam sterilizers; analytical balances; and a full equipment of glassware, chemicals, stains and similar materials.

The library contains about 300 books of reference and several thousand separates, bulletins and special papers. The leading journals of botany, zoology, bacteriology, and mycology are also available to the student.

# CHEMISTRY AND CHEMICAL ENGINEERING.

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 and thirty. The museum occupies a large, well lighted room.

There is 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 compressed-air systems, colorimeters, calorimeters, refractometers, Levibond tintometer, combustion furnaces, gas burettes, and other special apparatus used in technical analysis. The laboratory has the usual equipment for work in physical chemistry.

The department has a good reference library.

#### CIVIL ENGINEERING.

The equipment in this department is excellent and sufficient in quantity to meet the needs of the classes at the present time, and additions are being made to it each year.

For the field work, the equipment consists of a well-assorted lot of transits and engineers' levels for general work; also for more precise work in city surveying and leveling and for simple triangulation. Also surveyors' compasses, terracing levels, plane tables, aneroid barometers, range poles, rods, chains, chain tapes, metallic tapes, surveyors' pins, axes, etc. For the drafting room and other office work there are drawing tables, reckoning machines, two universal drafting machines, planimeters, slide rules, calculating instruments, protractors for general and special use, and a sufficient supply of T-squares, etc.

In the general testing laboratory there is one machine of 100,000, one of 50,000 and one of 20,000 pounds capacity, a 50,000 inchpounds torsion machine, and a rattler for testing paving brick. With the exception of the 20,000-pound machine these are all power-driven.

The hydraulic laboratory contains weirs, pressure gauges, hook gauges, water meters, measuring tanks, impulse wheels, hydraulic ram, centrifugal pumps, pitot tubes, current meters, nozzles, and other apparatus for hydraulic measurements. The centrifugal pumps are connected to a pressure tank in order that they may be forced to pump against various heads.

In the cement laboratory are moulds for shaping test specimens, cement testing machines, sieves for testing the fineness of cement and sand, Vicat and Gillmore's needles for testing time of setting, damp closet, balances, pans and other appliances used in testing the qualities of cements.

The road materials testing laboratory is completely equipped with the most modern machines for testing non-bituminous road materials. This equipment includes a diamond core drill, diamond saw, grinding lap, Dorry hardness machine, Page impact machine for toughness test, Deval abrasion machine, ball mill, cementing-value briquette-forming machine, cementing-value impact testing machine, brick rattler, stone and sand sieves, sieve agitator, balances and other miscellaneous equipment.

There is also an exceptionally well equipped laboratory for the study of bituminous pavements and paving materials, which laboratory affords a means of instruction in the present-day methods of constructing bituminous roads and in the study of materials used for this purpose. It also offers opportunities for co-operative work with the cities and towns of Texas in the investigation of their pavements and available paving materials.

A road exhibit room is also maintained for the benefit of students and visitors. In this room are shown models of road sections and surfaces made of various materials available in Texas. Samples of gravel, rock, asphalt, and road soils, together with photographs, charts and maps of road work in the State complete the exhibit.

The department library and reading room contain engineering books, periodicals, blue prints, photographs, etc., and are kept open for the use of students during the session.

# DAIRY HUSBANDRY.

This department is thoroughly equipped to educate and train young men along the lines of feeding, breeding, care and management of dairy cattle; the handling of milk and the manufacture of dairy products.

The department controls a complete dairy farm of 593 acres of land, the operations of which are devoted to the growing of feed crops, and the preparation and maintenance of permanent pastures for the dairy herd. Two hundred and twenty-five acres are under cultivation, the remainder being devoted to pasturage.

All modern machinery is used by this department, including breaking plows, cultivators, and harvesting machinery.

The herd consists of 170 animals, including cows, calves, and bulls, of which there are 80 pure bred Jerseys, 43 pure bred Holsteins, and 13 pure bred Ayreshires. The milking herd usually includes about 80 cows, which are housed in a modern dairy barn constructed of tile and concrete, and furnished completely with modern barn equipment.

The creamery and laboratory occupy the entire south end of the ground floor of the Agriculture Building. The creamery is operated on a commercial basis, and all equipment and machinery necessary for the manufacture of butter and ice cream is available, including a modern six-ton York refrigeration unit.

The laboratory includes such equipment as glassware, Babcock testers, centrifuges, separators and other necessary equipment for the proper testing of milk and its products.

# DRAWING.

This department is located on the fourth floor of the Academic Building. It occupies four large drawing rooms, two recitation rooms, offices, etc., all of which are especially well ventilated, heated and lighted.

The department is fully equipped with necessary furniture, models, plaster casts, life-size statues, etc.

For illustrative purposes there is in use in the department all modern apparatus for the draftsman, such as electric blue printing machine, universal drafting machine, pantograph, ellipsograph, etc.

A reference library of the best works on drafting, illustrating, etc., is kept in the department for the convenience and use of students.

# ELECTRICAL ENGINEERING.

The electrical engineering laboratories comprise three electrical machinery laboratories, two measurements laboratories, a standardizing laboratory, a photometric laboratory, a storage battery room, a storage battery repair room, a communication laboratory for telephone, telegraph and radio work, a work shop, two rooms for building and repairing electrical machinery, and an instrument room.

# 60 AGRICULTURAL AND MECHANICAL COLLEGE OF TEXAS.

The electrical laboratories are supplied with 2300 volt, three-phase, 60-cycle power from the College power station. Alternating current at 110 and 220 volts is obtained through transformers. Direct current is supplied by two motor-generator sets located in the machinery laboratory. The smaller set consists of a 2300-volt, 50-horse power induction motor direct connected to a 35 kw., 125-volt, compound wound direct current generator. The larger set consists of a 2300-volt, 100horse power synchronous motor direct connected to two 35 kw., 250volt, Dobrowolsky, three-wire direct current generators, so arranged that they may be operated independently or connected in series for obtaining 500 volts. A 3-panel switchboard controls the above equipment and the feeders to the 6-panel switchboard used for the distribution of power within the machinery laboratories and to the switchboards located in the other laboratories. Throughout all laboratories the distribution of power is controlled by a plug-and-socket system, thus securing absolute flexibility.

The storage battery room contains a 110-cell Edison storage battery, with a mercury arc rectifier for charging. The batteries are connected through suitable control to the main distributing board.

The equipment of the machinery laboratories is as follows: Two street car motors mounted on a single shaft with prony brake attachment, and equipped with both a hand controller and a master controller operating an electro-pneumatic system; one 250-volt and one 500-volt direct current motor; one 5-horse power, 110-volt, direct current series motor with interpoles; one  $1\frac{1}{2}$ -horse power shunt generator; three 6 kw. compound wound machines; three 4 kw. compound wound machines; one 5 kw. direct current machine with four slip rings; four 5 kw. compound wound direct current generators with interpoles; four  $7\frac{1}{2}$ -horse power compound wound motors with interpoles; one  $7\frac{1}{2}$ -horse power Reliance variable speed motor; one 20-horse power and one 121-horse power direct current motor; one 121 kw., three-wire generator; one compensator variable-speed direct current motor; two 30 K. V. A. and two  $7\frac{1}{2}$  K. V. A. alternators; two 10 K. V. A. three-phase alternators with six slip rings; one 20 K. V. A. six-ring converter; one 8 K. V. A. converter; one 8 K. V. A. split-pole converter; one 10 K. V. A. three-phase generator driven by a set of two 10-horse power, three-phase induction motors, arranged for cascade operation; four motor generator sets, consisting of a direct current motor and a 3 K. V. A. alternator with six rings for single-phase, two or threephase; a number of single-phase and polyphase induction motors. There are a number of constant voltage transformers, a constant current transformer, and several types of automatic motor starters.

The high tension laboratory contains a 100 K. V. A. 200,000-volt transformer, with regulators for varying the voltage, a 125 cm. spark gap, a crest voltmeter with a number of auxiliary devices.

The electrical measurements laboratory has a full equipment of the apparatus needed for the study of the fundamentals of electrical meas-

urements. The equipment includes the following: Various types of Wheatstone bridges; a Kelvin double bridge; a Cary-Foster bridge; magnetometers, dynamometers; portable, semi-portable and wall galvanometers; astatic galvanometers; universal tangent galvanometer; calorimeters; sechometer; influence machine; electro-static apparatus; spark coils; apparatus for testing magnetic qualities of iron and steel; standard resistances; standard cells, physical balances; universal shunts; resistance boxes; variable inductances and capacities; portable storage batteries, and various minor equipment.

The standardizing room is equipped with a Leeds and Northup potentiometer and its accessories; Weston standard laboratory voltmeter, and milli-voltmeter with shunts; a Kelvin balance; Westinghouse precision ammeter, voltmeter, and wattmeter; and standard resistances and standard cells. In this room there are also a three-vibrator oscillagraph with photographic attachment, and a motor generator set consisting of direct current motor direct connected to a set of four alternators giving a fundamental wave, and the third, fifth and seventh harmonies, so arranged that any desired phase relation may be obtained between each of the harmonies and the fundamental.

The photometric laboratory has two dark rooms for photometric work proper. The equipment includes a station photometer; two illumination photometers; a Sharp-Miller photometer; a Flicker photometer; an integrating photometer consisting of an Ulbricht sphere two meters in diameter, with accessories, especially adapted for arc light photometry; rotating apparatus; a number of incandescent lamp candle power standards; and a collection of various arc lamps, and a number of units representing various indirect and semi-direct lighting systems. There is also a room for the demonstration and comparison of various light sources and systems.

The communication laboratory is equipped with central energy and magneto telephone switchboards, an automatic switchboard, and numerous types of telephones and parts; simple and duplex telegraph sets; radio telegraph and telephone instruments of various kinds; wave meters and decremeters, coils, condensers, tubes, etc., for building radio circuits. The department also maintains a complete radio station capable of communicating distances of 500 to 600 miles by radio telephone and distances of 1500 miles by radio telegraph. This equipment is available for study from both engineering and an operating standpoint.

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 been donated and installed in the laboratory for test and demonstration purposes.

The department also has 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 equipment for the students in electrical engineering is augmented by the fact that the direct connected generators in the powerhouse, their exciters and measuring instruments, and the motors used to operate the Textile School, machine shop, and other 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 urged to read the literature pertaining to their work, and for this purpose the department library is available. A reading table is maintained, on which are kept the current copies of a number of technical magazines. The technical books in the general library are also available to the students.

# ENTOMOLOGY.

The Department of Entomology maintains two laboratories, one of which is equipped with dissecting and compound microscopes, and the other with compound microscopes. In addition, the department maintains an insecticide laboratory equipped with the more important insecticides and spray machines, powder guns, etc.

The department has several insect models illustrating the anatomy of the more common insects, together with a series of charts illustrating the life histories of insects. This equipment is supplemented by a baloptican and several hundred lantern slides illustrating the anatomy and life history of the most important insects.

The equipment in apiculture consists of a bee house and workshop containing honey extractors, wax presses, wiring devices and different makes of bee hives. In addition to this, the department has a small apiary, where the student can familiarize himself with the practical operations of beekeeping.

For life history work, the department has an insectory equipped with breeding cages, a hydrothermograph, and all necessary equipment for working out the life histories of insects.

A library is maintained, which comprises two hundred and eighty volumes of technical books on Entomology. This library contains full sets of the Transactions of the American Entomological Society, Genera Insectorum, Journal of the New York Entomological Society, Entomological News, The Canadian Entomologist, and Psyche.

In addition, a reading table is maintained, on which are kept the recent publications on economic entomology and apiculture.

# FARM MANAGEMENT.

The department possesses detailed financial records of the business of many farms located in various parts of Texas and other States.

Files of the Crop Reporter, Market Reporter, Bureau of Labor Price Reports, U. S. Census, and many reports of farm management investigations, are contained in the department library.

62

Adding and calculating machines and slide rules are available for students working on special problems.

#### GEOLOGY.

The department of geology has been presented with a very valuable collection of minerals and rocks by Mr. F. W. Steber of Dallas, which will form a nucleus around which a representative geological museum of Texas rocks and mineral products will be built. This collection consists of many of the rarer rock-forming minerals, as well as a representative collection of the more important ores, especially Texas ores. The rock specimens include a great variety of igneous and metamorphic rocks, thin sections for microscopic examination, and a number of typical sedimentary rocks.

# HORTICULTURE.

The class-room work in horticulture is considerably strengthened by practical exercises in orchards, gardens, and laboratory.

There are now growing on the horticultural grounds orchards containing the standard varieties of peaches, pears, plums, pecans, persimmons, grapes, figs, blackberries and dewberries.

In addition to the commercial gardens, where vegetables are grown for use at the Mess Hall, there is a plat of ground that has been set aside on which a great variety of vegetables are grown under the direct supervision of the student.

There is maintained, in co-operation with the American Rose Society, a rose garden which, when completed, will contain about eight hundred varieties. There is also to be found on the horticultural grounds a rather complete collection of ornamentals.

The department has ample equipment for the control of insects and diseases, including various types of sprayers.

The collection of lantern slides owned by the department, which are used for illustrating different subjects, especially those in landscape art, is growing rapidly, there being now over nine hundred.

For work in plant propagation, in forcing early vegetables, in plant breeding, and in floriculture, the students have the use of one of the finest greenhouses to be found in the Southwest.

#### MECHANICAL ENGINEERING.

In the carpenter shop are excellent double work benches of special design, equipped with quick-acting vises, and the saws. planes, chisels, etc., ordinarily found in a carpenter's kit, each student having a set of edge tools assigned to him alone. Supplementing these are a number of special tools in the tool room.

The pattern shop equipment consists of pattern maker's benches, each equipped with vises, drawers, lockers, and outfit of hand tools; and in addition there is an assortment of special tools in the tool room, as well as a large number of small turning lathes, pattern maker's lathes, circular saw, band saw, and jointer.

The foundry is equipped with one dozen bench molding stands, with all necessary shovels, riddles and small tools, a number of floor molding kits, flasks of all kinds, a core machine, a core oven, a squeezer, a Combs gyratory riddle, a brass furnace with all necessary accessories, a No. 1 Whiting cupola with electric-driven blower for blast, and a Clark blast meter for measuring the amount of air supplied. The other accessories for this cupola are also included in the equipment.

The forge room equipment consists of one 250-pound steam hammer, emery wheels, forty new forges, all having power blast and exhaust, and a number of hand forges, the necessary anvils, tongs, and other small tools usually found in a forge shop. Besides oil and water baths, the equipment includes a pyroscope for observing the temperature of metals under heat treatment.

In the machine shop the equipment is very satisfactory. It consists of a full line of lathes, grinders, milling machines, automatic machines. The automatic machine is one of the most highly specialized machines for the rapid production of duplicate parts. The tool room contains a large assortment of taps, dies, drills, reamers, chucks, and other machine accessories, as well as the small tools for laying out work and accurately and properly measuring the same; calipers, micrometers, steel scales, punches, surface plates. Electric portable drills and grinder are also included in the equipment.

The engineering laboratory contains steam engines, gasoline engines, steam turbines, 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, weirs, pitot tubes, prony brakes, platform scales, etc., for conducting tests as outlined in course 403.

In addition, the laboratory has the use of all apparatus of the power plant, consisting of simple and compound engines, pumps of several different kinds; also the boilers of well known makes and different types. The equipment of the steam plant makes available larger engines, condensers, air compressors, air lift pumps, etc., for instruction purposes.

For the class-room instruction there are numerous full-size wooden and metal 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.

 $\mathbf{64}$ 

# MILITARY SCIENCE AND TACTICS.

The department has full equipment for Infantry, Field Artillery, Signal Corps, Cavalry, and Air Service, as follows:

Infantry.—The infantry is equipped with every piece of equipment that a regular army regiment of the United States Army has. This includes rifles, pistols, machine guns, automatic rifles, one-pounder guns, trench mortars, hand and rifle grenades, gallery rifles, infantry packs, ammunition for all arms, and field engineering tools. Besides these arms and equipment, the infantry has facilities at hand to use all of its equipment, including an indoor gallery range and a 1000yard outdoor rifle range.

Field Artillery .-- One 3-inch battery complete, consisting of four 3-inch guns, 8 caissons, 10 limbers, 2 battery and store wagons, 2 store limbers, battery reel cart, 90 horses, 4 mules, harness and saddle equipment for all horses, and all accessories, spare parts and tools; also included in the equipment are one 4.7-inch rifle with limber and caisson, one 155 mm. howitzer with limber and caisson, one 155 mm. rifle with limber and caisson, and one each of the American, British and French 75 mm. guns with limbers and caissons; one ordnance repair truck, complete; four motorcycles with side cars; two 5-ton caterpillar tractors; 2 F. W. D. ammunition trucks, one White reconnaissance car. The artillery equipment also includes four Browning machine guns, four automatic rifles and a complete supply of fire control instruments, such as B. C. telescopes, range finders, aiming circles, trench periscopes, prismatic compasses, sitogoniometers, and an assorted supply of smaller instruments, including drawing instruments, slide rules for field artillery computations, compasses and stop watches.

Cavalry.—Sixty sets of cavalry equipment, consisting of saddle, saddle blanket, bridle, saddle bags, rifle scabbard, lariats, picket pins, sabres, sabre scabbard, feed bags, grain bag, halter, and halter tie rope. Two pack outfits complete, consisting of aparejo, corona, manta, layer sling and lash ropes; sixty cavalry horses; two pack mules; four draft mules; one wagon escort; harness.

Air Service.—One airplane and accessories; one Liberty motor, complete; one Wright motor (Hispano-Suza), complete; one rotary motor, complete; tools for overhauling motors and repair of airplanes; machine guns, aerial; three types; aerial machine gun sights, bombing sights; dummy drop bombs; radio sets, ground and airplane; airplane instruments; airplane propellers, airplane radiators, magnetos, carburetors.

Signal Corps.—Radio telephones; radio telegraph; damped and undamped military telephones; automatic telephones and switchboard; storage batteries and charging plant for automatic telephones; service buzzers; buzzerphones; T. P. S. (telegraphic par sol) ground radio; Kellogg cross section open commercial switchboard; commercial telegraph sets; printing machine; repeaters; horse-drawn wire carts; motorcycles; trucks; tools and equipment for instruction in cable splicing; heliograph, flags, projectors; mechanical tools of all kinds for repairing technical equipment; literature and books for conducting technical courses in signal corps work.

#### PHYSICS.

The main lecture room of the Physics Building has a seating capacity of 250. It is equipped with amphitheater seats, motor-driven blinds for darkening the room, and with a large lecture table provided with gas, water, and an electrical switchboard. The blinds and lights of the room are controlled from the switchboard.

A smaller lecture room, having a seating capacity of 50, contains a lecture table equipped with water, gas, and a switchboard. Both of these lecture rooms are in direct communication with the preparation room.

The apparatus room of the first floor is equipped with a five-panel switchboard supplied with 110 and 220-volt, alternating current from the College power system, and with 110 and 220-volt, direct current from a 20 kw. motor-generator in the basement. By a plug-and-socket system either alternating or direct current can be distributed by individual lines to any part of the laboratories and to the lecture rooms.

One of the two laboratories of the first floor contains sixteen tables, each supplied with water, sink and gas. It contains also tables for sensitive balances. The other laboratory, designed for electrical measurements, is provided with numerous well distributed outlets for separate electrical lines to the switchboard.

The shop, also on the first floor, is equipped with a motor-driven planer, rip saw and drill press; stock material and the usual metal and woodworking tools.

The basement consists of one general laboratory, ten smaller laboratories for special work, and equipment room for the motor-generator, a storage battery room, a general storeroom, and a storeroom for chemicals.

In the two larger laboratories are fourteen tables mounted on masonrypiers which are free from the floor. These tables may be used either for general practice or for special work. Each table is supplied with gas and a separate electrical line to the switchboard.

Two of the smaller laboratories are black and suitable for photometric work. Another 40x20 feet is suitable for general experiments in light.

# RURAL SOCIOLOGY.

The department has an extensive library of State and Federal reports and bulletins, together with clipping files and books giving accounts of various forms of social work. It also has a number of maps and charts illustrating in a graphic manner many questions connected with community organization and development. Apparatus for working out the laboratory problems peculiar to this field are available.

Connections have been established by the department for giving the students practical contact with local and State social problems, especially in the field of community organization.

#### TEXTILE ENGINEERING.

For yarn manufacture there is ample equipment necessary to produce carded or combed yarns, and with it machines for making chain or slashed warps of either single or double yarns.

In the weaving room there are fourteen Northrop looms, which are entirely automatic, and two plain looms for ordinary plain goods. There are two ordinary dobby looms, with box motion to insert four colors for filling; one dobby loom for weaving terry towels; one dress goods loom, with dobby and boxes for making a seven-colored pattern; one loom for weaving narrow Jacquard dress goods, and one with Jacquard loom for weaving table covers.

The finishing machinery is for ordinary ducks, sheetings or drills, and consists of an inspecting machine, railway sewing and rolling machine.

# VETERINARY ANATOMY.

The laboratory of anatomy has a number of mounted and unmounted skeletons of the domestic animals, and about twelve sets of disarticulated skulls. There are a number of preparations of the muscles and ligaments, both dry and wet specimens. There are also preparations of the brain, eye, feet and other organs preserved in formalin and a number of charts and papier-mache models. There are the usual microscopes, microtomes, embedding apparatus, stains, reagents, and apparatus used in histology and embryology, and five sets of sections showing the embryology of the chick and the pig.

# VETERINARY MEDICINE AND SURGERY.

The class-room work, practice and clinics are largely conducted at the Veterinary Hospital, which has a large operating room equipped with operating tables for large and small animals, stocks, casting harness, and instruments for operations and treatment of diseases of live stock. A dispensary which is stocked with necessary drugs and biologics is maintained. Facilities for keeping records of each case are provided, and when complete are stored in fireproof vaults for future reference. There are wards for sick dogs and other small animals. Provision is made for isolation of animals with infectious diseases and transmissible skin diseases.

A large barn, 50x120 feet, is used for keeping horses, mules, cattle, sheep and goats which are being treated. There are also several other barns and small houses used for isolating animals. After animals are in condition that they do not need daily attention, they are turned in a large pasture to permit occasional treatment and observation until complete recovery takes place.

# 68 AGRICULTURAL AND MECHANICAL COLLEGE OF TEXAS.

The serum laboratory offers an unusual opportunity for students to become familiar with the preparation of anti-hog cholera serum, autogenous bacterins and other biologics.

Ambulance service for large and small animals is available; also automobiles for transporting students to see cases that cannot be brought to the College.

A post-mortem building with skylights, sanitary floor, hoisting apparatus and other equipment where post-mortem examination is made on all animals that die in the clinics and many dead animals from Bryan and surrounding country.

A slaughter house with sanitary floor, overhead tracks, hoisting apparatus, scalding vat, meat blocks and cold storage for teaching the slaughtering, cutting, curing and inspection of meat and meat products.

# VETERINARY PATHOLOGY.

The laboratory of pathology is reasonably well equipped for instruction in the courses given. The equipment consists of the usual sterilizers, incubators, paraffin-embedding oven, glassware, animals, stains, etc., to be used in pathology and bacteriology. In addition to the usual equipment, a museum, consisting of about 200 specimens of various pathological or disease processes and the more common parasites which infect the domestic animals is maintained.

# VETERINARY PHYSIOLOGY AND PHARMACOLOGY.

The physiology laboratory is well equipped with apparatus, reagents, chemicals, etc., for the proper instruction of physiological chemistry, experimental physiology, urine, blood, milk and gastric analysis, and for producing graphic records of the physiological processes of the body.

The pharmacy and experimental pharmacology laboratory is equipped with the apparatus, reagents, chemicals, etc., essential for a thorough training in the preparation of all the official and the more common proprietary medicinal preparations, and for experimental work in the determination of the action of drugs on the living body. It also includes the necessary apparatus for the examination of arsenic, limesulphur and other dips, which are commonly used.

The toxicology department is equipped with all the apparatus, drugs, chemicals, experimental animals, etc., essential to the proper study of the action of inorganic and organic poisons, and poisonous plants on the living animal, their detection and the treatment for them.

The apparatus consists of the necessary glassware, mortars, pill tiles, hot water funnels, torsion and laboratory balances, kymographs, pneumographs, plethysmograph tubes, ergographs, tambours, manometers, muscle levers, cardiac levers, saccharometers, urinometers, ureometers, indicanometers, hydrometers, electric centrifuge, electric water bath (for digestion experiments), respiratory and circulatory schemes, microscope, spectroscope, drug mill, steam still, suppository machine and mold,

tablet machine, triturate tablet molds and all other necessary equipment. The department also cultivates a garden of medicinal and poisonous plants, which are used in the above courses.

#### VOCATIONAL TEACHING.

The department of Vocational Teaching is located on the third floor of the Academic Building. One large section room has been converted into a model laboratory. It has been selected and equipped to serve as an example of a good type for high school agricultural departments. One end of the room is provided with stationary tablet chairs, the other end with movable tables and chairs. Two oak cabinets with sliding glass doors contain all the equipment needed for the laboratory work of a high school. These cabinets were designed in the department and are ideal for high school work. Other cabinets contain commercial exhibits, bulletins, and samples of threshed grains. A carpenter's tool box contains a model set of tools for farm use. Two large rat-proof boxes are filled with head samples of grains. A projection lantern cabinet occupies a convenient place in the room. Charts and farm and garden tools are displayed on the walls. Blackboard space, lighting, blinds, picture screen, and every detail of the laboratory serve as an exhibit of what the high school should have.

A second room contains the visual instruction material. Three cabinets are placed around the wall with space for two hundred and thirtytwo sets of lantern slides. Another cabinet contains the cartons of the package library, together with a large collection of illustrative catalogues. Some of the equipment found here are the mimeograph, mimeoscope, charting board, photographic reducing and enlarging apparatus, motion picture rewind, projection and motion picture machines and cabinet of lantern slides. A large photographic dark room is set aside in the basement for developing plates and films and for printing and enlarging pictures. It is equipped with electric light, running water, trays, chemicals, amateur printer, electric fan and washing and drying apparatus.

The offices contain the department library of books and bulletins. The newest and best books on vocational education are added from time to time. About twelve thousand bulletins are carefully catalogued and classified for ready reference.

The most valuable equipment of all consists of a rural consolidated school, located conveniently on the Campus, to which the pupils are transported in improved motor buses, and a community in which can be found all the problems of a teacher of vocational agriculture. Students get by observation and participation real experience in class room and community work.

# PART III admission, expenses

# ADMISSION

# GENERAL REQUIREMENTS FOR ADMISSION.

Entrance Blanks.—Requests for entrance blanks, and all communications in regard to admission should be addressed to The Registrar, Agricultural and Mechanical College of Texas, College Station, Texas.

Age, Health, Character.—The applicant for admission must be at least sixteen years old and physically able to perform the duties of a cadet. He must be free from contagious or infectious disease. If he comes from another college, he must present a certificate of honorable dismissal.

Vaccination.—The applicant for admission must present a certificate signed by a physician, in one of the forms given below:

1.		
	This is to certif	y thathas had smallpox
	(Signed)	, M. D.
2.		
	This is to certify	7 thathas been success-
fully	vaccinated at two	different times, the dates being
	(Signed)	, М. D.
3.		
	This is to certify	7 thathas been success-
fully	vaccinated within	the last five years.
	(Signed)	, М. D.
4.	······································	
	This is to certify	v that I have today vaccinated
		······
	(Signed)	, M. D.

#### ADMISSION.

## SCHOLARSHIP REQUIREMENTS FOR ADMISSION TO THE FOUR-YEAR COURSES.

Applicants for admission to the Freshman class who satisfy the general requirements noted above, may enter: (a) by *certificate of graduation* from an accredited secondary school; (b) by passing examinations in, the entrance subjects; (c) by State teacher's certificate (in part); or (d) by individual approval. See Methods of Admission below. The scholarship requirements for admission are expressed in terms of units, a unit representing a course of study pursued five hours a week for an academic year in an accredited secondary school, constituting approximately a quarter of a full year's work.

#### NUMBER OF UNITS REQUIRED.

Full Admission.—For full admission to the Freshman class the applicant must present fifteen approved units of secondary school credit, obtained by one or more of the methods indicated above, of which the six units in List A, below, are prescribed. The remaining nine units must be offered from the subjects included in List B.

Conditional Admission.—The applicant who presents the six units in List A and approved units from List B sufficient to make a total of at least thirteen units, obtained by one or more of the methods indicated above, may be admitted to conditioned Freshman standing, provided the authorities of the College are satisfied from the evidence presented that the applicant is fully qualified to carry the work of the Freshman year in a creditable manner. Conditions must be removed within two years after admission, either by passing entrance examinations in subjects not originally presented for admission, or by extra work in the College. In removing conditions by college work a course carrying three term hours credit per week for one year will count as the equivalent of one unit.

#### Subjects and Units Accepted for Admission.

LIST A. PRESCRIBED UNITS.

English	
Algebra	units
Plane Geometry 1	unit

#### LIST B. ELECTIVE UNITS.

English (4th unit)1	$\mathbf{unit}$
Mathematics:	
Solid Geometry $\ldots \frac{1}{2}$	unit
$\operatorname{Trigonometry}^{\widetilde{1}}$	unit
Advanced Arithmetic $\ldots \frac{1}{2}$	unit

History and Civics:

Ancient History1	unit
M. and M. History1	unit
English History $\frac{1}{2}$ or 1	unit
Amer. History $\frac{1}{2}$ or 1	unit
Civics $\ldots \ldots \frac{1}{2}$ or 1	unit
Sociology $\ldots \ldots \frac{1}{2}$	
Economics $\ldots \ldots \frac{1}{2}$	
Psychology $\ldots \ldots \frac{1}{2}$	$\operatorname{unit}$

Foreign Languages:

Latin	•		•	•	•	•	•		•	•	.2	to	4	units
French .	•		•		•		•	•	•		.2	to	4	units
German	•		•				•			•	.2	to	4	units
$\mathbf{Spanish}$	•	•	•	•	•	•		•	•	•	.2	to	4	units

Science:BiologyBotany1unitChemistry1unitGeneralScience1unitPhysics1unitPhysiography $\frac{1}{2}$  or 1unitZoology1unit

\*Vocational Subjects:

Special Requirements.—1. In the School of Engineering students not presenting solid geometry for entrance will be required to take that subject as an extra study in the second term of the Freshman year. Special classes will be formed for that purpose.

2. In the School of Agriculture, students not presenting physics for entrance will be required to take that subject as an extra study during the Freshman year.

Freshmen who are required to take an extra study may find it necessary to postpone one of the regular studies of the Freshman year. For this reason prospective students are urged to include solid geometry and physics in their high school course.

METHODS OF ADMISSION TO THE FOUR-YEAR COURSES.

The units required for admission to the Freshman class may be secured:

(a) By certificate of graduation from an accredited secondary school,

(b) By examination,

(c) By State teacher's certificate,

(d) By individual approval,

Or, by a combination of the above methods.

76

<sup>\*</sup>Not more than 4 units of vocational work will be accepted for admission.

#### ADMISSION.

#### (A) By Certificate of Graduation from an Accredited School.

Admission to the Freshman class by certificate will be granted to graduates of accredited secondary schools who present credentials certifying to their age, character, scholarship and graduation, provided the subjects certified have been approved by the State Department of Education and cover the entrance requirements. This certificate must give in detail concerning each subject which the applicant has studied in the school, the length of time in weeks, the number of recitations per week, and the grade or mark indicating his proficiency. Blank certificates may be had upon application to the Registrar.

If the number of units to which the certificate entitles the holder is less than the number required for admission, the deficiency must be made up by examination.

In the matter of admission to the Freshman class by certificate, no credit will be given for work done in an accredited school unless the applicant is a graduate of the school.

It is of the highest importance that the applicant send his certificate, properly filled out, to the Registrar in advance. If this cannot be done, he should bring it with him at the opening of the session. Without the certificate he cannot be admitted, and valuable time will be lost if he has to send for it after reaching College Station.

#### Accredited Schools.

The list of accredited schools prepared by the State Department of Education is official for this College.

The College will admit also, without examination, such graduates of schools fully accredited by the State universities of other States as comply with the requirements for admission indicated above.

#### (B) Admission by Examination.

Any or all of the scholarship requirements may be met by passing the entrance examinations.

The spring entrance examinations are held in May, under the supervision of the State Department of Education. These examinations are conducted in each county by the county superintendents, and the papers are sent to the State Department of Education to be graded. On the basis of these papers uniform Entrance Certificates are issued, which will be accepted for admission to any Texas College, provided the subjects certified cover the entrance requirements of the college to which application for admission is made. Under this system students are allowed to take examinations at the close of each high school year, in the subjects studied during that year, so that at the end of three or four years of high school work they should have from ten to fifteen entrance credits. Further information regarding the spring entrance examinations may be obtained from the State Department of Education, Austin.

#### 78 AGRICULTURAL AND MECHANICAL COLLEGE OF TEXAS.

Fall entrance examinations will be held at the College Thursday, Friday and Saturday, September 14, 15 and 16, 1922, under the supervision of the College authorities, and will cover all the subjects required or accepted for admission, as outlined above.

#### SCHEDULE OF FALL ENTRANCE EXAMINATIONS.

Note: Acceptable laboratory note books must be presented in connection with the examinations in science subjects.

Hour.	September 14.	September 15.	September 16.
8-10	Algebra, Agriculture,	Plane Geometry, Physiog-	Solid Geometry, Trig-
	Sociology.	raphy.	onometry, Drawing.
10-12	Botany, English, Manual	Physics, Latin, Stenography	American History, Book-
	Training.	and Typewriting.	keeping, Com. Arith.
1-3	Ancient History, Physiology.	M. and M. History, Biology, Psychology.	English History, General Science, Com. Law.
3- 5	Civics, Chemistry, Public	French, Adv. Arithmetic,	German, Spanish,Zoology,
	Speaking.	Economics.	Com. Geog.

### (C) Admission by State Teacher's Certificate.

Applicants holding a *first-grade* State teacher's certificate, or a high school certificate of the second class, obtained by examination, may receive entrance credit not to exceed nine units, depending upon the subjects in which examinations were taken to secure the certificate. The remaining units necessary for full or conditional admission must be made up by passing entrance examinations in other subjects, included in Lists A and B, above.

Applicants holding a *permanent* State teacher's certificate obtained by examination may receive entrance credit not to exceed thirteen units, subject to the conditions that govern the granting of credit to holders of first-grade certificates.

# (D) Admission by Individual Approval.

An applicant over twenty-one years of age, who has not recently attended school, and who cannot otherwise satisfy the entrance requirements, may be admitted to the Freshman class without examination, subject to the following regulations:

(1) He must make application on the official entrance blank.

(2) He must furnish evidence that his preparation is substantially equivalent to that required of other applicants, and that he possesses the ability and seriousness of purpose necessary to pursue his studies with profit to himself and to the satisfaction of the College.

(3) He must show, by a test in composition, that he has an adequate command of the English language.

The applicant should forward his credentials to the Registrar in advance of his coming, but in no case will he be admitted without a personal interview.

A student admitted by individual approval will not be considered

#### ADMISSION.

a candidate for a degree until he has satisfied the entrance requirements. Upon completion of English 103-104 such student will be given credit also for three entrance units in English; upon completion of Mathematics 101-102, 103 and 104 he will be given credit for two entrance units in algebra and one in plane geometry. For each additional Freshman and Sophomore subject passed with a grade of B or A, a credit of one entrance unit will be given. At the end of the Sophomore year such additional units as are needed to satisfy the entrance requirements in full must be made up by taking entrance examinations.

#### ADMISSION TO ADVANCED STANDING.

Admission to advanced standing may be granted under the following conditions:

(1) The applicant must submit a letter of honorable dismissal from the institution last attended.

(2) A certificate of preparatory work, covering the entrance requirements of this College must be presented.

(3) An official transcript of the record of all work done in institutions previously attended must be submitted, together with a marked catalogue showing the courses referred to in the transcript.

On the basis of these credentials credit will be given in this College in so far as the work previously completed is equivalent in character and extent to subjects included in the course of study pursued here. Credits given by transfer are provisional and may be cancelled at any time if the student's work in this College is unsatisfactory.

It is essential that all credentials be forwarded to the Registrar in advance.

College credit for work done in secondary schools will be given only on the basis of examinations at the College, and shall not include work presented in satisfaction of the entrance requirements.

#### ADMISSION OF SPECIAL STUDENTS.

At the discretion of the Dean of the College, a limited number of young men over twenty-one years of age may be admitted to the College as special students, subject to the following regulations:

1. The applicant must show good reason for not taking a regular course, and must submit satisfactory evidence that he is prepared to profit by the special studies he wishes to pursue.

2. A record of his preparatory work must be submitted on the official entrance blank, and must be accompanied by a statement showing (a) his experience; (b) a plan of study, enumerating the studies he desires to pursue; and (c) the purpose or end expected to be accomplished by his study.

3. In order to be admitted to the work of any department, a special student must secure the consent of the head of the department; and

his course of study, as a whole, must be approved by the Dean of the College.

Special students are subject to the rules and regulations governing regular students, and are required to take the prescribed theoretical and practical military training.

A special student who may desire to become a candidate for a degree must satisfy the entrance requirements and obtain the consent of the Dean of the College.

It is the theory of special classification that students should be particularly strong and well prepared to do thorough work in the studies selected. A high standard of scholarship will, therefore, be required of all who are thus classified.

# REQUIREMENTS FOR ADMISSION TO THE TWO-YEAR COURSES.

1. The minimum age for admission to a two-year course is 18 years, except in the case of graduates of non-accredited schools, who may be admitted at the age of 16 years.

2. The applicant must present a certificate showing the satisfactory completion of the tenth grade of a classified school, or its equivalent. He must also present satisfactory certificates in regard to health, character and vaccination, as in the case of candidates for admission to the four-year courses. The completion of one of these two-year courses does not prepare the student for admission to a four-year course.

3. The two-year courses are not open to candidates who are qualified to enter a four-year course.

#### REGISTRATION.

Upon arrival at the College, young men intending to enter will report at once to the Commandant's office for full information in regard to registration.

#### SESSION.

The session begins on the third Wednesday in September and extends through thirty-seven weeks.

Monday, Tuesday, Wednesday and Thursday, September 18, 19, 20 and 21, will be devoted to the registration of students. Recitations will begin Friday, September 22.

#### ADMISSION.

#### EXPENSES.

#### REGISTRATION FEE.

Every student is required to register when he first enters the College and thereafter at the beginning of each term.

Upon registering for the first time he is charged a registration fee of five dollars. He pays this fee only once unless his connection with the College should later be severed; in that case he must pay the registration fee again in order to re-enter.

#### LATE REGISTRATION.

All students, except those registering for the first time, who do not complete their registration on the days set for that purpose, will be charged a fee of five dollars for late registration.

In the case of irregular and special students, registration is not complete until their assignment cards are returned, properly signed, to the Registrar.

EXPENSES FOR THE SESSION.

The fixed charges are:

Trust fund, payable on entrance.\$ 5 00Incidental fee, payable on entrance.10 00Medical fee, payable on entrance.10 00Student activities fee.15 00Maintenance fee, first term, payable on entrance.125 00		
	\$165	00
Maintenance, second term, payable February 3	120	
	\$285	00
Other necessary expenses are:		
Uniform, payable on entrance, about\$ 78 50		
Books, from \$15 to		
Laboratory fees, averaging about 10 00		
Fee for delivering baggage 1 00		
The for derivering baggage	\$114	50
Total	\$399	50

For Freshmen in the engineering courses, drawing instruments, about \$15.

The new student will need at entrance approximately \$300.

Payment.—Payment should be made by bank exchange, money order, or in cash. Personal checks will not be accepted.

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. *Deductions.*—No deductions will be made for entrance within 15 days after the opening of a term, nor will there be any refunds for the last 15 days of a term or the last 15 days paid for.

Trust Fund.—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, or if he is not otherwise indebted to the College. If charges amounting to 50 per cent of the trust fund deposit are made against a student during the session, he will be required to make an additional deposit covering the total charges made against him.

Incidental Fee.—The incidental fee is used for sundry incidental expenses, such as printed forms, examination books, etc.

Medical Fee.—The medical fee covers the professional services of the College Surgeon and the hospital staff. The medical fee for the second term is one-half the medical fee shown above.

Student Activities Fee.—The student activities fee is for the support of student activities, and by a practically unanimous vote of the student body this fee has been fixed at \$15. This fee is paid at registration along with other fees, but it is not compulsory. A student entering after the Christmas holidays will pay only \$9.25. On payment of this fee a student is entitled to be admitted to all intercollegiate and interscholastic contests held at College Station, to receive a copy of the Longhorn, the college annual, and one annual subscription to the Battalion, the student college publication, throughout the scholastic year.

No Refund.—Incidental, medical, and registration fees will in no case be refunded.

Maintenance Fee.—Maintenance includes board, fuel, laundry, light, room rent, single bedsteads, mattress, tables, washstands, chairs.

Each student is required to keep on hand a supply of bed clothing for single beds, towels, etc.

Laboratory Fees.—The laboratory fees cover in part the cost of materials used by the student in his laboratory work. The total amount of these fees varies according to the classification of the student. The fees for the several courses are listed under "Courses of Instruction by Departments." They are payable during registration, at the beginning of each term.

Uniform Deposit.—The deposit of \$78.50 for uniform is not required of Juniors and Seniors who are not members of the R. O. T. C.

Forfeiture on Withdrawal.—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 Surgeon before the student can receive the balance of his maintenance fund.

Graduate Students.—The expenses of a graduate student are \$25 for registration fee, incidental fee and medical fee, with charge for main-tenance as above.

Day Students.—Day students pay \$30, to cover registration fee, trust fund, incidental fee, and medical fee as above.

Officers of the College.—Officers of the College taking courses of instruction pay the registration fee, \$5.00, and the incidental fee, \$10.00.

*Deposits.*—Deposits may be made with the Fiscal Department. Depositors will draw their money by giving receipt direct to the Fiscal Department as money is required. Deposits and withdrawals must be given in even dollars.

*Checks.*—A graduated collection fee will be charged on all out-oftown collections, except bank exchange, postal money orders and express money orders. Checks or drafts that have been altered in any way will not be accepted.

Unpaid Checks.—If a check or draft accepted by the Fiscal Department for collection is returned unpaid by the bank on which it is drawn, the student presenting it will be required to pay a fine of \$3.00. If this fine and the amount of the check are not paid within seven days after notice is sent from the Fiscal Department, the student will be required to withdraw from College.

Duplicate Receipts.—A fee of 50 cents will be charged for duplicate receipts.

#### UNIFORM.

Every cadet must keep on hand and in good condition one regulation, olive drab woolen serge blouse, one pair olive drab woolen serge breeches, one regulation olive drab cap with ornament, one regulation service hat with silk cord, two olive drab woolen shirts, two olive drab cotton shirts, two white shirts, cuffs and soft rolled collar attached, two pairs tan leather shoes, one regulation black four-in-hand tie, one regulation waist belt, one regulation Sam Browne belt, one pair spiral leggins, two pairs cotton khaki breeches, one set collar ornaments, one pair lapel insignia, three R. O. T. C. shields, one gold star, one working suit and an ample supply of underwear.

In the interest of comfort and economy every cadet is advised to provide himself with the regulation O. D. overcoat.

PART IV courses of study

# COURSES OF STUDY.

There are thirteen regular courses, extending through four years; eleven of them lead to the degree of Bachelor of Science, the particular course pursued being specified in the diploma; the course in Veterinary Medicine leads to the degree of Doctor of Veterinary Medicine; and there are graduate courses and short courses as shown below.

#### REGULAR COURSES.

- I. Course in Agriculture.
- III. Course in Mechanical Engineering.
- IV. Course in Civil Engineering.
- V. Course in Electrical Engineering.
- VI. Course in Textile Engineering.
- VIII. Course in Chemical Engineering.
  - IX. Course in Architecture.
  - X. Course in Science.
  - XI. Course in Veterinary Medicine.
- XII. Course in Agricultural Education.
- XIII. Course in Industrial Education.
- XIV. Course in Agricultural Administration.
- XV. Course in Agricultural Engineering.

#### GRADUATE COURSES.

(A) Graduate courses leading to the degree of Master of Science, in Agriculture, in Agricultural Education, in Architecture, or in Veterinary Science.

(B) Graduate courses leading to the degree of Chemical Engineer, Civil Engineer, Electrical Engineer, Mechanical Engineer.

#### TWO-YEAR COURSES.

- (C) Course in Agriculture.
- (H) Course in Textile Engineering.
- (M) Course in Agricultural Engineering.
- (N) Course in Engineering.

#### EIGHT WEEKS' COURSE.

Course in Automobiles and Tractors.

#### THE SCHOOL OF AGRICULTURE.

In the School of Agriculture there are offered the following courses:

#### REGULAR FOUR-YEAR COURSES.

Course in Agriculture.

Course in Agricultural Administration. Course in Agricultural Education.

#### TWO-YEAR COURSES.

Two-year Course in Agriculture. Two-year Course in Agricultural Engineering.

#### SHORT COURSE.

Eight Weeks' Course in Automobiles and Tractors.

#### COURSE IN AGRICULTURE.

The regular four-year course has as its main object the preparation of young men for the business of farming, for the pursuit of scientific investigation along some line of agriculture, for becoming county demonstration agents, or extension workers, for specialists in landscape art and for teaching in the high schools and agricultural colleges. It also affords excellent preparation for young men who intend to follow business pursuits, especially for merchants and bankers. Systematic training is given in the sciences of biology, chemistry, entomology and geology, which are fundamental to the study of scientific agriculture, and in technical subjects, covering the main divisions of agriculture, including agricultural engineering, agronomy, animal husbandry, dairy husbandry and horticulture. As shown in the curriculum, the work in the Junior and Senior years is arranged so as to provide for a choice by the student of one of eight groups of studies. This arrangement affords the student a wide range of subjects from which to choose his major work, permitting him to specialize in agricultural chemistry, agricultural education, agricultural engineering, agronomy, animal husbandry, dairy husbandry, horticulture, or in landscape art.

As will be noted, certain studies are common to all the groups; and in each group a part of the work is elective. The choice of groups is to be made by April 15 of the Sophomore year.

#### COURSE IN AGRICULTURAL EDUCATION.

The purpose of the course in Agricultural Education is to prepare men to teach agriculture in secondary schools and to administer and supervise vocational agriculture such as is carried on under the Smith-Hughes Act. The fundamental principles in the main divisions of agriculture, and a minimum of professional training and practice teaching are required. Considerable opportunity is given the student by means of the electives for choice of subjects. In case of students transferring from other institutions and entering the course in Agricultural Education, the electives are not limited to the courses offered by the School of Agriculture. Such credit and classification will be given as the facts may warrant. Agricultural students who have completed the junior year in the State Normal Schools, and graduates of the Junior Agricultural Colleges can transfer to this course with little or no loss of time.

Graduates of approved institutions having satisfactory training in the sciences underlying the study of agriculture will be awarded the degree of Bachelor of Science in Agricultural Education upon satisfying the following requirements: forty-five term-hours of technical agriculture as approved by the Professor of Vocational Teaching, fifteen term-hours of professional subjects as prescribed in the curriculum, and at least a year's residence. Candidates for admission under this provision must present their credits in advance.

The great demand for skilled teachers and administrators of vocational agriculture in every State should make this course appeal to young men with good science training, farm experience, and successful experience in teaching and administering schools.

#### COURSE IN AGRICULTURAL ADMINISTRATION.

The course in Agricultural Administration is designed primarily for those interested in the business and social side of agriculture and of country life, rather than in the purely productive side.

It offers students the opportunity to prepare themselves for work as business farmers or stockmen; specialists in the several aspects of marketing; extension workers; agricultural statisticians; business interprises related to agriculture, such as that of the banker, hardware dealer, grain dealer, cotton warehouse superintendent, farm manager, rural social worker, minister; and teacher of rural economic and social science. The course is designed further to serve the needs of those who might be interested in the knowledge of our rural resources in relation to their economic utilization.

The work of the Freshman year is prescribed. For the subsequent years the course is divided into three groups, which are designated, respectively, as Agricultural Economics, Rural Sociology and Farm Management.

#### TWO-YEAR COURSE IN AGRICULTURE.

This course is intended for young men who wish to spend one or two years in preparing to go back to the farm and apply 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 includes much of the technical work required in the four-year course. In the 90

first year, the studies are all prescribed; in the second year, they are elective. The electives must be chosen under the advice and direction of the Dean of the School of Agriculture. Students who have had approved farm experience will, upon completion of this course, be awarded certificates.

#### TWO-YEAR COURSE IN AGRICULTURAL ENGINEERING.

This course is designed, primarily, to meet the needs of the student who wishes to specialize in the engineering side of agriculture. It will especially prepare students for farm work where a great deal of machinery and equipment is used and for the farm implement and tractor business.

The use of improved farm machinery, gas engines, tractors, and engineering as applied to agriculture, is becoming of greater importance each year in the development of the agricultural interests of the State.

Students who have an aptitude for mechanics and who are interested in agriculture will find this course well suited to their needs.

#### EIGHT WEEKS' COURSE IN AUTOMOBILES AND TRACTORS.

The object of this course is to prepare men to become operators of tractors and tractor-operated machinery, or to become tractor, automobile and motor truck mechanics. The course is intensely practical.

The subjects covered are single cylinder gas engines, tractors, chassis, babbitting, soldering, acetylene welding, electrical ignition, starting and lighting, multiple cylinder motors, repair, adjustment and troubles.

Admission Requirements.—In order to enter this course the applicant must be at least eighteen years of age; it is desirable, though not required, that he have a grammar school education. He must present a certificate from some reliable person, showing that he is in good standing in the community from which he comes.

During the summer session the minimum age requirement for this course is 16 years.

Expenses.—The fixed charges are:

Incidental fee\$	5	00
Medical fee	5	00
Maintenance, including board, room, lodging and	-	
laundry	56	00
Laboratory fee	60	00
Total\$	126	00

(The charges for this course are subject to change due to variation in cost of maintenance and operating expenses.)

Registration Dates.-New classes in this course are formed about

every two weeks. The first course for the session 1922-23 will open September 20. Students should notify the Registrar of their intention of entering some time in advance of the opening date. For special circular describing this course write the Professor of Agricultural Engineering.

Advanced Work.—Students who have completed the eight weeks' course and who wish to specialize in one of the branches of the eight weeks' course may do so by taking special work for four or eight weeks. The fees for this work will be at the same rate as those of the regular eight weeks' course.

Students may enroll for this advanced work on the approval of the Dean of the College and of the head of the Agricultural Engineering Department.

## THE SCHOOL OF ENGINEERING.

#### COURSES OF STUDY.

In the School of Engineering there are offered the following courses:

#### REGULAR FOUR-YEAR COURSES.

Course in Agricultural Engineering. Course in Architecture. Course in Chemical Engineering. Course in Civil Engineering. Course in Electrical Engineering. Course in Mechanical Engineering. Course in Textile Engineering. Course in Industrial Education.

#### TWO-YEAR COURSES.

Two-year Course in Engineering. Two-year Course in Textile Engineering.

#### COURSE IN AGRICUL/TURAL ENGINEERING.

The course in Agricultural Engineering is designed to give the student an engineering training with an agricultural viewpoint. A thorough grounding in fundamental engineering principles is given, as much time is devoted to purely agricultural subjects as possible, and the application of engineering to agriculture receives its share of attention.

The need of such engineers is being felt more and more each year as the demand grows for farms to be better equipped with power machinery, farm buildings and home conveniences and more land to be reclaimed by drainage, irrigation and clearing.

Graduates of this course are prepared for service in the following lines: with the colleges and government in teaching, extension and Experiment Station work; with manufacturers of farm machinery, gas engines, tractors, other farm equipment and farm buildings, in advertising, sales and designing work; with engineering and contracting firms doing irrigation work and drainage work; and with farm and trade journals.

#### COURSE IN ARCHITECTURE.

The course in Architecture is planned to give a thorough training in the arts and sciences which form the foundation work necessary for the design and construction of buildings. Practice courses are arranged to go hand in hand with the theory taught, serving to fix in the student's mind the proper application of theory to practical problems and also preparing him to become upon graduation of immediate usefulness as an architect's assistant. The course is arranged in two groups: Group 1, General Course; Group 2, Structural Course. The Freshman year is the same in both groups, while the Sophomore, Junior and Senior years are arranged, in the General Course, to give a broad general training in design and construction, with special emphasis placed upon design; and, in the Structural Course, to give a minimum of pure design and a maximum of theory and practice in the structural side of building.

Students possessing an aptitude for arrangement, proportion and harmony are advised to elect the General Course, while those who are inclined more to mathematics and the engineering side of building are advised to elect the Structural Course.

Graduates in Architecture find positions as draftsmen, designers, superintendents or general assistants in architects' offices; in the architectural and engineering departments of railway and business corporations; in construction companies in the Civil Service of the government, and in State and municipal employment. Three to four years of progressive practical experience should fit the young architect to enter the active practice of his profession. Ability, integrity, tact and resourcefulness will be the determining factors in his success. Modern building is an extremely complicated industry and the duties of the architect, as the designer and adviser in building operations are exacting and complex. One man cannot be expert over the whole field, and hence partnerships are desirable. It might be pointed out that the two courses of study given in this department naturally lead to the formation of partnerships between individuals of the two groups.

#### COURSE IN CHEMICAL ENGINEERING.

This course is designed to prepare young men for technical work in those industries in which raw materials undergo a chemical change in the process of manufacture. Many fields are open to students trained in applied chemistry, and inquiries are continually being received asking for men capable of filling important positions in different industries. Some industries important to the present and future development of this State are those dealing with cotton seed products, sugar, leather, petroleum, cement, ceramics, and iron and steel. The analytical chemistry given in the course is sufficient to enable the graduate to engage in the work of a commercial plant or to enter an industrial plant as a control chemist. The control chemist repeatedly analyzes and evaluates the raw material used in the manufacture as well as the intermediate and finished products. It is through such control that industries of this kind have been made scientific. Pure food laws and other legal enactments calculated to protect the people against fraud have, of late years, greatly accentuated the importance of this work. At the same time enough work is given in general engineering practice to enable the graduate who enters the works as a control chemist to come in time to a full understanding and mastery of the industry in which he is engaged.

The fifth year's work, leading to the degree of Chemical Engineer, is designed to facilitate the transformation of the control chemist into the manager of an industrial plant, capable of adapting chemical processes of varying conditions and improving upon them as occasion demands.

#### COURSE IN CIVIL ENGINEERING.

The course in Civil Engineering has for its object the thorough grounding of young men in the underlying principles of engineering as a preparation for their technical work after graduation. The fundamentals of good citizenship are also stressed as these concern the future relationships of practicing engineers to their surroundings. As many special lines are touched on as time will permit. Preliminary field and office work, specification and contract writing, the letting of contracts, supervision of construction, the preparation and presentation of designs and reports, etc., are all treated in as much detail as possible in the time available. The course is divided into two groups: (1) General civil engineering, and (2) highway and municipal engineering.

The objectives of the general civil engineering course are many and varied. Among them may be mentioned professional practice in surveying, water supply, sewerage and sewage disposal; railway location, construction and maintenance; the design and construction of dams, reservoirs, irrigation systems, pumping plants, drainage and navigation canals, wharves and docks, levees, river regulation; foundations, masonry structures, steel and reinforced concrete bridges, steel and reinforced concrete building construction and others.

Graduates in the highway and municipal engineering group are prepared for service in the highway departments of States, counties, road districts, city engineering departments, with consulting engineers, contractors engaged in road and pavement construction, road machinery supply houses, waterworks and sanitary engineers and contractors, etc.

A well equipped laboratory for the study of bituminous pavements and paving materials affords not only a means of up-to-date instruction for students, but opportunity for co-operative work with cities in the investigation of their pavements and available paving materials. Connected with it is an excellently equipped testing laboratory for nonbituminous road materials.

The fifth year's work, leading to the degree of Civil Engineering (C. E.), 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. Every student who can afford the time and money is urged to follow his four-year course, when possible, with the more technical work of the fifth year.

On page — there is given a list of courses from which the fifth-year student will ordinarily be expected to select his studies, but the subjects selected must be such as to form a consistent group. In so far as practicable the subjects approved will be such as will best fit the needs of each particular candidate for the advanced degree.

#### COURSE IN ELECTRICAL ENGINEERING.

The course in Electrical Engineering is designed to give the student a thorough training in the underlying principles of direct and alternating current phenomena and of electric measurements. It provides training in subjects fundamental to the general practice of the engineering profession, in the theory of electricity, and in the application of the theory to practical problems in many branches of engineering.

The work of the first three years of the course is intended to cover most of the fundamental principles of engineering. This is followed in the senior year by a more detailed study of the application of these principles. The applied subjects are taught with two objects, the first and more important of which is to impress more firmly on the student's mind the principles already learned. The second object is to give the student specific information about some branch of electrical engineering.

Electrical Engineering presents broad opportunities for the young man trained to meet its needs. A few of the fields into which he may enter are outlined below:

The electric power plant in a community has come to be considered the source of energy not only for the lighting of the buildings and streets, but for the operation of all kinds of machinery ranging in size from the largest factory to the sewing machine and the vacuum cleaner. It has come to be recognized that technically trained engineers are needed not only for the more highly technical positions in the organization of the central stations, but that by virtue of their technical knowledge they are also best qualified for practically every position of responsibility in such organizations.

The utilization of electrical energy by manufacturing organizations has necessitated the employment of electrical engineers to design the installation of the electrical machinery and supervise it when it is in operation.

The electric railway industry is another field in which electrical engineers are required, and the electrification of steam railroads has created a demand for electrical engineers to supervise the electrical equipment used in the production of the power and operation of the trains. The electrification of railroads is in its infancy but the decided gain in efficiency from operating with electricity instead of steam will cause a steady increase in the number of roads to be electrified.

The telephone and telegraph companies have always used a limited number of electrical engineers but with the greater complexity of electrical devices which are displacing the simpler systems, trained engineers are in demand not only for the more highly specialized positions, but also for administrative and executive positions where a knowledge of electrical engineering is becoming important. Radio engineering is a new field for electrical engineers which, while comparatively new, bids fair to become of considerable importance.

Many electrical engineers are needed in organizations engaged in the manufacture of electrical machinery and in its sale and erection.

There are a great many other subdivisions such as that of the illuminating engineer, the signal engineer, the battery engineer, and a score of others which offer excellent fields for men with proper training.

The course is outlined with a view to giving a young man such fundamental principles of electrical engineering and such mental development and faculty of analysis, as will enable him to rise to a position of responsibility in any one of the principal fields of electrical engineering.

A Signal Corps unit of the Reserve Officers' Training Corps has been established at the College, and electrical engineering students who elect to become members of this unit have an opportunity to receive thorough instruction in telephone, telegraph and radio engineering in addition to their other engineering work. For use in the Signal Corps work, the government has supplied a complete assortment of modern equipment.

A branch of the American Institute of Electrical Engineering has been organized among the students and affords the means of keeping students in touch with the latest development in the electrical field.

#### COURSE IN MECHANICAL ENGINEERING.

The course 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 and industrial plants, equipment, etc., and to manage or to operate the same with the greatest economy of labor and materials.

It is not possible to give the student that skill in the shops and that experience in the laboratories which come with long service in practical work, but the aim is to give him the power to understand and apply the underlying principles which are involved in all problems met with in practical engineering.

When it is remembered that there is a steam power plant or other mechanical equipment connected with practically every industrial enterprise it is apparent that the graduates from the course in Mechanical Engineering should find a large field for their activities in the industrial development of the State. While the chief aim of the curriculum is to give a thorough grounding in the fundamentals it is possible for the student, by group selection in his senior year and by selection of his electives, to specialize along the lines of his choice. The group arrangement of the senior year enables the student to specialize in power plant work, in transportation and railway mechanical engineering, or in factory management and industrial engineering. The electives enable the student to specialize in cotton seed oil industry, or in petroleum industry. The training at the College, followed by a few years' contact with the practical work, should fit one to take charge of the operation or of the management of almost any industrial enterprise whether strictly mechanical engineering or involving other activities as well.

Included in the field of the graduate from this course are railway motive power, automotive, and marine transportation, refrigeration, steam and oil engine power equipment, heating and ventilation, iron and steel production, and fabrication, machine tool industry, lumber production and utilization, factory management, production and refining of petroleum, and almost unlimited other lines.

#### COURSE IN TEXTILE ENGINEERING.

The object of this course is to prepare young men for entering the field of cotton 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 it is believed that cotton manufacturing will develop as rapidly as skilled and capable managers familiar with local conditions are 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 possible in the time available.

Graduates from this course are prepared to enter the cotton mills to operate any machinery. After a study of labor conditions and requirements they are in line for positions of overseers, superintendents and managers. Graduates may also find employment in the fields of mill engineering and architecture, installation of equipment, dyeing and the sale of machinery and supplies.

#### COURSE IN INDUSTRIAL EDUCATION.

The course in Industrial Education has for its main purpose the preparation of teachers of related subjects as prescribed for industrial education under the Smith-Hughes Act. Graduates of this course will be prepared not only to teach related subjects but to teach the regular shop work ordinarily given in the high schools of the State, and to direct or supervise industrial education in large city school systems. The course requires contact with a wide range of trades through its shop work and a liberal education in science, mathematics, history, English, etc. Thorough preparation in the art of teaching and supervising is afforded. The wide range of electives permits the student to specialize in some trade, or to do more extensive work in a wide field.

The State plans for requirements of teachers of related subjects in classes using Federal funds under the provisions of the Smith-Hughes Act specify that the teacher must have had at least 880 hours of experience in at least two trades. This is to insure adequate contact with shops operated on a commercial basis. Students in this course are expected to get this experience through summer work following the sophomore year and the junior year. The Department of Vocational Teaching will assist in arranging for this work.

#### TWO-YEAR COURSE IN ENGINEERING.

This course is intended for those who are unable to take a four-year course but who wish to prepare themselves for positions of responsibility along engineering lines.

The course is designed particularly for young men who have had some practical experience in a power house or in electrical work and who wish to add to their theoretical knowledge of the fundamentals of steam engineering and electricity. The entrance requirements are made low to allow any deserving applicant to enter but any additional preparation or training will enable him to profit more from his course.

#### TWO-YEAR COURSE IN TEXTILE ENGINEERING.

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

The aim is to prepare young men for responsible positions in a cotton mill after a short term of apprenticeship. A limited number of students taking this course will be given employment during their vacant periods in operating the equipment of the department, which is turning out a commercial product. In this way students are encouraged to devote a good deal more time to the operation of the machinery, which should better fit them for their career in the mill and at the same time help to pay their expenses in college. Certificates will be given students who complete the work as outlined.

Students completing this course are fitted in a limited way for the same fields that are open to graduates. They will be very much restricted in the field of dyeing and mill engineering and architecture.

#### THE SCHOOL OF VETERINARY MEDICINE.

#### COURSE IN VETERINARY MEDICINE.

This course has for its object the systematic training of young men in all matters pertaining to diseases of domestic animals.

The freshman and sophomore years are, in large measure, devoted to those physical and biological studies that contribute so much to an understanding of the problems of health and disease. The junior and senior years are almost entirely devoted to studies of a technical nature.

Those who expect to engage in ranching, dairying or some other branch of animal industry will find the course of great value to them in preventing serious losses from disease or mismanagement of their animals. Those who possess a biological mind will find it an interesting life study, and such men are in great demand in matters of public health or as investigators in Experiment Stations. Those who pursue the course from commercial motives will find its rewards are similar to those of any other form of human endeavor in that these will always be in proportion to the intelligence and energy displayed by the individual.

When it is recalled that the value of domestic animals in Texas is about five hundred million dollars, it becomes apparent that men informed on such matters will be of great value to the State.

#### COURSE IN SCIENCE.

#### Administered by the Dean of the College.

The course in science is planned to provide a broad training in natural sciences, including biology (bacteriology, botany, zoology), chemistry, entomology, geology, and physics; and to impart a familiarity with the methods of science.

A considerable part of the curriculum is devoted to such general studies as economics, English, history, mathematics and sociology, which are essential to a liberal education; and there is correspondingly less emphasis on the vocational or professional aim.

Graduates of this course should be qualified to take up scientific work in the service of the State or Federal Departments of Agriculture or of Agricultural Experiment Stations; to enter upon advanced work along scientific lines; or to become teachers of science in secondary schools.

The course also affords an excellent preparation for the study of medicine.

### GRADUATE COURSES.

Administration.—The regulations concerning graduate studies and all matters relating thereto are administered by the Committee on Graduate Studies.

Advanced Degrees.—The College offers graduate courses leading to advanced degrees as follows: Master of Science (M. S.), Chemical Engineer (Ch. E.), Civil Engineer (C. E.), Electrical Engineer (E. E.), Mechanical Engineer (M. E.).

Admission.—In order to be admitted to a course of study leading to an advanced degree, the candidate must satisfy the following requirements:

1. He must be a graduate of this College or of some other institution approved by the Faculty.

2. His undergraduate work must be of such high order as to satisfy the committee that he is qualified by native ability and by training to pursue graduate studies with profit and with credit. In case his undergraduate work does not fully meet this requirement, the committee may require the completion of additional undergraduate work with a grade of at least B.

Application should be made in advance to the chairman of the committee, and in case the candidate comes from another institution, his application must be accompanied by a complete transcript of his undergraduate record, properly certified.

*Registration.*—Graduate students must register at the beginning of each term at the office of the Registrar.

Studies.—(a) For the degree of Master of Science in Agriculture or in Agricultural Education or in Veterinary Medicine the candidate must choose from the graduate courses listed under the several departments, a major subject and two minor subjects; his choice to be subject to the approval of the heads of departments concerned and of the committee. For each hour of theory the student will be expected to devote to preparation six hours for the major subject and three hours for each minor subject.

(b) For the advanced degrees in engineering and in architecture the courses of study are shown under "Curricula."

*Residence.*—Advanced degrees will not be conferred except after a residence of at least one year at the College. For candidates engaged in teaching or other regular employment, the period of residence will be increased to such extent as the committee may determine.

The residence requirement may be satisfied by residence during three summer sessions of twelve weeks each.

The number of graduate courses offered in the Summer Session is limited, and application should be made at least one month in advance.

Amount of Work.-The amount of work required for an advanced

degree is reckoned as the equivalent of the student's full time for one academic year.

Quality of Work.—In order to be allowed to go on with his course a graduate student must give continued satisfaction in his work.

Thesis.—The candidate must submit a thesis, which shall be based upon his work in the department in which he takes his leading subject. Its title must be submitted to the committee through the head of the department in which it is to be written for approval by November 15. In matter and style the thesis must be acceptable to the head of the department in which it is written and to the committee. It must show that the candidate has the ability to do independent work; and, by correct citation of authorities, must show that he has satisfactory acquaintance with the literature of his field.

The thesis must be typewritten on paper  $8\frac{1}{2}$  inches by 11 inches; two weeks before commencement it must be presented to the committee in completed form ready for binding. Before the degree is conferred a bound copy for the College library must be deposited with the chairman of the committee.

*Examinations.*—The candidate must pass satisfactory examinations upon the work of his course. These examinations may be oral or written, or both, and shall be open to the committee and to members of the Faculty.

*Reports.*—Heads of departments will make reports to the Registrar at the end of each term on all graduate work done in their respective departments; and such other reports on the progress of their graduate students as the committee may request.

Special Committee.—The instructors under whom a graduate student takes work shall constitute a special committee to direct and advise him concerning his work and to represent him before the Committee on Graduate Studies. The instructor in charge of the leading subject shall be chairman of the special committee in each case.

Graduation.—Candidates for advanced degrees who expect to complete their work at the end of a given term must give written notice to the chairman of the committee to that effect at least three months in advance. When a candidate has to the satisfaction of the Committee on Graduate Studies completed the requirements for an advanced degree he will be recommended to the Faculty for his degree. The diploma fee is \$7.50.

#### WORKING FELLOWSHIPS IN THE EXPERIMENT STATION.

With the approval of the committee, a graduate student holding an appointment to a working fellowship in the Agricultural Experiment Station may take part of his work for the degree of Master of Science under the head of a division of the Agricultural Experiment Station. The holder of such a fellowship must spend at least two years upon his graduate work.

# CURRICULA.

#### THEORY, PRACTICE, TERM-HOUR.

In the curricula shown on the following pages, the time devoted each week to the several subjects is expressed in clock-hours. The hours devoted to "theory" (which includes recitations and lectures) are in-dicated in the column headed "Th.," the hours devoted to "practice" (which includes work in laboratory, shop, drawing room or field) are indicated in the column headed "Pr."

A "term-hour" is one clock-hour of "theory" or two clock-hours of "practice" per week for one term. Notes.-1. In addition to the work shown in the several curricula,

(a) All first-year students are required to take physical training three hours a week.

(b) Students taking English are required to attend conferences with their instructors.

(c) In the four-year agricultural and engineering courses all students are required to attend an assembly not oftener than once a month. (d) Members of the R. O. T. C. are required to devote two afternoons in

the second term of every year to target practice. 2. Junior and senior courses in military science are required of members

of the advanced course in the R. O. T. C.; they are not open to other students.

#### I.-COURSE IN AGRICULTURE.

#### FRESHMAN YEAR.

First Term.	Hours we Th.	ek.		rs per eek. Pr.
Animal Husbandry 101	0	4	Agronomy 102 3	2
Market Types Biology 101	2	4	Field Crops Animal Husbandry 102 0	4
General Botany Chemistry 101	3	3	Market Types Biology 102 2	4
Inorganic Dairy Husbandry 101	0	2	General Botany Chemistry 102 3	3
Judging Dairy Cattle English 103		0	Inorganic English 104 3	0
Rhetoric and Composition Mathematics 107	3	0	Rhetoric and Composition Military Science 102 or 104 1	2
Agricultural Military Science 101 or 103.	1	<b>2</b>	Textile Engineering 102 0 Cotton Classing	2
		15	12	17
	SOP	номов	E YEAR.	

**Biology 207 2	4	Agricultural Engineering 204 2	2
Zoology English 203 2	0	Farm Machinery **Biology 2061	4
Composition Entomology 201 2	2	Bacteriology Chemistry 206 3	2
General Geology 209 3	2	Organic <del>Dairy Husbandry 202</del> <del>2</del>	æ
General Horticulture 201 2	2	Dairying English 204 2	0
Plant Prop. and Orcharding Military Science 201 or 203 1	<b>2</b>	Composition Military Science 202 or 204 1	2
*Elective 3		*Elective &	
_		·	
15	12	14	12

#### \*To be chosen from the following:

Agricultural Economics 203	3	0	Animal Husbandry 202 2	2	<b>2</b>
Agricultural Resources Agricultural Engineering 203.	2	2	Breed Types Geology 210	2	2
Gas Engines Animal Husbandry 201		2	Agricultural Horticulture 202		2
Farm Poultry			Vegetable Gardening		

\*\*Odd numbered sections will take Biology 207 the first term and Biology 206 the second term. Even numbered sections will take those subjects in the reverse order.

104

.

# AGRICULTURE.

# GROUP 1. AGRICULTURAL CHEMISTRY.

# JUNIOR YEAR.

First Term. Agronomy 301 Soils Chemistry 309 Agricultural Chemistry Chemistry 313 Qualitative Analysis	3 2	ek. Pr. 2 3 8	Hour Second Term. wee 501 Th. **Agronomy 3009	ek. Pr. 2 6 0
English 301	· · *	0	English 304 2	0
*Elective	5		Argumentation *Elective	
	14	13	. 16	8
•				
	8	ENIOR	YEAR.	
Agricultural Economics 411. Agricultural Economics	3	0	Chemical Engineering 414 3 Sanitary	, <b>4</b>
Chemical Engineering 411	3	4	English 402 1	0
Physical English 401	1	0	Public Speaking Rural Sociology 408 2	2
Public Speaking Farm Management 401	2	4	Rural Sociology *Elective11	
Farm Management *Elective	7	•	•	
	$\overline{16}$	3	17	6

# GROUP 2. AGRICULTURAL EDUCATION.

JUNIOR YEAR.

-			
A 801	9	302 3	~
Agronomy 301 3	2	Agronomy <del>308</del> <del>2</del>	2
Soils Chemistry 309 3	3	Forage Crops Economics 306 3	0°
Agricultural Chemistry	0	Fundamental Principles	U
English 301 1	0	English 304 2	0
Argumentation		Argumentation	
Vocational Teaching 305 3	0	Vocational Teaching 308 3	0
Vocational Education		Educational Psychology	
*Elective		*Elective 9	
_	<u> </u>	-	
18	5	19	2
			X
, ,	SENIOR	YEAR.	
	2	T-11 1 402	<b>n</b> .
Agricultural Economics 411 3	• <del>•</del>	English 402 1	0°
Agricultural Economics English 401 1	0	Public Speaking	2
Public Speaking	v	Rural Sociology 408 2 Rural Sociology	. 2
Farm Management 401 2	4	Vocational Teaching 402 2	2
Farm Management	-	Adm. of H. S. Agriculture	-
Vocational Teaching 401 3	0	*Elective	
Methods of Teaching Agriculture			
*Elective			
			—
18	4	. 18	4

# GROUP 3. AGRICULTURAL ENGINEERING.

#### JUNIOR YEAR.

	irs per veek. 1. Pr.	Hours Second Term. wee Th.	
Agricultural Engineering 305. 3	4	Agricultural Engineering 314. 2	4
Surveying and Drainage Agronomy 301 3 Soils	2	Tractors <b>5.2</b> Agronomy <del>308</del> Forage Crops	2
Chemistry 309 3	3	Economics 306 3	0
Agricultural Chemistry English 301 1	-	Fundamental Principles English 304 2	0
Argumentation *Elective		Argumentation *Elective	
		· · · · · ·	—
16	9	17	6
	SENIOR	YEAR.	
Agricultural Economics 411	4	Agricultural Engineering 402. 2	4
Agricultural Economics Agricultural Engineering 413 2	4	Automobiles and Trucks English 402 1	0
Farm Buildings English 401 1	0	Public Speaking Rural Sociology 408 2	<b>2</b>
Public Speaking		Rural Sociology	
Farm Management 401 2	4	*Elective12	
Farm Management 401 2 Farm Management *Elective		*Elective12	
Farm Management		*Elective12	6

# GROUP 4. AGRONOMY.

# JUNIOR YEAR. 302

	3
Agronomy 301 3 2 Agronomy <del>308</del>	
Soils Forage Crops	
Agronomy 305 2 2 Agronomy 306	
Genetics Flant Breeding	
Chemistry 309 3 3 Economics 306	
Agricultural ChemistryFundamental PrincipEnglish 30110English 304	
	••••••
*Elective	9
16 7	18 4
SENIOR YEAR.	
SENIOR YEAR. Agricultural Economics 411 $\frac{2}{3}$ $\frac{2}{4}$ Agronomy 410	
Agricultural Economics 411 $\frac{2}{3} \xrightarrow{2} 4$ Agronomy 410	
Agricultural Economics21122Agricultural EconomicsSoil FertilityAnimal Husbandry 4092English 402	
Agricultural Economics 411       2       Agronomy 410         Agricultural Economics       Soil Fertility         Animal Husbandry 409	1 0
Agricultural Economics 41122Agricultural Economics56Animal Husbandry 40932Animal Nutrition and FeedingPublic SpeakingEnglish 40110	1 0
Agricultural Economics212Agricultural Economics56Animal Husbandry 40932Animal Nutrition and Feeding9English 4011Public Speaking0Rural Sociology 408Burgel Sociology	1 0 2 2
Agricultural Economics2122Agricultural EconomicsSoil FertilityAnimal Husbandry 4093English 402Animal Nutrition and FeedingPublic SpeakingEnglish 4011Public SpeakingRural SociologyFarm Management 40124	1 0 2 2
Agricultural Economics2122Agricultural EconomicsSoil FertilityAnimal Husbandry 4092English 402Animal Nutrition and FeedingPublic SpeakingEnglish 4010Public SpeakingRural Sociology 408Farm Management 40124	1 0 2 2
Agricultural Economics2122Agricultural EconomicsSoil FertilityAnimal Husbandry 4093English 402Animal Nutrition and FeedingPublic SpeakingEnglish 4011Public SpeakingRural SociologyFarm Management 40124	1 0 2 2

## AGRICULTURE.

## GROUP 5. ANIMAL HUSBANDRY.

#### JUNIOR YEAR.

	rs per eek. Pr. 2 2 2 2 3	Second Term.	2 2 3 0
English 301 1	0	Veterinary Anatomy 302	2 2
Argumentation *Elective	-	Anatomy and Physiology *Elective	6
· 16	9	· 1	7 6
Agricultural Economics 411 Agricultural Economics English 401 1 Public Speaking Farm Management 401 2	SENIOR Zo- O 4	YEAR. English 402 Public Speaking Rural Sociology 408 Rural Sociology *Elective	2 2
Farm Management 401 2 Farm Management Veterinary Medicine 403 3 Animal Diseases *Elective	2		92
			•

Note.—In group 5, the senior electives must include at least one course in Animal Husbandry each term.

. . . .

٠ ŝ.

## GROUP 7. DAIRY HUSBANDRY.

## JUNIOR YEAR.

First Term.	Hours wee			rs per ek.
	Th.	Pr.	302, Th.	
Agronomy 301 Soils	3	2	Agronomy <del>208</del>	2
Agronomy 305		2	Dairy Husbandry 306	2
Chemistry 309 Agricultural Chemistry	3	3	Management Economics 306 3	0
Dairy Husbandry 301	2	2	Fundamental Principles English 304 2	0
Market Milk English 301	1	0	Argumentation	0
Argumentation *Elective	5		*Elective 9	
		. — '		. —
	16	9 ·	18	4
	2 8	ENIOR 2-	YEAR.	
Agricultural Economics 411.	<del>9</del>	<del>9</del> -	Dairy Husbandry 406 3	2
Agricultural Economics Animal Husbandry 401	3	<b>2</b>	Dairy Cattle Feeding and Management	
Animal Nutrition English 401	1	0	English 402 1 Public Speaking	0
Public Speaking		-	Rural Sociology 408 2	2
Farm Management 401 Farm Management	:. 2	4	Rural Sociology *Elective12	
*Elective	8			
	17	6	18	4
	11	0	18	4
GRO	UP 9.	HO:	RTICULTURE.	
	J	UNIOR	YEAR. 302. 3	
Agronomy 301	3	2	Agronomy <del>308</del> <del>2</del> Forage Crops	2
Agronomy 305 Genetics	2	2	Economics 306 3	0
Chemistry 309	3	3	Fundamental Principles English 304 2	0
Agricultural Chemistry English 301	1	0	Argumentation Horticulture 310 2	2
Argumentation Horticulture 303		2	Commercial Veg. Production	. –
Principles of Fruit Production		2.	*Elective 9	
*Elective	4			
	16	9		4
	s	ENIOR	YEAR.	
Agricultural Economics 411.	. 3-	2	English 402 1	0
Agricultural Economics English 401		0	Public Speaking Horticulture 404	2
Public Speaking			Commercial Horticulture	. –
Farm Management 401 Farm Management	2	4	Rural Sociology 408 2 Rural Sociology	2
Horticulture 401	3	2	*Elective	
Pomology *Elective	8			
		6	-	_
	17	U.	18	<b>4</b>



## GROUP 10. LANDSCAPE ART.

#### JUNIOR YEAR.

First Term.	Hours wee Th.		Second Term.	ours per week. h. Pr.
Agronomy 301	. 3	2	Agronomy 308	2-2
Chemistry 309 Agricultural Chemistry	. 3	3	Economics 306	30
English 301	. 1	0	Fundamental Principles English 304 Argumentation	20
Horticulture 307 Introduction to Landscape Art	. 2	2	Horticulture 308 History of Lanscape Art	20
*Elective	. 8		*Elective	0
	17	7.	1	9 2
	្ទន	ENIOR	YEAR.	
Agricultural Economics 411 Agricultural Economics	. <del>3</del> -	24	English 402	1 0
English 401 Public Speaking	. 1	0	Public Speaking Horticulture 416	3 4
Farm Management 401	. 2	4	Landscape Design Rural Sociology 408	2 2
Farm Management Horticulture 415	. 3	4	Rural Sociology *Elective1	1
Landscape Design *Elective	. 7			•
е <u>к</u>	16	8	1	7 6

### \*Junior and Senior electives.

In all groups the junior and senior electives are to be chosen in departments offering courses in the School of Agriculture. These electives must be chosen from courses numbered above 300.

Notes .--- 1. The following required courses are common to all groups: Agricultural Economics 411; Agronomy 301, 308; Chemistry 309; Economics 306;
English 301, 304, 401, 402; Farm Management 401; Rural Sociology 408.
\*\*2. For the Sessions 1922-23, 1923-24 Agronomy 308 will be replaced by

Agronomy 302 (3-2) as described in the 45th Catalogue.

110

# AGRICULTURAL AND MECHANIA COLLEGE OF TEXAS.

## XIV.—COURSE IN AGRICULTURAL ADMINISTRATION.

## FRESHMAN YEAR.

First Term.	Hour we Th.	ek.	Second Term.	ours weel 'h.	
Agronomy 103	. 3	2	Animal Husbandry 102	0	4
Field Crops Animal Husbandry 101	0	4	Market Types Biology 102	2	4
Market Types Biology 101	2	4	General Botany Chemistry 102	3	3
General Botany Chemistry 101	3	3	Inorganic Drawing 122	0	3
Inorganic English 103	3	0	Mechanical Drawing English 104	3	0
Rhetoric and Composition Military Science 101 or 103.	1	<b>2</b>	Rhetoric and Composition Mathematics <del>108</del> \Q\ Agricultural A\getera	3	0
			Military Science 102 or 104	1	2
			-	_	
	12	15	1	2	16

Required in all groups:

#### SOPHOMORE YEAR.

Agricultural Economics 201	1 4	Agricultural Economics 202 1	. 4
Accounting Economics 201	3 0	Accounting Economics 202 2	n
Elementary	0 0	Business Law	v
English 203	2 0		0
Composition		Composition	
Military Science 201 or 203	1 2	Military Science 202 or 2041	2
*Elective1	0	*Elective11	
		·	
1	7 6	17	6

#### JUNIOR YEAR.

(Effective	September,	1923).	
------------	------------	--------	--

1	Agricultural Economics 301 2	<b>2</b>	Economics 312	3	0
ł	Agricultural Economics Agricultural Economics 305 1	4	Money and Banking English 304	2	0
1	Statistics English 301 1	· 0	Argumentation Farm Management 302	3	4
	Argumentation		Farm Management		-
]	Rural Sociology 311 3 Social Psychology	0	Rural Sociology 310 Rural Organizations	2	<b>2</b>
-	Elective10		*Elective	7	
	. —		· ·		<u> </u>
	17	6	. 1	17	6

## SENIOR YEAR.

· (Effective	Septe	ember, 1924).		
Agricultural Economics 401 3	0	Agricultural Economics 402	3	0
Marketing English 401 1	0	Property and Contract English 402	1	0
Public Speaking Rural Sociology 407 2 Rural Sociology	2	Public Speaking *Elective	16	
*Elective				
	. <u> </u>			
19	2		20	• 0



In addition to the required work listed above, the student must take electives sufficient to make a total of 160 term-hours before graduation. In the several groups the electives must be chosen subject to the restrictions stated below.

#### GROUP 1. AGRICULTURAL ECONOMICS.

In this group the electives must include:

1. A minimum of 20 term-hours from the following:

Agricultural Economics 303, 401, 403, 405, 407, 409; 204, 308, 406, 408, 410, 412, 414.

Mathematics 101, 203; 104, 106, 204.

2. A minimum of 12 term-hours in technical agriculture, to be taken in the departments of Agricultural Engineering, Agronomy, Animal Husbandry, Dairy Husbandry, Horticulture.

#### GROUP 2. FARM MANAGEMENT.

In this group the electives must include:

1. Four courses from the following:

Farm Management 301, 405, 407; 406, 408.

2. A minimum of 30 term-hours in technical agriculture, to be taken in the departments of Agricultural Engineering. Agronomy, Animal Husbandry, Dairy Husbandry, Horticulture. At least 3 term-hours must be taken in each of those departments.

#### GROUP 3. RURAL SOCIOLOGY.

In this group the following courses are required: Rural Sociology 415; 312, 410, 414.

The electives must include:

1. A minimum of 4 term-hours from the following: Rural Sociology 201, 409, 413, 416.

2. A minimum of 18 term-hours in technical agriculture, to be taken in the departments of Agricultural Engineering, Agronomy, Aaimal Husbaudry, Dairy Husbandry, Horticulture. At least 3 term-hours must be taken in each of those departments.

5. A minimum of 6 term-hours in the departments of Economics and History.

4. A minimum of 6 term-hours in the department of Vocational Teaching.

## XIV.-COURSE IN AGRICULTURAL ADMINISTRATION.

#### JUNIOR YEAR.

(For the Session 1922-23).

First Term.		s per ek. Pr.	Hour Second Term. wee Th.	
Agricultural Economics 201 Accounting	. 1	4	Agricultural Economics 202 1	4
Agronomy 301	. 3	2	Accounting Agricultural Economics 302 2	<b>2</b>
Soils Economics 305	. 3	0	Agricultural Economics Agronomy 302 3	2
Principles of Economics English 301	. 1	0	Farm Crops English 304 2	0
Argumentation History 305	. 3	0	Argumentation <del>History 312</del> <del>3</del>	<del>.</del>
Citizenship Rural Sociology 301	. 3	0	Latin-American *Elective	
General Sociology *Elective	. 3		6	
	17	ឋ	14	0

#### SENIOR YEAR.

(For the Sessions 1922-23 and 1923-24).

0	Economics 408	0
0	English 404 3	0
0	Farm Management 402 3	4
à	Farm Management Rural Sociology 404 2	2
e.	Rural Organization *Elective6	
0	17	6
	0 0 2 <del>0</del>	Corporation Finance 0 English 404

\*To be chosen subject to the approval of the Professor of Agricultural Economics.

## AGRICULTURE.

## XII.-COURSE IN AGRICULTURAL EDUCATION.

#### FRESHMAN YEAR.

First Term.	Hours wee Th.	ek.	Hours Second Term. wee Th.	k.
Animal Husbandry 103	2	4	Animal Husbandry 104 2	4
Live Stock Production Biology 101 General Botany	2	4	Live Stock Production Biology 102 2 General Botany	4
Chemistry 101	3	3	Chemistry 102 3	3
Inorganic Dairy, Husbandry 101 Judging Dairy Cattle English 103	0	2 0	Inorganic Dairy Husbandry 102 2 Dairying English 104 3	2
Rhetoric and Composition Military Science 101 or 103. Textile Engineering 101 Cotton Classing		2 2	Rhetoric and Composition Military Science 102 or 104 1	2
	11	17	13	15

#### SOPHOMORE YEAR.

Agricultural Engineering 203 2 Gas Engines	2	Agronomy 202 3 Field Crops
Animal Husbandry 201 2	<b>2</b>	Biology 206 1
Poultry		Bacteriology
Biology 207 2	4	Chemistry 206 3
Zoology	-	Organic
English 203 2	0	English 204 2
Composition		Composition
Entomology 201 2	<b>2</b>	Military Science 202 or 204 1
General		*Elective
Horticulture 201	2	
Plant Prop. and Orcharding		
Military Science 201 or 203 1	2	
-		·
13	14	15

#### JUNIOR YEAR.

•

R	YEAR.	
	Agricultural Engineering 318 1	6
	Farm Shop Agronomy 302	2
	Forage Crops Economics 306 3	0
	Fundamental Principles English 302 1	0
	Argumentation Vocational Teaching 308 3	0
	Educational Psychology *Elective	
	. 16	8

2

4

2

0

2

10

## 114 AGRICULTURAL AND MECHANICAL COLLEGE OF TEXAS.

## SENIOR YEAR.

First Term.	Hour we		s
First Term.	we Th.	Pr.	G
Agricultural Economics 411	3	0	English 402
Agricultural Economics			Public Sp
English 401	1	0	Rural Socio
Public Speaking			Rural Soc
Farm Management 401	2	4	Vocational
Farm Management			Adm. of 1
Vocational Teaching 401	3	U	Vocational
Methods of Teaching Agri-			Supervised
culture			Elective
Elective	9		
	18	4	

		irs per
Second Term.	V	veek.
	Th	. Pr.
English 402	1	0
Public Speaking		
Rural Sociology 408	. 2	2
Rural Sociology	_	
Vocational Teaching 402	2	2
Adm. of H. S. Agriculture		
Vocational Teaching 410	. 3	0
Supervised Teaching		
Elective	.10	

\*\*

18 4

.

## AGRICULTURE.

.

.

## C.--TWO-YEAR COURSE IN AGRICULTURE.

#### FIRST YEAR.

First Term.	Hour we Th.	s per ek. Pr.	Hour Second Term. we Th.	
Agricultural Engineering 201	2	2	Agronomy 30 3	<b>2</b>
Farm Machinery Agronomy 25 Soils	3	2	Elementary Crop Production Animal Husbandry 102 0 Market Types	4
Animal Husbandry 101	0	4	Animal Husbandry 106 2	2
Market Types		_	Farm Poultry	
Dairy Husbandry 23	3	2	English 32 3	0
Farm Dairying English 31 Practical Composition	3	0	Practical Composition Entomology 22 2 Elementary Econ. Ent.	<b>2</b>
Horticulture 21	2	2	Horticulture 202 2	2
Plant Culture and Propagation			Vegetable Gardening	-
Military Science 11	1	2	Military Science 12 1	2
Textile Engineering 101		2	Textile Engineering 102 0	2
Cotton Classing			Cotton Classing	
	14	16	13	16

## SECOND YEAR.

Eighteen term-hours each term from the following in addition to Military Science:

Agricultural Engineering 305.	3
Surveying and Drainage	
Agricultural Engineering 203	2
Gas Engines	_
Agricultural Engineering 409	1
Farm Concrete	
Agronomy 55	<b>2</b>
Elementary Plant Breeding	
Animal Husbandry 55	2
Feeding	
Dairy Husbandry 55	2
Dairy Cattle Feeding and	
Management	
Drawing 61	Û
Mechanical	
English 103	3
Rhetoric and Composition	
Horticulture 53	3
Tree and Vine Fruits	
Military Science 51	1

Agricultural Engineering 302	0	4
Repair of Farm Machinery		
Agricultural Engineering 314	2	4
Tractors		
Agricultural Engineering 402	<b>2</b>	4
Automobiles and Motor Trucks		
Agricultural Engineering 316	2	<b>2</b>
Irrigation		
Animal Husbandry 52	2	2
Breeding		
Animal Husbandry 58	2	<b>2</b>
Live Stock Management		
Animal Husbandry 202	2	<b>2</b>
_ Breed Types		
English 104	3	0
Rhetoric and Composition		
Entomology 56	<b>2</b>	<b>2</b>
Apiculture		
Farm Management 52	<b>2</b>	4
Elementary Farm Management		
Horticulture 58 6.9.	1	4
Nut Culture Pacano		
Military Science 52	1	2
	3	2
Animal Diseases	0	-
Annual Diseases		

## M.-TWO-YEAR COURSE IN AGRICULTURAL ENGINEERING.

#### FIRST YEAR.

First Term.	lours p week Th. 1		Second Term.	ours per week. h. Pr.
Agricultural Engineering 31	3	0	Agricultural Engineering 32	3 0
Shop Computations Agricultural Engineering 201	2	2	Shop Computations Agricultural Engineering 206	24
Farm Machinery Agricultural Engineering 409	1	2	Gas Engines Agronomy 30	32
Farm Concrete Agronomy 25 Soils	3	2	Elementary Crop Production Drawing 16	0 2
Drawing 15	0	2	English 32	30
Mechanical English 31 Practical Composition	3	0	Practical Composition Horticulture 202 2 Vegetable Gardening	2 2
Mechanical Engineering 103	0	3	Mechanical Engineering 104	0 3
Woodwork Military Science 11	1	2	Forging Military Science 12	1 2
· ·	13	13	1	4 15

#### SECOND YEAR.

Agricultural Engineering 305 3 Surveying and Drainage	4	Agricultural Engineering 302 0 Repair of Farm Machinery	4
Agricultural Engineering 413 2	4	Agricultural Engineering 402 2	-4
Farm Buildings Agricultural Engineering 317 2	4	Automobiles and Motor Trucks Agricultural Engineering 4140	4
Tractors Military Science 51 1 *Elective 6	2	Farm Buildings Military Science 52 1 *Elective	2
ENECCIVE	_		
. 14	14	12	14

\*To be chosen from subjects listed in Course C.

.

## ENGINEERING.

## **COURSES IN ENGINEERING**

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

## FRESHMAN YEAR.

	irs per veek. . Pr.	Second Term.	ours pe week. Fh. P	
Chemistry 101 3		Chemistry 102		3
Inorganic	Ŭ	Inorganic	J	0
Drawing 101 0	3	Drawing 102	0	3
Mechanical	°,	Mechanical	v	J
Drawing 103 2	0	Drawing 104	0	0
			Z	U
Descriptive Geometry	1	Descriptive Geometry	-	
Drawing 105 0	L	Drawing 106	0	T
Freehand	•	Freehand		
English 103 3	0	English 104	3	0
Rhetoric and Composition		Rhetoric and Composition		
Mathematics 101 3	. 0	Mathematics 102	3	0
Algebra		Algebra		
Mathematics 103 3	0.	Mathematics 104	3	0
Trigonometry		Analytics		
Mechanical Engineering 101 1	0	Mechanical Engineering 102	1	0
Elementary Mechanics		Elementary Mechanics		0
Mechanical Engineering 103 0	3	Mechanical Engineering 104	0	3
Woodwork		Forging	U	9
Mil. Sci. 101, 103 or 105 1	2	Mil. Sci. 102, 104 or 106	1	2
Mill. Sci. 101, 100 Of 100 1	-	MIII. Sel. 102, 104 01 100	T	4
	10	· · ·		_
. 16	12	· ]	16 1	12

.

## XV.—COURSE IN AGRICULTURAL ENGINEERING.

FRESHMAN YEAR.

See page 117.

	SOP	номон	RE YEAR.	
First Term.	Hours we Th.			rs per veek. . Pr.
Agricultural Engineering 21	1 2	4	Agricultural Engineering 214 2	4
Gas Engines Animal Husbandry 211 Market Types	0	4	Tractors Animal Husbandry 212 0 Market Types	4
English 203	2	0	Civil Engineering 206 1	3
Composition Mathematics 205 Calculus	5	0	Plane Surveying Civil Engineering 204 4 Analytic Mechanics	0
Mechanical Engineering 209 Machine Shop	0	3	English 204 2 Composition	0
Military Science 201 or 203.	1	2	Military Science 202 or 204 1	2
Physics 203	3	3 .	Physics 204 3	3
General			General	
	13	16	13	16

SUMMER WORK.

Civil Engineering 300, Field Practice, three weeks.

## JUNIOR YEAR.

Agronomy 301	3	2	Agricultural Engineering 320 2 Farm Machinery	4
Civil Engineering 327	3	0	Agronomy 302 3	2
Mechanics of Materials English 303	2	0	Farm Crops Civil Engineering 328 0	2
Argumentation			Mechanics of Materials Laboratory	
Electrical Engineering 305	3.	2	English 302 1	0
Electrical Machinery Geology <del>309</del> .3.94	3	2	Argumentation History 306 3	0
General			Citizenship	2
Elective	J		Horticulture 312 2 Vegetable Gardening	4
			Elective 4	
-		_	<u> </u>	
1	7	6	15	10
	SEN	IOR	YEAR.	
Agricultural Engineering 415	2	2	Agricultural Engineering 410 2	0
Drainage	•		Irrigation 2	4
Agricultural Engineering 413	Z	4	Agricultural Engineering 418 3	2-

Drainage		
Agricultural Engineering 413	2	4
Farm Buildings		
Civil Engineering 441	3	2
Hydraulics		
Civil Engineering 407	3	0
Roads and Pavements		
Economics 403	3	0
Fundamental Principles		
English 401	1	U
Public Speaking		
Elective	9	
Elective	9	
-		
-	17	×
-		0

Agricultural Engineering 410. 2 Irrigation	0 4
Agricultural Engineering 418 3	2
Designing of Farm Structures Agricultural Engineering 402 2	4
Automobiles and Trucks Civil Engineering 410 2	9
Contracts and Specifications English 402 1	0
Public Speaking Farm Management 402 3	4
Farm Management Elective 3	
·	

16 10'

.

## ARCHITECTURE.

## IX.—COURSES IN ARCHITECTURE: GROUP 1. GENERAL COURSE.

#### FRESHMAN YEAR.

			1 1 2 4 4 4		
		s per		ours pe	r
First Term.	we Th.	ek. Pr.		week.	-
		Pr. 3		'h. Pı ()	г. 6
Architecture 101 Architectural Drawing	0	ð	Elements	0	U
Chemistry 101	3	3		2	0
Inorganic			Shadows and Perspective		-
Drawing 101	0	3		3	3
Mechanical	•	0	Inorganic	0	0
Drawing 103	z	0	0	0	3
Descriptive Geometry Drawing 109	0	. 3	Freehand English 104	3	0
Freehand	v	-	Rhetoric and Composition	•	
English 103	3	U	Mathematics 102	3	0
Rhetoric and Composition			Algebra	~	~
Mathematics 101	3	0		3	0
Algebra Mathematics 103	7	0	Analytics Mil. Sci. 102, 104 or 106	1	2
Trigonometry	J	U	MIII. Sel. 102, 104 OF 100	1	4
Mil. Sci. 101, 103 or 105	1	2			
· · · · · · · · · · · · · · · · · · ·			_		-
	15	14	1	5 1	4
	COL	TOYOD	E YEAR.		
				-	~
Architecture 201	0	10	Architecture 202	0 1	0
Design Architecture 209	1	0	Design Architecture 210	2	0
Principles of Design	-	v	Masonry and Carpentry	4	U.
Architecture 207	2	0 .	Architecture 208	2	0
History			History		
Architecture 217	3	0		3	0
Elements of Mechanics	Δ	4	Mechanics of Materials	0	4
Drawing 209 Freehand	U	4	Drawing 210 Freehand	U	*
English 203	2	0	English 204	2	0
Composition			Composition		
Physics 203	3	3	Physics 204	3	3
General			General	-	0
Military Science 201 or 203	1	2	Military Science 203 or 2.4	1	2
	12	19	-	3 1	9
	14	19	· · · ·	5 1	9
	$\mathbf{J}^{\dagger}$	UNIOR	YEAR.		
Architecture 301	0	15	Architecture 302	0 1	5
Design			Design		
Architecture 309	2	0		3	0
History Architecture 317	0	3	Mechanical Equipment	2	3
Framed Construction	4	0	Architecture 318 Reinforced Concrete	z	3
Drawing 309	0	4	Drawing 310	0	4
Freehand		-	Water Color		
English <del>301</del>	2	0	English 302	1	U
Argumentation	•	0	Argumentation		^
Modern Language 311	3	0	Modern Language 312	3	0
French	_		French		_
	9	.22	_	9 2	2
	~ .		TO	· "	-

And one subject each term from List B, page 130; or History 306, Citizenship. (Second term).

.

.

#### SENIOR YEAR.

(Effective 1923-24).

First Term.		rs per eek. Pr.	Second	Term.	Hours wee Th.	
Architecture 401	0	18	Architecture 402		. 0	20
Design Architecture 407	2	. 0	Design Architecture 406		. 2	0
History of Art Drawing 409	0	4	Professional Pra Architecture 414		. 1	0
Rendering Economics 403	3	0	Modern Architec Drawing 410		. 0	4
Fundamental Principles English 401	. 1	0	Rendering English 402		. 1	0
Public Speaking Modern Language 421	3	0	Public Speaking Modern Language	e 422	. 3	0
French			French			
		—				_
	9	22			7	24
		<b>T T T C</b>	100 11		1.00	

And one subject each term from List C, page 130; or Economics 408. (Second term).

## GROUP 2. STRUCTURAL COURSE.

#### FRESHMAN YEAR.

Same as in Group 1.

#### SOPHOMORE YEAR.

Architecture 201 0	10	Architecture 208 2	0
Design 2 Architecture 207	0	History Architecture 210 2	0
History Drawing 209 0	4	Masonry and Carpentry Civil Engineering 204 4	0
Freehand Mathematics 203 5	0.	Analytic Mechanics Mathematics 204 5 Calculus	0
Calculus English 203 2	0	English 204 2	0
Composition Physics 203 3	3	Composition Physics 204 3	3
General Military Science 201 or 203 1	•2	General Military Science 201 or 2031	2
	19	19	5
15	UNIOR	VEAR .	
	0111010		
Architecture 3110	10	Architecture 312 0 Design	12
Architecture 309 2	. 0	Architecture 316 3	U
History Civil Engineering 307 4	2	Mechanical Equipment Civil Engineering 330 2	3
Strength of Materials Drawing 309 0	4	Framed Structures Civil Engineering 326 1	3
Freehand		Surveying	
English 303 2	0	Drawing 310 0	4
Argumentation Electrical Engineering 305 3 Electrical Machinery	2	Water Color English 302 1 Argumentation	0
	_		
11	18	7	22

And one subject each term from List B, page 130; or History 306, Citizenship. (Second term).

## ARCHITECTURE.

.

.

### SENIOR YEAR.

(Effective 1923-24).

First Term.	Hour we		Second Term.	Hour wee	
	Th.	Pr-		Th.	Pr.
Architecture 411	0	14	Architecture 412	. 0	14
Structural Design Architecture 407	. 2	0	Structural Design Architecture 414		0
History of Art Civil Engineering 413	2	U	Modern Architecture Civil Engineering 414	. 2	3
Elements of Reinf. Concrete Economics 403	3	0	Reinforced Concrete Design Architecture 406	. 2	0
Fundamental Principles English 401	1	0	Professional Practice Electrical Engineering 436	. 3	0
Public Speaking Geology 419	3	2	Wiring and Lighting English 402	. 1	0
General			Public Speaking		
3					
	11	16	•	9	17

And one subject each term from List C, page 130; or Economics 408, Business Organization. (Second term).

(For the Session 1922-23).

## GROUP 1.

#### SENIOR YEAR.

First Term.			Second Term.	
Architecture 401	0	16	Architecture 402 0	16
Design	~	•	Design	
Architecture 407	2	0	Architecture 406 2	0
History of Ornament			Special Topics	-
Architecture 415	2	0	Architecture 416 2	3
Concrete Building Construction			Concrete Building Design	
Drawing 409	0	6	Civil Engineering 406 0	3
Color Rendering			Materials of Construction	
Economics 403	3	0	. Electrical Engineering 436 3	0
Fundamental Principles			Wiring and Lighting	
English 401	1	0	English 402 1	0
Public Speaking			Public Speaking .	
	_		—	_
	8	22	8	22

Electives as above.

#### GROUP 2.

#### SENIOR YEAR.

First Term.			Second Term.	r.	
Architecture 403	0	16	Architecture 404	0	16
Structural Design	•	•	Structural Design	~	•
<b>Architecture</b> 405	2	0	Architecture 406	2	0
Structural Problems			Special Topics		
Architecture 407	3	0	Civil Engineering 406	0	3
History of Ornament			Materials of Construction		
Civil Engineering 413	<b>2</b>	0	Civil Engineering 414	2	3
El. of Reinforced Concretee			Reinforced Concrete Design		
Economics 403	3	0	Electrical Engineering 436	3	0
Fundamental Principles			Wiring and Lighting		
English 401	1	0	English 402	1	0
Public Speaking			Public Speaking		
· · · -		_	-		—
	11	16		8	<b>22</b>
1	Flo	tivor .	as above.		
	nne	CLIVES 8	as anove.		

Electives as above.

## VIII.—COURSE IN CHEMICAL ENGINEERING.

FRESHMAN YEAR,

See page 117.

SOPHOMORE YEAR.

First Torm	Hours wee		Second Term.	Hour wee		
First Term.	Th.	Pr.	second Term.	Th.	Pr.	
Chemistry 205		8	Chemical Engineering 202		8	
Qualitative Analysis Drawing 201	0	3	Quantitative Analysis Drawing 202	0	3	•
Mechanical English 203	2	0	Mechanical English 204	2	0	
Composition Mathematics 205	5	0	Composition Mechanical Engineering 206.		3	
Calculus Military Science 201 or 203.	. 1	• 2	Elementary Steam Engineering Military Science 202 or 204.	1	2	
Physics 203		3	Physics 204		3	
General			General			
				·		
	13	16		12	19	
	JT	UNIOR	YEAR.			
Chemical Engineering 301 Advanced Quantitative Analy		9	Chemical Engineering 302 Technical Analysis	2	6	
Chemistry 301		4	Chemistry 302	3	4	
Electrical Engineering 305 Electrical Machinery	3	2	English 302 Argumentation	1	0	
English 303	2	0	Geology 306	3	3	٢
Argumentation	10	15	History 306 Citizenship	3	0	
	10	10.	Citizenanip			
	×			12	13	
. And on	e subj	$\mathbf{ect} \cdot \mathbf{fr}$	om the following:			
Civil Engineering 311 Hydraulics	3	2	Civil Engineering 326 Plane Surveying	1	3	
*One subject from List B.	3	0	*One subject from List B	3	0	
	SE	NIOR 1	YEAR.			
Chemical Engineering 411 Physical Chemistry	3	4	Chemical Engineering 416 Chemical Technology	3	8	
Chemical Engineering 415 Industrial Chemistry	3	4	Chemical Engineering 414 Sanitary Chemistry	3	4	
Economics 403 Fundamental Principles	3	0	Chemistry 430	1	0	
English 401 Public Speaking	1	U	English 402 Public Speaking		0	
	10	8			12	
And seven ho		<b>C</b> ,	m from the following:	0		
Technical Subjects		0	Technical Subjects	4	0	
*One subject from List C		0	*One subject from List C		0	

Note. To those students desiring to do so, an opportunity will be given to specialize in the study of the cotton seed oil industry or in petroleum technology. \*For Lists B and C, see page 130.

ţ

## IV.—COURSE IN CIVIL ENGINEERING.

## FRESHMAN YEAR.

## See page 117.

## SOPHOMORE YEAR.

First Term.	Hours we Th.	ek.		rs per ek. Pr.
Civil Engineering 201	3	5	Civil Engineering 202 2	3
Surveying Drawing 201a Mechanical	0	2	Railroad Engineering Civil Engineering 204	0
English 203	2	0	Analytic Mechanics Drawing 202a 0	2
Composition Mathematics 203	5	0	Mechanical English 204 2	0
Calculus Mechanical Engineering 205.		0	Composition Mathematics 204 5	0
Elementary Steam Engineering Military Science 201 or 203.		2	Calculus Military Science 202 or 204 1	2
Physics 203	3	3	Physics 204 3	3
General		_	General	
. ,	16	12	17	10

#### SUMMER WORK,

Civil Engineering 300, Field Practice, three weeks.

#### JUNIOR YEAR.

Railroad Engineering Railroad Construction	0
Civil Engineering 307 4 2 Civil Engineering 306 3	
Strength of Materials Civil Engineering 311 3 2 Civil Engineering 320 0	2
Hydraulics Electrical Engineering 305 3 2 Civil Engineering 330 2	3
Electrical Machinery Framed Structures English 303 2 0 English 302 1	0
Argumentation Argumentation Geology 306 3	3
General History 306 3	0
Citizenship	
14 0 14	8

#### 14 9

\*And one subject each term from List B.

#### SUMMER WORK.

Civil Engineering 400, Field Practice, three weeks.

\*For List B see page 130.

## GROUP 1. GENERAL CIVIL ENGINEERING.

#### SENIOR YEAR.

				•	
First Term.	Hour	ek.	Second Term.	ours week	c.
	Th.	Pr.	1	Гh.	Pr.
Civil Engineering 401	0	4	Civil Engineering 404	0	6
Railroad Drafting			Bridge Design		
Civil Engineering 403	4	6	Civil Engineering 406	0	3
Roofs and Bridges			Materials of Construction		
Civil Engineering 407	3	0	Civil Engineering 410	2	0
Roads and Pavements			Contracts and Specifications		
Civil Engineering 413	9	0	Civil Engineering 414	9	3
	4	v		4	U
El. of Reinforced Concrete			Reinforced Concrete Design		1000
Economics 403	3	0	Civil Engineering 434	2	0
Fundamental Principles			Irrigation and Drainage		
English 401	r	0	Civil Engineering 440	4	2
		•		-	~
Public Speaking			Sanitary Engineering		~
•			English 402	1	0.
	-		Public Speaking		
			_	_	
	19	10	• •		14
	13	10		. 1	14

And one subject from the following:

Geology 409	2	2	Biology 418	2	4
Engineering Geology		_	Water Bacteriology		
Civil Engineering 429	3	Ð	Economics 408	3	0
Highway Laws and Economics			Corporation Finance		
*One subject from List C	3		*One subject from List C	3	

## GROUP 2. HIGHWAY AND MUNICIPAL ENGINEERING.

Civil Engineering 401 0	4	Biology 418	2	4
Railroad Drafting		Water Bacteriology	-	
Civil Engineering 413 2	0	Civil Engineering 410	2	U
El, of Reinforced Concrete		Contracts and Specifications		
Civil Engineering 415 4	0	Civil Engineering 418	1	3
High. Const. and Maintenance		Highway Materials		
Civil Engineering 417 1	3	Civil Engineering 426	1	5
Highway Materials		Highway Bridges and Culverts		
Civil Engineering 423 2	3	Civil Engineering 440		<b>2</b>
Bridge Design		Sanitary Engineering	<u>`</u>	
Economics 403 3	0	English 402	1	Ο.
Fundamental Principles		Public Speaking		
English 401 1	0	I ubite speaking		
	U			
Public Speaking		<u>.</u>	4	
			<u> </u>	
13	10		11	14

## And one subject from the following:

Civil Engineering 429	3	0	Chemical Engineering 410	1	3
Highway Laws and Economics Geology 409		2	Water Treatment Economics 408	3 ·	0
Engineering Geology *One subject from List C	3		Corporation Finance *One subject from List C	3 <sup>.</sup>	

\*For List C, see page 130.

## V.—COURSE IN ELECTRICAL ENGINEERING.

FRESHMAN YEAR.

See page 117.

#### SOPHOMORE YEAR.

First Term.		s per ek. Pr.	Second Term.	Hours wee Th.	
Drawing 201a	0	2	Civil Engineering 206	. 1	3
Mechanical			Surveying		
Electrical Engineering 201.	4	4	Drawing 202a	. 0	<b>2</b>
Electricity and Magnetism		Ō	Mechanical	•	
English 203	z	0	Electrical Engineering 202	. 2	4
Composition Mathematics 203	5	. 0.	Elementary English 204	. 2	. 0
Calculus	. 0	3	Composition	-	•
Mechanical Engineering 201. Pattern Making and Foundry		3	Mathematics 204	. Э	0
Mil. Sci. 201, 203 or 205		2	Calculus Mechanical Engineering 214	. 0	3
Physics 207	3	2	Machine Shop		
General			Mil. Sci. 202, 204 or 206		2
•			Physics 208	. 3	2
			General		
2.1				-	
	15	13		14	16

#### JUNIOR YEAR.

Civil Engineering 327 S	30	Civil Engineering 328 0	2
Mechanics of Materials Electrical Engineering 301 4	4 6	Mechanics of Materials Laboratory 5 Electrical Engineering 3024	-4
Direct Currents English 301	1 0	Alternating Currents Electrical Engineering 304 0	<u>    4     </u>
Argumentation Mechanical Engineering 307 2		D. C. Design English 302	0
Kinematics		Argumentation	0
Mechanical Engineering 317 4 Engineering Mechanics	± 0	History 306 3 Citizenship	č
• •		Mechanical Engineering 302 5 Steam Engines and Boilers	0
·			
14	4 8	-13-	<del>10</del>
		14	X

## And one subject from the following:

\*One subject from List B..... 3 0 \*One subject from List B..... 3 Ø \*For List B, see page 130. If Military Science 305, 306 be chosen it must be accompanied by Electrical Engineering 309, 310.

#### 126

## AGRICULTURAL AND MECHANICAL COLLEGE OF TEXAS.

## SENIOR YEAR.

First Term.	Hours wee Th.		Hours Second Term. we • Th.	
Economics 403		0	Civil Engineering 410 2	U
Fundamental Principles Electrical Engineering 401	÷	\$	Contracts and Specifications Electrical Engineering 402 3	4
A. C. Machinery Floctrical Engineering 403.	1	4	A. C. Machinery Electrical Engineering 406 2	2
Electrical Engineering 423 Electrical Railways	· 3	0	Power Distribution Electrical Engineering 408 0 General Problems	2
English 401	1	0	Electrical Engineering 428 2	0
Public Speaking Mechanical Engineering 415.	0	3	Telephony Electrical Engineering 426 1	2
Laboratory			Illumination Engineering English 402 1	0
,			Public Speaking Mechanical Engineering 416 0	3
	_		Laboratory	
	++-	-13-	11	13
* 17	12	11	100	

\*For List B, see page 130.

And one subject from the following:

Civil Engineering	411	3	0	Geology 412 3	3
Hydraulics *One subject from	List C	3	0	General *One subject from List C 3	0
		<b>.</b>	- C1111		

\*For List C, see page 130. If Military Science 405, 406 be chosen it must be accompanied by Electrical Engineering 409, 410.

۰.

## MECHANICAL ENGINEERING.

## III.—COURSE IN MECHANICAL ENGINEERING.

a.

#### FRESHMAN YEAR.

See page 117.

## SOPHOMORE YEAR.

Direct Marrie	Hours		Second Term.	Hours	
First Term.	weel Th.	Pr.	Second Term.	Th.	ek. Pr.
Chemistry 207	2	3	Chemistry 208	1	4
Quantitative Analysis, English 203	2	0	Technical Analysis English 204	2	0
Composition Mathematics 203 Calculus	5	0	Composition Mathematics 204 Calculus	. 5	ŋ
Mechanical Engineering 201.		3	Mechanical Engineering 202.	. 0	3
Pattern Making and Foundry Mechanical Engineering 207.	2	<b>2</b>	Pattern Making and Foundry Mechanical Engineering 212.		.0
Kinematics Mil. Sci. 201, 203 or 205	1	2	Engineering Mechanics Mil. Sci. 202, 204 or 206	1	2
Physics 203	3	3	Physics 204	. 3	3
	15	${13}$		15	12
			YEAR.	10	
				•	
Civil Engineering 305 Mechanics of Materials		2 0	Electrical Engineering 308 Electrical Machinery English 302		3 0
Electrical Engineering 307 Electrical Machinery		0	Argumentation		
English 301	1	U	History 306	. 3	0
Argumentation Mechanical Engineering 319. Engines and Boilers	4	0	Citizenship Mechanical Engineering 320 Thermodynamics	. 4	0
Mechanical Engineering 303.	0	3	Mechanical Engineering 304	. 0	4
Machine Design Mechanical Engineering 313.	3	0	Machine Design Mechanical Engineering 314	. 3	0
Engineering Mechanics Mechanical Engineering 309.		3	Engineering Mechanics Mechanical Engineering 310		3
Machine Shop		-	Machine Shop		
	14 .	8		13	10
And on			am the following.	10	10
			om the following: *One subject from List B	. 3	0
	SE	INIOR	YEAR.		
	Require	ed in	all groups.		
Chemical Engineering 407	3	0	Chemical Engineering 408	. 2	0
Industrial Chemistry Civil Engineering 411 Hydraulics	3	0	Metallurgy English 402	. 1	0
Economics 403	3	0	Public Speaking Mechanical Engineering 404	. 0	4
Fundamental Principles English 401	1	0	Laboratory Mechanical Engineering 410	. 3	0
Public Speaking Mechanical Engineering 403.	0	4	Gas Engines Mechanical Engineering 412	. 3	0
Laboratory			History and Biography		
	10	4		9	4
A*	or List	Ra	ee nage 130		

\*For List B, see page 130.

128

AGRICULTURAL AND MECHANICAL COLLEGE OF TEXAS.

# GROUP 1.

First Term.	Hours weel		Second Term.	Hours we	
	Th.	Pr.		Th.	Pr.
Mechanical Engineering 407.	2	0	Mechanical Engineering 414.	2	9
Thermodynamics			Steam Turbines		
Mechanical Engineering 417.		4	Mechanical Engineering 418.	2	4
Power Plants and Equipment			Power Plants and Equipment		
*Elective	3		*Elective	3	
	—				
	7	4		7	4
	(	GROU	<b>P 2.</b>		
Mechanical Engineering 419.	2	2	Mechanical Engineering 420.	3	2
Industrial Engineering 419.		4	Industrial Engineering 420.		-
Mechanical Engineering 421.	9	0	Mechanical Engineering 422.	9	Ð
Methods and Management	•• 4	U	Methods and Management	4	0
*Elective	3		*Elective	3	
	8	2		8	2
	a	4		4	2
	(	GROU	P 3.		
16 1 1 1 1 1 1 1 1 1 1	-				
Mechanical Engineering 423.	2	0	Mechanical Engineering 424.	2	0
Transportation	•		Transportation	~	
Mechanical Engineering 425.	2	4	Mechanical Engineering 426.	., <b>z</b>	4
Railway Mech. Engineering	•		Railway Mech. Engineering		
*Elective	3		*Elective		
	_				
	7	4		<b>7</b>	4
*The student will elect on	e of th	e foll	lowing, or any other approved	elect	ive:

\*The student will elect one of the following, or any other approved elective: \*One subject from List C..... 3 \*One subject from List C..... 3

\*For List C, see page 130.

# VI.-COURSE IN TEXTILE ENGINEERING.

## FRESHMAN YEAR.

See page 117.

4

## SOPHOMORE YEAR.

Hours p	er	Hours	ner
First Term. week.	~-	Second Term. wee	
Th. P	'r.	Th.	Pr.
Chemistry 207 2 Quantitative Analysis	3	Chemistry 208 1 Technical Analysis	4
Drawing 201a 0	2	Civil Engineering 206 1	3
Mechanical		Surveying	0
English 203 2 Composition	0	Drawing 202a 0 Mechanical	2
Mathematics 205 5	0	English 204 2	.0
Calculus	Ĩ.	Composition	۱Ť
Mechanical Engineering 205 2 •	0	Mechanical Engineering 208 2	• 2
Elementary Steam Engineering	-	Kinematics	
Military Science 201 or 203 1	2	Military Science 202 or 204 1	2
Physics 203	3	Physics 204	3
General	0	General	•
Textile Engineering 2070	3	Textile Engineering 206 0	3
Weaving	Č	Yarn Manufacture	Ξ.
		· · ·	
15 1	3	10	19
		10	1
•		YEAR. (45th Cat.)	
JUN	IOR	YEAR. $(45 \text{ Cal.})$	
Chemistry 205 S	<u></u>	Chemistry 308 1 Dyeing	4
Electrical Engineering 307 3	0	Electrical Engineering 308 2	3
Electrical Machinery	U	Electrical Machinery	U,
English 303 2	0	English 302 1	0
Argumentation	-	Argumentation	v
Mechanical Engineering 309 0	3	History 306 3	0
Machine Shon	Ū	Citizenship 3	•
Textile Engineering 301	3	Textile Engineering 302 0-	2
Vorn Manufacture		Yarn Manufacture	_
Textile Engineering 303 0	3	Textile Engineering 304 0	3
Fabric Design		Fabric Design	
Textile Engineering 305	3	Textile Engineering 3063-	÷.
Weaving		Weaving 0	4
			<u> </u>
		10	
- <del>10</del> +	12	10	-15 16
- <del>10</del> +	12		-15 16

130

AGRICULTURAL AND MECHANICAL COLLEGE OF TEXAS.

## SENIOR YEAR.

First Term.	Hours wee Th.			s per ek. Pr.
Economics 403	. 3	0	English 402 1	0
<b>Fundamental Principles</b>			Public Speaking 3	4
English 401	1	0	Textile Engineering 402 2	- <del>3</del> -
Public Speaking	0		Yarn Manufacture	
Textile Engineering 401	3	2	Textile Engineering 404 1	0
Yarn Manufacture	2		Fabric Analysis 0	4
Textile Engineering 407	9-	2	Textile Engineering 408	÷
Weaving			Weaving 3	
Textile Engineering 413	1	2	Textile Engineering 410 2	. 0
Cotton Classing	~	-	Mill Management	•
Textile Engineering 415	0	3	Textile Engineering 412 1	0
Fabric Design	3		Magazine Review	
*Elective	-6-		Textile Engineering 416 0	3
TE 405	. 3	0	Fabric Design	
Chem 407	- 2	3	Fabric Design 3 *Elective	4
•	_	_		<u> </u>
	17_	*	- <del>16</del> -	_ھ
*Two sub	1 D	anah	term from List C	15

\*Two subjects each term from List C.

#### LIST B.

Junior electives common to all engineering courses.

English 321	3	0	English 322	3	0
Literature History .307	3	0	Literature History 308	3	0
Europe since 1815 *Military Science	3	2	Industrial History *Military Science	3	2
Modern Lang. 311, 313 or 315. French, German or Spanish	3	0	Modern Lang. 312, 314 or 316. French, German or Spanish		0

#### LIST C.

Senior electives common to all engineering courses.

English 403	3	0	Economics 408	3	0
Public Speaking *Military Science	3	2	Corporation Finance English 404	3	0
Modern Lang. 421, 423 or 425. French, German or Spanish	3	Ð	Public Speaking *Military Science	3	2
Vocational Teaching 423	3	0	Modern Lang. 422, 424 or 426.		0
Psychology Applied to Industry			French, German or Spanish Vocational Teaching 424	3	0
			Training and Supervising Work- ers in Industrial Plants		

\*Note.—If Military Science 305, 306 and Military Science 405, 406 are elected they must be accompanied by Electrical Engineering 309, 310 and Electrical Engineering 409, 410, respectively.

#### XIII.—COURSE IN INDUSTRIAL EDUCATION.

#### FRESHMAN YEAR.

See page 117.

#### SOPHOMORE YEAR.

First Term.	Hours wee Th.			rs per eek. Pr.
Chemical Engineering 201	3	0	Agricultural Engineering 206 2	· 4
Industrial Chemistry Drawing 201 Mechanical	0	3	Gas Engines Architecture 210 2 Carpentry	9
Drawing 203	0	3	Chemical Engineering 208 2	1 Ú
Color Harmony and Design English 203	2	Ű	Metallurgy Electrical Engineering 206 2	2
Composition Mechanical Engineering 201. Pat. Making and Foundry Wo		3	Motors, Wiring, Lighting English 204 2	0
Mechanical Engineering 205.		0	Composition Mechanical Engineering 202 0	3
Elementary Steam Engineeri Mechanical Engineering 207.	ng	2	Pat. Making and Foundry Work Military Science 202 or 204 1	23
Kinematics Military Science 201 or 203.	. 1	2	Physics 204 3 General	3
Physics 203		3	General	
General				
	13	16	14	14

Arch 305 Mech. Equip	JUN-	IOR O	YEAR.
	0	3	Arch
Elementary Arch. Drawing			Me
History 305	3	0	Drav
Citizenship			Ma
Mechanical Engineering 309	0	3	Hist
Machine Shop			Inc
Mechanical Engineering 311	0	3	Mech
Carpentry and Cabinet Making			Ma
Vocational Teaching 305	3	0	Voca
Vocational Education			Ed
Vocational Teaching 311.7.	3	9	*Ele
Job Analysis Rel. Solj.	8		VT
*Elective	7-	0	Ed.
_		_	Fa.
+	6	9	
, Î	9		
	L.		

Architecture 316 3	-0
Mechanical Equipment Drawing 3180	3
Machine Drawing History 308 3	0
Industrial History Mechanical Engineering 310 0	3
Machine Shop Work Vocational Teaching 308 3	0
Educational Psychology *Elective	0
VT 310	0
Ed. + Voc. Utildance	
17	6

.

## AGRICULTURAL AND MECHANICAL COLLEGE OF TEXAS.

	s	ENIOR	YEAR (45th Cat).	
First Term.	Hours	k.	Second Term. we	ek.
	Th.		Th.	Pr.
Economics 403	3	0	Agricultural Engineering 420 2	4
Fundamental Principles English 401	1	0	Auto Mechanics English 402 1	0.
Public Speaking 407 Vocational Teaching 417	2	2	Public Speaking Vocational Teaching 416 3	0
Lesson Planning and Method Teaching 413		0 #	Adm. and Sup of Ind. Ed. 4 *Elective	. 1
Vocational Teaching 421 Class Room Organization an Management	ad g	-2-	V7 412	4
*Elective	<del>10</del>	3		<u></u>
	18-	-4-	-18	-4-
	17	5	16	8

\*Students of Industrial Education are advised to choose their electives with the purpose in view of making themselves strong in some special field of industrial education. Ample opportunities for choosing electives are afforded in the Architectural, Chemical Civil, Electrical, Mechanical, Textile Engineering Departments; and in the Drawing, Mathematics and Physics Departments.

#### COURSE IN ARCHITECTURE.

11

(Leading to the Degree of Master of Science in Architecture.)

#### FIFTH YEAR.

•					
Architecture 501	0	18	Architecture 502	0	18
Architecture 503	2	0	Design Architecture 504	2	0
Advanced Construction			Advanced Construction		
Drawing 509	0	4	Drawing 510	0'	4
Rendering			Rendering		
Horticulture 415	3	4	Horticulture 416	3	4
Landscape Art			Landscape Art		
Elective	3		Elective	3	
÷					5-31 -
			-		3/21

## COURSE IN CHEMICAL ENGINEERING.

(Leading to the Degree of Chemical Engineer.)

#### FIFTH YEAR.

2	12	Chemical Engineering 504 2	2 12
2	4	Advanced Industrial Chemistry Chemical Engineering 506 2	2 4
		Chemical Preparations	
6		Elective 6	5
3		Thesis 3	3
-			
3	16	13	3 16
	2 6	2 $463-$	Advanced Industrial Chemistry 2 4 Chemical Engineering 506 2 Chemical Preparations 6 Elective

#### · · · · · . MECHANICAL ENGINEERING.

## COURSE IN CIVIL ENGINEERING.

(Leading to the Degree of Civil Engineer.)

Each candidate for the advanced degree must select from the list of subjects shown below, or others approved by the head of the course and the Committee on Graduate Studies, at least twenty-one term-hours each term.

#### FIFTH YEAR.

-	_				
First Term.	Hours weel	k.	Second Term.	ours wee	ŀk. ∵
	Th.	Pr.		Гh.	Pr.
Civil Engineering 501 Least Squares	2	0.	Civil Engineering 502 Geodesy	2	0
Civil Engineering 503	2	.0	Civil Engineering 504	2	0
Water Powers			Astronomy		
Civil Engineering 505	2	0	Civil Engineering 506	2	•0
Sanitary Science			Reclamation Engineering		÷
Civil Engineering 507	3	4	Civil Engineering 508	2	6
Advanced Bridge Analysis			Higher Structures		1
Civil Engineering 509	3	3	Civil Engineering 510	3	3
General Civil Engineering			General Civil Engineering		
Civil Engineering 511	1	3	Civil Engineering 512	1	3
Thesis			Thesis		
Civil Engineering 513	3	0	Civil Engineering 514	3	0
Highway Construction and			Highway Financing and		
Maintenance	_	-	Estimating	-	
Civil Engineering 515	1	3	Civil Engineering 516	1	3
Highway Materials			Highway Materials		a
Elective	3	· · ·	Elective	3	
COURSE I	NFIF	CTRI	CAL ENGINEERING.		,
COURSE		UINI	OAL LIVUIVEISIUIVO.		
(Leading to	the Deg	ree of	Electrical Engineering)		

#### (Leading to the Degree of Electrical Engineering).

#### FIFTH YEAR.

Electrical Engineering 501	3	0	Electrical Engineering 502	3	Ú
Advanced Alternating Currents			Advanced Alternating Currents		• -
Electrical Engineering 503	3	0	Electrical Engineering 504	3	0
Electrical Machine Design			Power Plant Design		
Electrical Engineering 505	3	0	Electrical Engineering 506	3	0
General Electrical Engineering			General Electrical Engineering		
Electrical Engineering 507	0	8	Electrical Engineering 508	0	8.
Laboratory			Laboratory		
Elective	6		Elective	6	
Thesis	2		Thesis	2	
		_	· -		
	17	8		7	8

#### COURSE IN MECHANICAL ENGINEERING.

(Leading to the Degree of Mechanical Engineer.)

#### FIFTH YEAR. Mathematics 501 ..... 4 Mathematics 502 ..... 4 0 0 Differential Equations Mechanical Engineerin'g 502... 2 Calculus Mechanical Engineering 501... 2 4 4 General Mechanical Engineering General Mechanical Engineering Mechanical Engineering 503... 3 Mechanical Engineering 504... 3 0 0 **Power Plants Power Plants** Mechanical Engineering 509... 1 6 Mechanical Engineering 510... 1 6 Thesis Thesis Elective ..... 5 Elective ..... . 5 10 15

15 10 · ...

## H.-TWO-YEAR COURSE IN TEXTILE ENGINEERING.

## FIRST YEAR.

First Term,	Hours wee		Second Term.	Hours	
	Th.	Pr.		Th.	Pr.
Drawing 11	0	3	Drawing 12	0	3
Mechanical	•		Mechanical	0	
Drawing 13	0	1	Drawing 14	0	1
Freehand	-		Freehand		
English 31	3	0	English 32	3	0
Practical Composition			Practical Composition		
Mechanical Engineering 21	4	0	Mechanical Engineering 22	4	0
Power and Heat			Power and Heat		
Mechanical Engineering 25	0	4	Mechanical Engineering 26	0	4
Forging			Woodwork		
Military Science 11		2	Military Science 12	1	2
Physics 11		2	Physics 12		2
Elementary	4	4		4	-
Textile Engineering 11	۵	3	Elementary Toyytila Engineering 19	٥	3
	0	э	Textile Engineering 12		J
Designing		0	Designing		
Textile Engineering 13	4	3	Textile Engineering 16	. 3	3
Yarn Manufacture			Weaving		
	14	18		13	18

#### SECOND YEAR.

Chemistry 51	. 3	2
Practical Chemistry Mechanical Engineering 61	. 0	3
Machine Shop Practice Mechanical Engineering 75	. 4	0
Engines and Boilers Military Science 51		2
Textile Engineering 51		2
Yarn Manufacture Textile Engineering 53	0	• 3
Designing Textile Engineering 55	3	2
Weaving Textile Engineering 61	1	2
Cotton Classing		
	15	16

2	Chemistry 54 2	2
3	Dyeing Mechanical Engineering 62 0	3
0	Machine Shop Practice Mechanical Engineering 76 4	0
2	Engines and Boilers Military Science 52 1	2
2 2	Textile Engineering 52 3	4
3	Yarn Manufacture Textile Engineering 54 0	3
2	Designing Textile Engineering 56 3	4
2	Weaving Textile Engineering 58 1	0
	Fabric Analysis	
16	14	18

## ENGINEERING.

## N.-TWO-YEAR COURSE IN ENGINEERING.

FIRST Y	EAR.
---------	------

First Term. Drawing 11 Mechanical Drawing 13 Freehand Elementary Electricity English 31 Practical Engineering 21 Practical Engineering 21 Power and Heat Mechanical Engineering 25 Forging Military Science 11	. 0 . 4 . 3 . 4 . 0	ek. Pr. 3 1 4 0 0 4 2	Second Term. Drawing 12	.0 .4 .3 .4 .0	ек. Pr. 3 1 4 0 0 4 2
Physics 11 Elementary	. 2	$\frac{2}{16}$	Physics 12 Elementary	. 2 	$\frac{2}{16}$
1		SECOND	- ••		
Electrical Engineering 55 Alternating Currents Mechanical Engineering 75		4 0	Electrical Engineering 56 Electrical Machinery Mechanical Engineering 76		4 0
Engines and Boilers Mechanical Engineering 63 Engineering Laboratory	. 0	3	Engines and Boilers Mechanical Engineering 64 Engineering Laboratory	. 0	3
Military Science 51	$\frac{1}{10}$	2 	Military Science 52	$\frac{1}{10}$	2 

And one of the following groups:

# GROUP 1.

Electrical Engineering 65	3	0	Electrical Engineering 66 3	0
Applied Electricity Electrical Engineering 61	0	4	Applied Electricity Electrical Engineering 62 0	4
Electrical Laboratory Mechanical Engineering 61. Machine Shop	0	3	Electrical Laboratory Mechanical Engineering 62 0 Machine Shop	3
Machine Bhop		GROU		

Mechanical	Enginering	65	3
	ods Engin'eering nd Machine Sl		0

2	Mechanical Engineering 66	3	2
5	Shop Methods Mechanical Engineering 72 Foundry and Machine Shop	0	5

# XI.-COURSE IN VETERINARY MEDICINE.

#### FRESHMAN YEAR.

FRESH	IAN IEAK.		
Hours per		Hour	s per
First Term, week.	Second Term.		ek.
Th. Pr.		Th.	Pr.
Biology 101 2 4	Biology 102	2	4
General Botany	General Botany		
Chemistry 101 3 3	Chemistry 102	. 3	3
Inorganic	Inorganic		
English 103 3 0	English 104	. 3	0
Rhetoric and Composition	Rhetoric and Composition		
Mil. Sci. 101, 103 or 105 1 2		. 1	2
Physics 111 2 2	Physics 112	. 2	2
Agricultural Physics	_Agricultural Physics		2
Veterinary Anatomy 111 3 6	JJJJJ	. 3	6
Veterinary Phys. and Phar. 121 2 0	Veterinary Phys. and Phar. 12	22 2	0
Physiology	Physiology		
· · · · · · · · · · · · · · · · · · ·			<del></del>
16 17	·	16	17
	·		
<b>ВОРНОМО</b>	RE YEAR		
	202		
$\begin{array}{c} 766 \\ \text{Biology } 209 \\ 209 \\ 209 \\ 4 \end{array}$	Animal Husbandry 204	. 2	- 2
General Bacteriology	Judging 207		
English 203 2 0	Judging <b>27</b> Biology 208	. 2	4
	Zoology		
Composition Entomology 203 3 2	Chemistry 206	. 3	2
Veterinary Entomology	Organic		
Military Science 201 or 203 1 2		. 2	0
Veterinary Anatomy 211 3 6	Composition		
Anatomy of Domestic Animals	Military Science 202 or 204.	1	2
Veterinary Anatomy 213 2 4	Veterinary Pathology 242	. 3	2
Histology and Embryology	General		
Veterinary Phys. and Phar. 221 2 0	Veterinary Phys. and Phar. 22	223	4
Physiology	Physiology		
· · · · · · · · · · · · · · · · · · ·			
15 18		16	18
	· · · · · · ·		
JUNIOR	YEAR.		•
a da da en la compañía de la compañía	- <u>-</u>		•
Dairy Husbandry 301 2 2	Animal Husbandry 302	. 2	2
Market Milk	Animal Breeding		
English 301 1 0	English 302	. 1	0
Argumentation	Argumentation		×.
Vet. Med. and Surgery 371 0 7	Vet. Med. and Surgery 372	. 0	12
Clinic	Clinic		
Veterinary Medicine 351 3 0	Veterinary Medicine 352	. 3	0
Non-infectious Diseases	Non-infectious Diseases		
Veterinary Pathology 341 2 0	Veterinary Pathology 342	. 2	4
Special	Special		~
Veterinary Pathology 343 2 4	,	. 3	0
Special Bacteriology	Pharmacology	•	~
Veterinary Pharmacology 333. 3 4	, suggest and	. 3	i)
Pharmacology	General		
Veterinary Surgery 361 3 0	Elective	. 3	
General 7			
Elective 3			
		1 77	10
19 17		17	18

## SENIOR YEAR.

First Term.	Hour wee Th.	ek.	Second Term.	Hours	ek.
Animal Husbandry 409		гг. 2	English 402		гг. 0
Animal Nutrition		. –	Public Speaking		v
English 401	1	0	Vet. Med. and Surgery 472.	0	- 7
Public Speaking			Clinic		
Veterinary Medicine 453	3	0	Veterinary Medicine 452	3	0
Infectious Diseases	0	-7	Practice of Medicine and		
Vet. Med. and Surgery 471. Clinic		4	Jurisprudence Veterinary Pathology 444	2	2
Veterinary Medicine 451	3	Ō	Laboratory Diagnosis	·· -	
Diseases of Small Animals a			Veterinary Pathology 442	2	2
Fowls		-	Meat Hygiene		
Veterinary Pathology 441	2	2	Veterinary Pharmacology 43	2.1	. 2
Immunology and Serum Therap			Toxicology	•	
Veterinary Pathology 443	z	2	Veterinary Surgery 462	3	4
Parasitology Veterinary Surgery 461	2	Ð	Operative Elective	2	
Obstetrics		v	THEORINE		
Elective	3				
,	<u> </u>	-		_	_
	19	ï3		15	17

## 3 AGRICULTURAL AND MECHANICAL COLLEGE OF TEXAS.

## X.-COURSE IN SCIENCE.

(For the Session 1922-23, this course will be open to Freshmen only.)

#### FRESHMAN YEAR.

÷	First Term.	Hours wee Th.	ek.	Second Term.		ek. Pr.
0.	103	2	4	Biology 104	2	4
Botany Chemist Inorga	ry 103	3	4	Botany Chemistry 104 Inorganic	3	4
Drawing	g 119	0	<b>2</b>	Drawing 120	0	2
	103	3	0	Freehand English 104	3	0
Rhetor Mathem	ic and Composition atics 101	3	0	Rhetoric and Composition Mathematics 106	3	0
Algebr Military	a Science	1	2	Trigonometry Military Science	1	2
Physics	103		2	Physics 104	3	2
College	Physics			College Physics	_	
		15	14	-	15	14

#### SOPHOMORE YEAR.

English 203	2	0	English 204 5	29
Composition History 207	3	U	Composition History 206	3 U
Europe Since 1817 Military Science	1	2	Citizenship Military Science	1 2
Modern Lang. 211, 213 or 215.	3	0	Modern Lang. 212, 214 or 216.	30
French, German or Spanish *Elective10 to 1	0		French, German or Spanish *Elective10 to 12	
*Elective	. 4		· · · · · · · · · · · · · · · · · · ·	
2	21	2	21	2

\*Three subjects each term are to be elected from the following:

Biology 203, 204, Zoology	2	4
Chemistry 201, 202, Organic	3	4
Entomology 205, Systematic; 206, Economic	2	2
Geology 201, Physical Geography; 202, Industrial and Commercial Geog-		
raphy		<b>2</b>
Physics 201, 202, General	3	3

Note.—The student who plans to take Physics in the junior year must substitute Mathematics 104 for one of the specified sophomore electives for the second term; and must take Mathematics 303, 304 in the junior year.

#### JUNIOR YEAR.

Economics 305 3	0	Economics 312 3	0
Fundamental Principles English 303		Money and Banking English 304 2 Argumentation *Elective	0.
Elective		Elective	
21	0	21	0

#### SCIENCE.

#### SENIOR YEAR.

First Term.	Hours wee Th.	k.		irs per veek. . Pr.
English 401	1	0	English 402 1	0
Public Speaking English 423 Contemporary Literature		0	Public Speaking English 424 2 Contemporary Literature	0
Rural Sociology 411		0	Rural Sociology 412 3	0
Social Psychology *Elective		Ň	General Sociology *Elective15	
	·			
	21	U	21	0

\*The electives are to be chosen from the following list, and for each year must include:

(a) Two science subjects; of the two elected in the junior year, one must be continued through the senior year.
(b) One of the following: Literature, Modern Language, History.

## LIST OF JUNIOR AND SENIOR ELECTIVES.

Dislam 200 010 Coursel Destatishers 400 410 August 1		
Biology 309, 310, General Bacteriology; 409, 410, Analytical Bacteriol-	~	
		4
Biology 303, 304, Plant Physiology; 403, 404, Plant Pathology		4
Biology 317, 318, Vertebrate Anatomy; 419, 420, General Embryology	2	4
Chemistry 315, Qualitative Analysis; Chemical Engineering 312 (Quan-		-
titative)	2	8
Chemical Engineering 411, Physical Chemistry; 414, Sanitary Chemistry.:	3	4
Drawing 319, Mechanical; 320, Freehand		. 2
English 321, 322, Victorian Literature		0
Entomology 311, 312, Systematic; 411, 412, Economic	2	4
Entomology 307, (3-2); 304 (Apiculture)	<b>2</b>	2
Entomology 312, Medical Entomology		2
Entomology 403, Entomological Literature (3-0); 408, Queen Rearing		4
Geology 301, General; 302, Historical		2
Geology 401, Mineralogy (1-6); 402, Economic		2
Geology 403, Petrology (2-4); 404, Petroleum Geology		3
History 411, 412, The Outline of History		0
Mathematics 303, 304, Calculus (5-0); 502, Differential Equations		0
Military Science		2
Modern Languages, 421, 422, French; 423, 424, German; or 425, 426,		
Spanish	3	0
Physics 301, Properties of Matter; 302, Heat	3	3
Physics 401, Optics; 402 Electricity and Magnetism	3	3
Physics 403, Kinetic Theory; 404, Electron Theory	3	0
	1. 1	i f
	à	C to A

e de sette a company

\*

. .

## COURSES OF INSTRUCTION BY DEPARTMENTS.

The courses of instruction are described on the following pages under the department in which they are offered. Courses from 101 to 199 are for freshmen, 201 to 299 for sophomores, 301 to 399 for juniors, 401 to 499 for seniors, 501 to 599 for graduate students; 1 to 49 for first-year students in short courses; 51 to 99 for second-year students in short courses. First-term courses are given odd numbers, secondterm courses, even numbers.

The figures in parenthesis following the name of a course indicate the number of hours per week, theory and practice, respectively, devoted to the course.

For convenience of reference, the departments are listed here in alphabetical order:

Par	age Pa	age
Agricultural Economics 14		204
	146 History	209
Agronomy 18	150 Horticulture	210
	154 Mathematics	216
Architecture 10		218
	163 Military Science and Tactics	224
Chemistry and Chemical Engi-	Modern Languages	231
neering 10	167 Physics	232
	175 Rural Sociology	235
Dairy Husbandry 18	182 Textile Engineering	239
Drawing 18	184 Veterinary Anatomy	242
Economics 18	188 Veterinary Medicine and Surgery.	243
		245
English 19	195 Veterinary Physiology and	
Entomology 19		247
	201 Vocational Teaching	249
Forestry	203	

#### DEPARTMENT OF AGRICULTURAL ECONOMICS.

PROFESSOR BUECHEL.

#### 201. Principles of Accounting. (1-4).

Theory and application of double entry bookkeeping, the use of the journal and other books of original entry; the ledger and its subdivisions; the trial balance, financial and operating statements; theory and classification of accounts; practice work for different types of business organizations, such as the single proprietor, partnership, and co-operation.

Texts: Principles of Bookkeeping, Miner and Elwell; Accounting, Theory and Practice, Kester.

(Required in XIV).

#### 202. Principles of Accounting. (1-4).

This course is a continuation of 201. Numerous accounting problems are given involving such principles as opening and closing corporation books; changing from a single proprietorship to a partnership; from a partnership to a corporation, etc. Courses 201 and 202 are prerequisite to all other courses in accounting, including farm cost accounting.

Texts: Same as in 201.

(Required in XIV).

#### 204. Agricultural Resources. (3-0).

Influence of climate, soil, and topography upon agriculture and industry. A statistical study of the agricultural resources of the world is made and the reasons for the prevailing distribution of agricultural products are sought. The various types of agriculture are first studied from the standpoint of environmental conditions rather than artificial political subdivisions, such as a nation or state. Comparisons are then made between the agricultural resources of the United States and the rest of the world, and between Texas and the rest of the United States. The relation between agriculture and industry is shown.

Text: Commerce and Industry, J. Russell Smith.

(Elective in I, XIV, group 1).

## 301. Agricultural Economics. (2-2).

Among the topics considered are the following: Scope and aims of agricultural economics; analysis of the factors in agricultural production, such as the supply of arable land in the nation, its classification and order of utilization; the amount and character of labor required in different parts of the United States; migratory labor; possibilities of improving type and conditions of agricultural labor; marketing, agricultural finance, co-operation, transportation. Distribution, including theories of rent, value of land and its relation to rent, methods of renting. Consumption, its effect upon rent, wages, interest, and national prosperity. Agriculture and the State-tariffs, land settlement, taxation, and credit.

Text: Agricultural Economics, Taylor. (Required in XIV).

302. Agricultural Economics. (2-2).
Same as course 301. (Required in XIV, session 1922-23).

303. Theory and Practice of Accounting. (1-4)

Problems in valuation, good will, reserves and funds; consolidated statements; branch house accounting; insolvency accounting. Advanced problems in accounting, theory, and practice; C. P. A. examination questions.

Text: To be selected.

(Elective in XIV, group 1).

## 305. Statistical Methods. (1-4)

The meaning and application of statistics and statistical methods. Recent figures relating to Texas agriculture are arranged in tables and diagrams and are used as a basis for practice exercises on averages, dispersion, index numbers, historical series, and for the determination of coefficients of correlation, variation, etc. The immediate aim of the course is to give training in the technique of the more common statistical manipulations so that the student may attack an actual problem in the social sciences with accuracy and confidence.

Text: Elements of Statistical Method, King.

(Required in XIV).

#### 308. Cost Accounting. (1-4).

This course deals with elements entering into cost of production, including the accounting for materials, labor, and overhead expenses; cost data and their interpretation; and the organization of cost systems.

Text: To be selected.

Prerequisite: Agricultural Economics 303.

(Elective in XIV, group 1).

## 401. Marketing. (3-0)

The economic basis of marketing. The various services in the process of marketing such as grading and standardizing, packaging, processing, transporting, storing, financing, and distributing farm products. Essentials of success; fundamentals of co-operative marketing; marketing methods, marketing agencies; the market and price making; weaknesses in the present marketing system; organization the basis of improvement; future trading; government authority in relation to marketing; marketing by federation.

Text: Marketing of Agricultural Products, Hibbard. (Required in XIV).

402. Property and Contract. (3-0).

Problems of property and the social theory of property; conscious social action with reference to property and the evolution of property; the several classes of property; property and economic theory; property and the individual; property and the future; property and contract.

Text: Property and Contract, Ely.

(Required in XIV).

403. Auditing. (1-2).

Preparation of audit reports; C. P. A. examination questions in auditing.

Text: To be selected.

Prerequisite: Agricultural Economics 308.

(Elective in XIV, group 1).

405. Historical Development of Agricultural Economics. (2-0).

Agricultural economics defined and described. Origin of agricultural economics; historical developments of agricultural economics in Rome, England, Germany, and France. This part of the historical work deals very largely with the biographical sketches of the writers concerned and with the history of economic conditions at the time they wrote, especially as related to agriculture. Relation of agricultural economics to general economics; deals with the early French economists, with the classical economists, and with the critics of the classical economists. Relation of agricultural economics to agriculture; deals especially with works of men like Arthur Young, Albrecht Thaer, and Von Thunen. Modern agricultural economics; relation of general economics to agriculture. The courses of interest in agricultural economic subjects. Recent developments in agricultural economics; relation of agricultural economics to farmers' movements; essentials of a sound agricultural economics course.

Text: To be selected.

(Elective in XIV, group 1).

#### 406. Advanced Marketing Problems. (1-2).

An intensive study is made by each student of some current marketing problem. Field work is required in connection with the course.

Text: To be selected.

Prerequisite: Agricultural Economics 401. (Elective in XIV, group 1).

## 407. Ranch Economics. (3-0).

The respective domains of the farmer and the grazier; ranch economics defined; the area described; historical sketch of ranching; ranch lands; the size of ranches; the carrying capacity of the ranches; permanent improvemental movable equipment; products of the range; the conservation of the ranch; problems of acquiring a ranch; ranch credits; ranch labor.

Text: To be selected.

(Elective in XIV, group 1).

## 408. Agricultural Finance. (2-0).

A study of short, medium, and long term credit needs of farmers; a brief survey of European co-operative credit systems. Special attention is given to such credit institutions as the Federal Farm Loan System and War Finance Corporation, and a comparative study is made of the farm credit institutions of various States.

Text: To be selected.

(Elective in XIV, group 1).

#### 409. Land Problems and Land Policies. (2-0).

Definition of term and historical setting; land defined and described; land classification; economics of agricultural land; economics of forest land; economics of mineral land; economics of water rights; economics of riparian rights; economics of urban land; economics of land for highways; economic foundations of a land policy; land policy of some of the leading European countries; land policy of the United States; Texas land policy; a sound land policy for Texas.

Text: To be selected.

(Elective in XIV, group 1).

#### 410. Transportation. (3-0).

A brief historical survey of transportation. Special attention is given to current transportation problems, including the Esch-Cummins bill; relation between agriculture and transportation.

Text: To be selected.

(Elective in XIV, group 1).

411. Agricultural Economics. (2-2).

Same as course 301. (Required in I).

#### 412. Public Finance and Taxation. (3-0).

Principles of taxation and the more important taxes such as the general property tax, income tax, and inheritance tax, proposals for tax reform; relative tax burdens on agricultural land; public expenditures; budgets, and budgetary legislation.

Text: To be selected.

(Elective in XIV, group 1).

#### 413. Advanced Statistics. (1-4).

Business statistics; various series of index numbers; determination

of secular trend. Each student will select a statistical problem for a term report.

Text: To be selected.

Prerequisite: Agricultural Economics 305. (Elective).

414. Public Accounting. (1-2).

Devising of accounting systems, with special reference to agricultural organizations; advanced auditing problems; C. P. A. examinations.

(Elective in XIV, group 1).

415. Statistics. (3-0).

Same as Economics 405 of the 45th Catalogue. (Required in XIV, sessions 1922-23, 1923-24).

## DEPARTMENT OF AGRICULTURAL ENGINEERING.

PROFESSOR SCOATES, ASSOCIATE PROFESSORS SNYDER, H. P. SMITH, MR. KING, MR. F. R. JONES.

201. Farm Machinery. (2-2).

The practical study of all types of farm machinery; tilling, seeding, cultivating, harvesting, fertilizing and power machinery.

The practice consists of a detailed study of the construction, adjustment, calibration and operation of all types of farm machinery.

Demonstrations and tests are made under field conditions.

(Required in C, M).

**203.** Gas Engines. (2-2).

This course deals with the farm gas engine, its operation, care and repair. The practice consists of the operation, testing and examination of the different types of farm gas engines. Laboratory fee, \$1.50.

(Required in XII; elective in C and in I).

204. Farm Machinery. (2-2). Same as course 201. (Required in I).

206. Gas Engines. (2-4).

Same as course 203, with two hours more laboratory. Laboratory fee, \$1.50.

(Required in M and in XIII).

211. Gas Engines. (2-4).

Same as course 206. Laboratory fee, \$1.50. (Required in XV).

214. Tractors. (2-4).

Same as course 317. Laboratory fee, \$2.00. (Required in XV).

## 302. Repair of Farm Machinery. (0-4).

The overhauling, repairing and painting of farm machinery, and the use of repair catalogues.

Prerequisite: Agricultural Engineering 201. (Required in M; elective in I).

#### 304. Drainage. (2-2).

A study of farm drainage, i. e., open ditches, terracing and tile drains. Laboratory practice consists of surveying for tile drains, laying off and building terraces.

Prerequisite: Civil Engineering 319. (Elective in I).

## 305. Surveying and Drainage. (3-4).

A study of farm surveying and the principles of farm drainage, as applied to open ditches, terracing, and tile drains.

The practice consists of surveys of various parts of the farm with tape and level, computation of areas, map making, tile laying, locating and building terraces.

(Required in I, group 3; elective in all other groups and in C; required in M).

#### 314. Tractors. (2-4).

Same as course 317. Laboratory fee, \$2.00.

Prerequisite: Agricultural Engineering 203.

(Required in I, group 3; elective in all other groups and in C).

#### 316. Irrigation. (2-2).

A study of the principles of irrigation practice, source of water supply, and methods of application to various crops, the measurement and duty of water.

The practice consists of measuring water and the laying out of ditches and irrigation systems.

(Elective in I, M, C).

## 317. Tractors. (2-4).

A study of the design, operation and repair of different types of gas tractors.

The practice consists of a study of the different parts of gas tractors, with tests. Laboratory fee, \$2.00.

Prerequisite: Agricultural Engineering 203.

(Elective in I, all groups; required in M).

#### 318. Farm Shop. (1-6).

This course is especially designed for students intending to teach agricultural engineering in vocational schools. The work includes such subjects as are usually taught in vocational high schools, such as soldering, belt lacing, rope knots and splices, concrete construction, carpentry, and sufficient forging to enable the student to make ordinary farm repairs. Laboratory fee, \$2.50.

(Required in XII).

**320.** Farm Machinery. (2-4).

Same as course 204, with two hours more laboratory. (Required in XV).

402. Automobiles and Motor Trucks. (2-4).

The study of the construction, care, repair and operation of the gasoline automobile and truck.

The practice consists of a study in the laboratory of various types of construction as applied to the different parts of the modern automobile and motor truck. Laboratory fee, \$1.50.

Text: The Gasoline Automobile, Hobbs, Elliott and Consoliver.

Prerequisite: Agricultural Engineering 203.

(Required in I, group 3; elective in other groups; required in XV, M; elective in C).

404. Experimental Agricultural Engineering. (0-6).

A course for advanced undergraduates who are especially interested in solving some agricultural engineering problem.

(Elective).

#### 409. Farm Concrete. (1-2).

A study of the selection of materials used for concrete, and their proper mixing, placing and curing, together with the construction of concrete structures such as are found on the farm.

The practice consists of the design and construction of molds and forms, methods of reinforcing, and proportions of mixture to be used in various farm buildings and equipment. Laboratory fee, \$1.50.

(Required in M; elective in I, C).

410. Irrigation. (2-0).

A modification of course 316. (Required in XV).

#### 413. Farm Buildings. (2-4).

The study of building materials, and of the design and location of farm buildings. Ventilation, lighting, heating, water supply, plumbing, sewage disposal are studied briefly in their relation to rural conditions.

Practice in the use and care of drawing instruments. Complete working drawings, with tracings and blue prints of farm buildings are made.

(Required in I, group 3; XV and in M; elective in all other groups of I).

414. Farm Buildings. (0-4).

A continuation of course 413. Complete plans, specifications and bills of material are worked up for various farm buildings.

(Required in M; elective in I).

415. Drainage. (2-2). Same as course 304. (Required in XV).

418. Designing of Farm Structures. (3-2).
A continuation of course 413. (Required in XV).

420. Auto Mechanics. (2-4).

The study of the construction, care, repair and operation of the gas engine and of the automobile.

The practice consists of the operation, testing and examination of the gas engine and the automobile. Laboratory fee, \$1.50.

(Required in XIII).

#### FOR STUDENTS IN SHORT COURSES.

31, 32. Shop Computations. (3-0).

An elementary course in shop computations involving the application of algebra, geometry and trigonometry to shop work.

Text: Advanced Shop Mathematics, Norris and Craigo. (Required in M).

#### FOR GRADUATES.

501, 502. Advanced Drainage and Irrigation. (3-4). Major.

This course consists of an advanced study of farm drainage and irrigation. Recent developments in these subjects are reviewed, the student using bulletins, scientific journals and advanced text-books.

Original designs of drainage and irrigation systems are made to fit conditions on typical farms. Drainage is taken up the first term, and irrigation the second.

501a, 502a. Advanced Drainage and Irrigation. (2-4). Minor. A modification of course 501, 502.

#### DEPARTMENT OF AGRONOMY.

PROFESSOR MORGAN, PROFESSOR HUMBERT, ASSOCIATE PROFESSORS WOOD, STALLINGS, MR. STURKIE, MR. CORPENING.

102. Field Crops. (3-2).

This course includes a detailed study of the following field crops: cotton, corn, wheat, oats, rye, barley, rice, the saccharine and non-saccharine sorghums, sugar cane and peanuts. Each crop is considered from the standpoint of origin, varieties, improvement, tillage practices, harvesting and uses.

Text: Field Crops for the Cotton Belt, Morgan.

In the laboratory, field, and greenhouse, the student makes a detailed study of the important characteristics of these crops, including varietal studies. Special consideration is given to the seeds of these crops, particularly as regards those points that determine value.

(Required in I).

103. Field Crops. (3-2). Same as course 102. (Required in XIV).

202. Field Crops. (3-2). Same as course 102. (Required in XII).

301. Soils. (3-2).

This course gives the student a rather comprehensive knowledge of the soil and its management. It is given according to the following outline:

(a) The soil as a medium for root development, including a study of rock and its products; the soil mass, together with the physical properties of the soil and their modification; the organic content of the soil.

(b) The soil as a reservoir for water, including the functions of water in plant growth; the amount of water in the soil; the movement of soil water, and the control of soil water.

(c) Plant nutrients in the soil, including a careful study of both micro-organisms and macro-organisms, as they influence soil productiveness.

(d) The soil air; composition and functions of.

(e) The heat of the soil; comprising a study of the sources, functions and means of modifying soil temperature.

(f) External factors in soil management; tillage, crop adaptation, etc.

Text: Soils, Lyon, Fippin and Buckman.

#### AGRONOMY.

In the laboratory the student applies the principles learned in the class room to the actual management of soils. Laboratory fee, 50 cents.

Prerequisite: Chemistry 101, 102.

(Required in I, XII; elective in XIV).

#### 308. Forage Crops. (2-2).

This course includes a detailed study of the problems of forage production. It is given in accordance with the following outline: A general consideration of grasses and legumes as forage producers; the preservation of forage; the choice of forage crops; forage crop seeds as regards genuineness, purity, viability, adulterations, source, and seeding practice; permanent and temporary meadows; permanent and temporary pastures; a detailed study of the important hay and pasture crops adapted to southern agriculture.

Text: Forage Crops, Piper.

The practice includes a field and laboratory study of the various forage crops, and a laboratory study of forage crop seeds as regards all points that determine value.

(Required in I, XII; elective in XIV).

#### 305. Genetics. (2-2).

This course comprises a fundamental study of the resemblances and differences in individuals related by descent, to the end that these relationships may be accounted for.

The important divisions of the work as presented are as follows: variation, including a statistical study of variation; the various phases of Mendelism, including the physical basis of Mendelism, independent Mendelian inheritance, linkage relations in Mendelism, the nature and expression of Mendelian factors, allelomorphic relationships in Mendelism; inheritance of sex and related phenomena; species hybridization; pure lines; mutations.

Text: Genetics in Relation to Agriculture, Babcock and Clausen.

In practice the student makes such studies in the laboratory, greenhouse and field as will give him first-hand acquaintance with the phenomena of variation and heredity.

Prerequisite: Biology 101, 102, 201, 202.

(Required in I, groups 4, 5, 7, 9).

## 306. Plant Breeding. (2-2).

This course deals with the various methods applicable to the improvement of our common field, forage, and horticultural crops. These methods are considered primarily from the standpoint of their technique and relative value.

In the greenhouse and field laboratory, practice in hybridizing field, forage and horticultural crops, and also in making field selections is given.

Prerequisite: Agronomy 305.

(Required in I, group 4; elective in group 9).

312. Genetics. (2-2).

A continuation of course 305. (Elective).

## 405. Grain Grading. (1-4).

This course is designed for students who desire to become licensed grain inspectors, or who expect to engage in the grain business from the standpoint of production or marketing. Detailed instruction is given in the matter of grading grains according to the Federal standards established by the recent Grain Standards Act. In the theory the work deals largely with the provisions of the United States Grain Standards Act as regards its value in foreign, interstate, intrastate and local trade, the organization to carry out the provisions of the act, and the bases upon which the grades are established. The practice work is devoted entirely to the commercial grading of wheat, corn (both in the ear and shelled), oats, rice, and the grain sorghums (both in the head and the threshed grain).

(Elective in I, group 4).

## 406. Soil Mapping. (0-3).

In this course special consideration is given to the methods employed in classifying soils, and the benefit derived from soil survey work.

The students make a field study of the various soil types found in the surrounding locality. This area is surveyed and mapped according to the methods employed by the Bureau of Soils of the United States Department of Agriculture. In this work the student is taught the use of the plane table and map making.

Prerequisite: Agronomy 301.

(Elective in I, groups 1, 4).

## 407. The Principles of Dry Farming. (3-0).

This course deals specifically with the accepted principles of soil management and crop production in regions of limited rainfall.

(Elective in I, group 4).

## 410. Soil Fertility. (2-2).

A special study of the various fertility factors and the influence of different methods of soil treatment and management upon these factors. The student will make a detailed study of soils taken from especially selected experimental plots, and if possible from the student's home farm. Laboratory fee, \$1.00.

Prerequisite: Agronomy 301.

(Required in I, group 4).

## 412. The Origin, Classification and Breeding of Cotton. (2-2).

The work of this course falls into three divisions, as follows:

(1) A study of the known species of cotton from the standpoint of our present knowledge of their origin and classification;

#### AGRONOMY.

(2) The characteristics and adaptation of the more important varieties of cotton;

(3) Inheritance studies in cotton. Prerequisite: Agronomy 305. (Elective in I, group 4).

#### FOR GRADUATES.

## 501, 502. Advanced Farm Crops. (3-4). Major.

This course comprises an advanced study of field crop production and breeding, most attention being given to the recent developments in the field of plant breeding. The student takes up first a study of the principles of genetics. This is followed by a rather comprehensive study of the recent literature of field crop breeding and crop production. The course of study is so directed as to cover as thoroughly as possible the results of the more recent and noteworthy investigations relative to the various phases of crop production and breeding. A thesis, based upon original investigation, is required as part of this course.

501a, 502a. Advanced Farm Crops. (2-4). Minor. A modification of course 501, 502.

503, 504. Advanced Genetics. (3-4). Major.

This course includes a specialized study of the more important principles of inheritance. Plant and animal material is provided with which the student may study at first hand the inheritance of those characters in which he is particularly interested.

## 503a, 504a. Advanced Genetics. (2-4). Minor.

A modification of course 503, 504.

#### 505, 506. Advanced Soils. (3-4). Major.

This course consists of two parts: (1) a concise account of our present knowledge of the soil as a medium for plant life; (2) a detailed study of the more recent and noteworthy investigations pertaining to soils and soil fertility. Free use is made of such publications as "Soil Conditions and Plant Growth," by E. J. Russell; "Soil Science," "The Journal of Agricultural Research," and "The Journal of American Society of Agronomy." A thesis, based upon original investigation, is required as a part of this course.

505a, 506a. Advanced Soils. (2-4). Minor.

A modification of course 505, 506.

#### FOR STUDENTS IN SHORT COURSES.

25. Soils. (3-2).

This is an elementary study of the origin, structure, texture, and crop adaptations of agricultural soils. Soil fertility and its maintenance; manures, fertilizers, cover crops, fallowing, fall and spring plowing, crop rotations, diversification, and the renovation of worn-out soils receive attention in their proper order.

Text: Productive Soils, Weir.

Laboratory and field studies on the water holding capacity of soils, capillarity, the influence of organic matter on the physical properties of soils, lime and its effects on soils, constitute a part of the course. Laboratory fee, 50 cents.

(Required in C, M).

#### 30. Elementary Crop Production. (3-2).

This course consists of an elementary study of the leading field and forage crops, special emphasis being placed on those crops primarily adapted to southern agriculture.

Text: Productive Farm Crops, Montgomery.

The practice consists of a field and laboratory study of farm crops, noting particularly those points that constitute ideal seed plants. When opportunity permits, the improved practices involved in crop production are studied in the field.

(Required in C, M).

## 55. Elementary Plant Breeding. (2-2).

This course includes a study of the elementary principles of inheritance and their application to the improvement of farm crops.

(Elective in C).

## DEPARTMENT OF ANIMAL HUSBANDRY.

PROFESSOR TEMPLETON, PROFESSORS STANGEL, WILLIAMS, ASSOCIATE PROFESSORS CONWAY, BUCHANAN, MCQUILLEN, ASSISTANT PRO-' FESSOB REGENBRECHT, MR. WALSER, MR. KOEHLER.

The courses in the Department of Animal Husbandry may be grouped under the four main heads:

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

The courses are as follows:

101. Judging Market Types of Beef Cattle and Sheep. (0-4).

The lectures are explanatory of the various classes and grades of beef cattle and sheep recognized in the leading stock markets. The points of these and their value to the stockman, the butcher and the 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 beef carcasses as far as possible. Comparative judging constitutes an important part of the work.

Text: Types and Market Classes of Live Stock, Vaughn: (Required in I, XIV, C).

102. Judging Market Types of Horses and Swine. (0-4).

The classes and grades 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. Comparatile judging is also an important factor in this course.

Text: Types and Market Classes of Live Stock, Vaughn. (Required in I, XIV, C).

#### 103. Live Stock Production (Beef Cattle and Sheep). (2-4).

A general course briefly covering the various phases of beef cattle and sheep production, including judging, breeding, care, and management. This course is especially designed to meet the needs of students taking Agricultural Education.

Text: Types and Market Classes of Live Stock, Vaughn. (Required in XII).

## 104. Live Stock Production (Hogs and Horses). (2-4).

This is a continuation of course 102, covering hogs and horses. (Required in XII).

106. Farm Poultry. (2-2).

Same as course 201.

(Required in C).

## 201. Farm Poultry. (2-2).

This is a general course on farm poultry and treats of the breeds and types of poultry; the principles of breeding and mating of fowls; incubation and brooding; feeding for growth and egg production; winter and summer management; housing and hygiene; sanitation; disease; parasites and their treatment; preparing poultry for market; marketing. It deals with the practical application of these principles to general farm conditions.

Text: Poultry Production, Lippincott.

The practice work consists of the study of breeds and types, incubators and brooders, housing, judging of fancy and utility poultry, candling and grading of eggs and poultry products, killing and dressing poultry.

(Required in XII; elective in I, C).

202. Judging Breed Types of Cattle, Horses, Sheep and Swine. (2-2). The lectures in this course treat of the origin, history, characteristics and adaptability of the various breeds of live stock. 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, horses, sheep and swine.

Text: Types and Breeds of Farm Animals, Plumb.

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. An important part of the practice consists of comparative judging similar to that of the show ring.

Prerequisite: Animal Husbandry 101, 102.

(Elective in I).

## 204. Judging Market and Breed Types of Cattle, Horses, Sheep and Swine. (2-4).

This course is offered to students in Veterinary Medicine. The work in both theory and practice is similar to that presented in courses 101, 102 and 202, but less extensive on account of the shorter time given to it.

Text: Judging Farm Animals, Plumb.

(Required in XI).

211, 212. Market Types. (0-4). Same as course 101, 102.

(Required in XV).

## 302. Animal Breeding. (2-2).

A study of the principles of animal improvement which form the basis of proper selection and mating for the production of pure bred live stock and market animals. The course includes a discussion of the subjects of reproduction, variation, heredity, selection, and the various methods of breeding, which include line breeding, inbreeding, crossing, grading, and other subjects connected with the breeding and improvement of farm animals.

Text: The Breeding of Animals, Mumford.

Practice consists largely of a study of the results obtained with the various breeds comprising the College herds. Training is given in the use of herd books, which involves the tabulation of pedigrees of representatives of the different breeds.

Prerequisite: Biology 301, Agronomy 305.

(Required in I, groups 5, 7; XI).

## 303. Animal Nutrition. (3-2).

This subject involves a study of the fundamental principles of live stock feeding, including the composition and digestibility of feeding stuffs, the disposition made of the different feed constituents by the animal organisms, and, finally, the methods of calculating rations for the various classes of farm animals, cattle, horses, sheep, and swine. Students are required to use a text-book and that is supplemented by lectures.

Text: Feeds and Feeding, Henry and Morrison. Lectures.

The practice consists chiefly in calculating rations and in working out problems relating to the economic side of live stock feeding.

Prerequisite: Chemistry 206.

(Required in I, group 5).

## 403. Advanced Judging. (0-6).

The lectures of this course treat further of the most approved types of pure-bred animals and of those used for the common market.

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 and the work of competitive judging among the students is given much prominence.

#### 405. Herd Book Study. (0-4).

The first part of the work consists of training in the intelligent use of herd books, involving practice in the tabulation and study of pedigrees of famous animals. This is followed by a study of the blood lines of the breed or breeds of live stock which the student intends to produce, in order to familiarize him with the best strains and individuals of the breed. Practice is also given in the necessary incidentals connected with the registration of animals, such as rules of entry, application for transfer, etc.

Prerequisite: Animal Husbandry 302.

#### 406. Beef Cattle Production. (3-2).

This course comprises a study of the raising of beef cattle as a business, including the most important features of production and marketing. The best methods of producing beef under both stock farming and ranching conditions, together with the details of management in each case, are fully discussed. Special attention is given to the management of pure-bred herds and the keeping of herd records.

The practice consists of the actual work of handling beef cattle, in developing them, and in preparing them for show and sale.

Prerequisite: Animal Husbandry 302, 303.

## 409. Animal Nutrition and Live Stock Feeding. (3-2).

This is a combined course, involving the principles of animal nutrition and a study of the feeding of all classes of farm animals, cattle, horses, sheep, and swine. The subject of animal nutrition, the composition of available feeding stuffs, and the calculating of rations are treated fully.

Text: Feeds and Feeding, Abridged, Henry and Morrison.

The practice consists of calculating rations; studying the results of feeding tests conducted by this and other Experiment Stations; and studying practical feeding operations.

(Required in I, group 4; XI).

## 410. Sheep and Wool Production. (3-2).

The raising of sheep is studied in full detail, both under farm and range conditions. Special attention is given to the management of pure bred flocks and the keeping of records. The production of wool is taken up, including improved methods of marketing, market grades, and factors determining the value of wool.

The practice consists of the actual handling of the flock, including feeding, shearing, docking, trimming feet, blocking for show, etc.

Prerequisite: Animal Husbandry 302, 303.

#### 411. Poultry Breeding and Management. (2-2).

This course involves a thorough study of the principles of poultry breeding, especially their application to the inheritance of egg production. A study of all poultry literature bearing on this subject occupies the first part of the course. Experiments dealing with certain phases of breeding are conducted during the course.

Prerequisite: Animal Husbandry 201.

Text: Poultry Breeding and Management, Dryden.

Course 411 is repeated in the second term.

#### 412. Swine Production. (3-2).

A detailed study is made of the problems that confront the breeder and feeder of pure-bred and market hogs. The following items are considered: Review of hog situation, adaptation of breeds, breeding, feeding, dry lot and forage crops, housing, fencing, equipment, fitting for show, showing, sanitation and disease control, marketing, killing and curing products, keeping records.

The actual work of handling is done in the practice.

Prerequisite: Animal Husbandry 302, 303.

#### 413. Horse Production. (3-2).

This course involves a more advanced study of market types and breeds of horses; a statistical study of the horse and mule industry; the breeding, feeding, and management of horses and mules. Special attention is given to the care of the stallion, brood mare, and foal. The work of horse registry associations and the influence of stallion laws are reviewed.

Practice consists of the actual handling of horses, including the training of colts, care and fitting of harness, fitting for sale and show, shipping, horseshoeing, and barn sanitation.

Prerequisite: Animal Husbandry 302, 303.

#### FOR GRADUATES.

#### 501, 502. Advanced Animal Nutrition. (3-4). Major.

This course involves a study of the more recent investigations in animal nutrition: methods of investigation as well as results are given consideration. Experiment Station literature, scientific journals, and advanced text-books on nutrition are reviewed by the student, who is required to attend class three hours weekly for lecture, recitation, or conference.

## 501a, 502a. Advanced Animal Nutrition. (2-4). A modification of course 501, 502.

#### FOR STUDENTS IN SHORT COURSES.

52. The Breeding of Live Stock and the Study of Pedigrees. (2-2).

The lectures in this course treat of the principles of breeding and the methods used in the practice of breeding horses, cattle, sheep and swine,—pure-bred animals, as well as those for the common market.

Text: The Breeding of Animals, Mumford.

The practice consists principally of the study of pedigrees. 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.

(Elective in C).

#### 55. Live Stock Feeding. (2-2).

This course embraces a study of the feeding of all classes of farm animals, cattle, horses, sheep and swine. The subject of animal nutrition, the composition of available feeding stuffs and the calculating of rations, are treated fully.

Text: Feeds and Feeding, Abridged, Henry and Morrison.

The practice consists largely of calculating rations for different classes of farm animals, special attention being given to the study of Texas grown feeding stuffs.

(Elective in C).

# 58. Live Stock Management. (2-2).

The raising of horses, cattle, sheep and swine is discussed in full detail, covering all features of management in production and marketing. Special attention is given to the management of pure-bred herds and flocks and to the keeping of private herds and record books.

The practice in live stock management consists of actual work in preparing different classes of stock for show and sale. The student is given instruction in trimming and shearing sheep, washing and curling the coats of cattle, polishing horns and hoofs, etc. The work on horses consists of grooming, fitting harness, and decorating manes and tails.

Prerequisite: Animal Husbandry 55.

(Elective in C).

#### DEPARTMENT OF ARCHITECTURE.

## PROFESSOR LAROCHE, PROFESSOR KELLOGG, ASSOCIATE PROFESSOR JUNE.

## 101. Architectural Drawing. (0-3).

A series of plates given primarily as exercises in draftsmanship, but also with the intention of introducing simple architectural details. The correlation of plan, elevation and section is thoroughly studied.

(Required in IX).

102. Elements. (0-6).

The study of architectural form through the classic orders of architecture, which are studied as examples of proportion rather than as definite mathematical systems. In this course an application of the theory of shades and shadows and perspective is made to the forms studied, and the subject of wash drawings introduced.

(Required in IX).

## 104. Shadows and Perspective. (2-0).

The principles of descriptive geometry which underlie the methods of casting shades and shadows are reviewed and firmly fixed in the student's mind. First, these are applied in finding shades and shadows on simple geometrical forms; then their application to forms of more difficult architectural character are taken up. The second half of the term is given to a study of the most approved methods of drawing in perspective projection. This course is co-ordinated with course 102.

(Required in IX).

#### 201, 202. Design (Elementary). (0-10).

A series of simple rendered problems involving the use of the orders and the study of composition pribrary research.

(Required in IX, group 1, both terms; group 2, first term).

#### 207, 208. History of Architecture. (2-0).

Egyptian, Western, Asiatic, Greek, Roman, Early Christian, Byzantine, Romanesque, and Gothic stples.

Written quizzes; tracings; research; lectures.

Text: History of Architecture, Kimball and Edgell.

(Required in IX, groups 1 and 2).

## 209. Principles of Design. (1-0).

Lectures on composition as applied to Architectural Design. The preliminary sketch; methods of study and presentation. Library assignments and reports.

(Required in IX, group 1).

210. Masonry and Carpentry. (2-0).

A brief study of the characteristics of the more important materials used in building construction; with special reference to methods and details of construction. Drawings and reports.

(Required in IX, groups 1 and 2).

217. Elements of Mechanics. (3-0).

The fundamental principles of mechanics are studied with particular emphasis placed on analytical statics. Numerous problems are solved to bring out the practical application of the theory taught.

Text as assigned.

Prerequisite: Mathematics 101, 102 and 103. (Required in IX, group 1).

#### 218. Mechanics of Materials. (3-0).

Strength of materials; direct stresses; flexural stresses; secondary stresses. Beams; columns; struts; riveted joints. The practical problems given are taken from actual constructional conditions, whenever possible.

Text as assigned.

Prerequisite: Architecture 217.

(Required in IX, group 1).

#### 301, 302. Design (Intermediate). (0-15).

A series of major and sketch problems in design, composition and planning throughout the year. The student is taught to think out his own solution to various given conditions. Under the instructor's criticisms his work is logically developed and attractively presented. Library research.

(Required in IX, group 1).

309. History of Architecture. (2-0).

Renaissance and modern architectural styles. Written quizzes; tracings; research; lectures. Text: History of Architecture, Kimball and Edgell. (Required in IX, groups 1 and 2).

311, 312. Design. (0-10, 0-12).

Similar to courses 301 and 302, but with application to buildings of a more utilitarian nature such as power plants, factories and store houses. (Required in IX, group 1).

316. Mechanical Equipment. (3-0).

Water supply, sanitation and plumbing. Heating and ventilation. Wiring and illumination. The fundamentals of these subjects are covered by means of lectures and assigned problems.

Text as assigned.

(Required in IX, groups 1 and 2).

317. Framed Construction. (2-3).

The design of wood and steel frames as used in building construction. Graphics and roof truss design are emphasized.

Text as assigned.

Prerequisite: Architecture 217 and 218.

(Required in IX, group 1).

## 318. Reinforced Concrete. (2-3).

Theory of reinforced concrete, and the design of columns, girders, beams and slabs.

Text as assigned.

Prerequisite: Architecture 217 and 218. (Required in IX, group 1).

401, 402. Design (Advanced). (0-18, 0-20).

This course is a continuation of the work in Agricultural Design with more advanced problems in planning, composition and presentation. (Required in IX, group 1).

406. Professional Practice. (2-0).

A series of lectures on the law of contracts; specifications; professional practice; ethics and professional and inter-professional relationships.

(Required in IX, groups 1 and 2).

## 407. History of Art. (2-0).

The history of painting, sculpture and architectural ornament. The aim of this course is to give an appreciation of the various schools of painting and sculpture, and an analysis of historic styles of decoration as applied to architecture.

(Required in IX, groups 1 and 2).

## 411, 412. Structural Design. (0-14).

A set of working structural drawings (with schedules and calculations) is made of a representative building designed by the student. Wood and steel framing and foundations being especially emphasized.

Text: Building Handbooks.

(Required in IX, group 2).

## 414. Modern Architecture. (1-0).

An analysis of modern buildings in respect to the influences of historic styles; also in respect to materials and methods of construction used. The requirements of special types of buildings such as schools, libraries, theaters, hospitals, etc., are studied. Lectures and reports.

(Required in IX, groups 1, 2).

#### BIOLOGY.

## DEPARTMENT OF BIOLOGY.

## PROFESSOR BALL, ASSOCIATE PROFESSORS CAHN, PRATT, ASSISTANT PROFESSORS HELFF, H. BURT, MR. ENGLISH.

#### BOTANY.

#### 101, 102. General Botany. (2-4).

The aim of this course is to provide the student who looks forward to entering some field of work in agriculture with an accurate and thorough knowledge of living plants. The point kept steadily in view is, therefore, physiologic rather than anatomic. The first term begins with an outline of the external and internal form and structure necessary to the more extended study of life processes of plants. In the second term, types of various subdivisions of the plant kingdom are used to illustrate the great fundamental principles of development and adaptation, and to serve as a foundation for later work in classification.

The plan of the laboratory work is based on the inductive principle; the student is trained to acquire facts of development, structure and function by direct observation. Each student is required to keep a notebook in which he records by drawings and notes the results of his work.

Text: College Botany, Martin.

Laboratory fee, 50 cents each term.

(Required in I, XI, XII, XIV).

#### 103, 104. General Botany. (2-4).

This course differs from the preceding in being more thorough and advanced.

Text: Botany of the Living Plant, Bower.

(Required in X).

Laboratory fee, \$1.00 each term.

#### 303, 304. Plant Physiology. (2-4).

An advanced course in physiology is here offered in which the functions of respiration, assimilation and nutrition receive especial attention. The course is designed for those who wish to pursue work of higher character in the field of general agricultural botany and at the same time to give, in the practical work, an introduction to the methods of research.

Text: Physiology of Plants, Green.

Laboratory Manual: Practical Physiology of Plants, Darwin and Acton.

Prerequisite: Biology 103, 104.

(Elective in X).

Laboratory fee, \$1.00 each term.

## 316. Plant Diseases. (2-4).

This course begins with a study of the biology and classification of fungi with special reference to pathogenic forms. Types of the more

important plant diseases occurring in Texas are selected for study and the student is trained to investigate and identify the cause of the trouble and is shown appropriate corrective measures. Plant diseases due to other causes receive attention within the limits of time and material.

In the laboratory, the student studies the form, structure, and biology of selected fungi and learns routine methods of cultivation and identification. Diseased plants are placed before him for individual study and he is instructed in the diagnosis of each disease.

Laboratory fee, \$1.00.

Text: Fungus Diseases of Plants, Duggar. Prerequisite: Biology 101, 102. (Elective in I).

403, 404. Plant Pathology. (2-4).

An introduction to systematic mycology in the first term, which is then followed by a study of the more important diseases of plants. Text: Fungi Which Cause Plant Diseases, Stevens.

(Elective in X).

Prerequisite: Biology 103, 104, 311, 312.

Laboratory fee, \$1.00 each term.

ZOOLOGY.

203, 204. General Zoology. (2-4).

A course dealing with the fundamental principles of classification, morphology and physiology of the various phyla of the animal kingdom, together with a discussion of life-histories and habits of representative species. In the laboratory, type specimens are dissected.

Text: College Zoology, Hegner.

(Elective in X).

Laboratory fee, \$1.00 each term.

207. General Zoology. (2-4).

The essential aims and plan outlined in the work in botany are continued in this course. Especial attention is given to forms of economic importance. Types of the various great groups of animals are considered as illustrating origin, development and distribution. Careful dissection and study of type forms, with notes and drawings are required in the laboratory work.

Laboratory fee, \$1.00.

Text: General Zoology, Pearse. (Required in I, XII).

208. General Zoology. (2-4). Same as course 207.

(Required in XI).

Laboratory fee, \$1.00.

#### BIOLOGY.

317, 318. Comparative Vertebrate Zoology. (2-4).

A detailed study of the anatomy of type chordates is undertaken from a comparative viewpoint. The lectures deal with the progressive development and evolution of the organs and organ systems, while in the laboratory the anatomy of the shark, fish, amphibian and mammal are carefully studied.

Text: Comparative Anatomy of Vertebrates, Kingsley.

Laboratory Manual for Comparative Vertebrate Anatomy, Hyman.

Prerequisites: Biology 203, 204.

(Elective in X).

Laboratory fee, \$1.00 each term.

419, 420. General Embryology. (2-4).

A course dealing with the development of the frog, pig and chick. In the laboratory a detailed study is made of both preserved and living material.

Text: Text-book of Embryology, Prentiss. Prerequisite: Biology 203, 204, 317, 318. (Elective in X). Laboratory fee, \$1.00 each term.

#### BACTERIOLOGY.

206. Introductory Bacteriology. (1-4).

This course is designed as an introduction to a more extended study of the nature and relations of bacteria. The laboratory work comprises, in part, the preparation of culture media; of pure cultures; staining and microscopic technique; methods of identification, etc.

Laboratory Manual: Laboratory Methods for Beginners in Bacteriology.

Laboratory fee, \$1.50.

Text: Bacteriology, Buchanan. Prerequisite: Biology 101, 102.

(Required in I, XI).

305. Soil Bacteriology. (1-4).

For students desiring more specialized and extended work than offered in 206.

Text: To be assigned.

Prerequisite: Biology 206.

(Elective in I).

Laboratory fee, \$1.50.

309, 310. General Bacteriology. (2-4).

In this course, the general nature and relations of bacteria, as exhibited in the study of selected types, will be considered.

In the laboratory, routine methods of isolation, preparation, and

study of pure cultures; technical microscopy of bacteria, etc., occupy the time allotted.

Text: General Bacteriology, Jordan. Laboratory Manual: A Manual of Bacteriology, Reed. Laboratory fee, \$1.00 each term.

(Elective in X).

## 409, 410. Advanced Bacteriology. (2-4).

This course is designed for students who elect special work in bacteriology and will be adapted to the needs of the groups making the selection.

Laboratory fee, \$1.00 each term. Prerequisite: Biology 103, 104; 309, 310. (Elective in X).

418. Water Bacteriology. (2-4).

The relations of bacteria and similar organisms to water, and water supplies, sewage and sewage disposal will be thoroughly considered.

The laboratory work consists of preparation of culture media; qualitative and quantitative analysis of water, sewage and sewage effluents. Text: To be selected.

Laboratory fee, \$1.50.

(Required in IV, group 2).

#### FOR GRADUATES.

501, 502. Vegetable Morphology. (3-4). Major.

The life histories of various types of plants beginning with the lower forms and extending throughout the Angiosperms are studied with special reference to structure and reproduction. Special attention is given to the origin and development of sex, the vascular system, the flower, etc., and to the alternation of generations.

The laboratory work includes among other things training in the preparation of permanent microscopic slides.

No text is used, but numerous references are given to publications available to the students.

Laboratory fee, \$5.00 each term.

501a, 502a. Vegetable Morphology. (2-4). Minor.

A modification of course 501, 502.

Laboratory fee, \$5.00 each term.

503, 504. Advanced Vertebrate Zoology. (3-4). Major.

An advanced course in zoology. The theory deals with the comparative anatomy of vertebrate types. The origin, development and evolution of the organs and organ systems, together with the anatomical evidence of evolution are emphasized. Laboratory work; detailed dissection of selected vertebrate types. Text: Comparative Anatomy of Vertebrates, Kingsley; and Textbook of Zoology, Parker and Haswell, Vol. 2. Laboratory fee, \$5.00 each term.

503a, 504a. Advanced Vertebrate Zoology. (2-4). Minor. A modification of course 503, 504. Text: Vertebrate Zoology, Newman. Laboratory fee, \$5.00 each term.

505, 506. Advanced Bacteriology. (3-4). Major.

Advanced methods of bacteriological analysis of water; of milk and foods; of sewage.

Texts: Monographs on the special topics. Laboratory fee, \$5.00 each term.

505a, 506a. Advanced Bacteriology. (2-4). Minor.
A modification of course 505, 506.
Laboratory fee, \$5.00 each term.

#### DEPARTMENT OF CHEMISTRY AND CHEMICAL ENGINEERING.

PROFESSOR HEDGES, PROFESSOR THORNTON, ASSOCIATE PROFESSORS BRAYTON, BURCHARD, STONE, FISH, ASSISTANT PROFESSOR MOORE, MR. SCHAER, MR. SPIETH, MR. KOENIG, MR. BRYANT, MR. B. C. JONES, MR. OLIPHINT, MR. HARTER.

#### 101, 102. General Inorganic Chemistry. (3-3).

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. An elementary course in physics should precede or accompany this course.

Text: General Chemistry, McPherson and Henderson.

General laboratory work, duplication of lecture experiments and simple tests of technical importance.

Laboratory fee, \$3.50 each term.

(Required in all four-year courses except X).

103, 104. Inorganic Chemistry. (3-4).

A modification of course 101, 102. Laboratory fee, \$3.50. (Required in X).

201, 202. Organic Chemistry. (3-4).
Same as course 301, 302.
Laboratory fee, \$6.00 each term.
(Elective in X).

#### 205. Qualitative Analysis. (2-8).

This course includes both the theory and practice of fundamental analytical operations and is designed to enable the student to make a rapid and accurate analysis of substances of average complexity, and to understand the steps by which his results are obtained. In the theory the principles upon which the laboratory work is based are explained and discussed, and the student's knowledge rigorously tested by oral and written exercises.

The laboratory work consists of a study of the properties and reactions of the more common basic and acidic radicals, their separation and identification from mixtures, the methods of getting solids into solution for analysis and the analysis of unknown substances. The number of substances analyzed varies with their nature and complexity.

Text: Qualitative Analysis, Steiglitz, Part I, and Noyes.

Laboratory fee, \$6.00.

Prerequisite: Chemistry 101, 102.

(Required in VIII).

## 206. Organic Chemistry. (3-2).

The subject is treated primarily as a pure science. An effort is made to select for illustrations such compounds as are of interest to the student of agriculture.

Text: Organic Chemistry, Moore.

In the laboratory a study is made of the properties and typical reactions of the compounds discussed in the lectures.

Laboratory fee, \$2.50.

Prerequisite: Chemistry 101, 102. (Required in I, VI, XI).

(Inequited III I, VI, MI).

#### 207. Quantitative Analysis. (2-3).

This course is designed to meet the requirements of mechanical and textile engineering students, and is preparatory to advanced courses in those departments. The laboratory exercises are explained in detail, general deductions drawn, and the student's knowledge of the subject tested by short oral and written exercises. A considerable portion of the class-room time is devoted to chemical calculations involved in the practice.

The laboratory work consists of a number of carefully selected experiments in quantitative analysis designed to typify operations of general application.

Laboratory fee, \$3.00.

Prerequisite: Chemistry 101, 102.

(Required in III, VI).

208. Technical Analysis. (1-4).

This course is designed to give the student an insight into the methods employed in the analysis of materials connected with his profession and the application of the results obtained to practical problems. The work in the laboratory is discussed and explained, and its application to engineering problems emphasized.

In the laboratory fuels, steels, cements, waters for industrial purposes, and industrial products commonly met with, are analyzed by rapid technical methods.

Laboratory fee, \$3.00.

Prerequisite: Chemistry 207.

(Required in III, VI).

## 301, 302. Organic Chemistry. (3-4).

The lectures and recitations serve as an introduction to the chemistry of the compounds of carbon. A study is made of the general principles, and attention is called to their application to various industrial processes.

The laboratory work serves as a basis for the course. The student here familiarizes himself with the reactions, properties and relations of typical organic compounds.

Laboratory fee, \$6.00 each term. Text: Organic Chemistry, Norris. Prerequisite: Chemistry 101, 102. (Required in VIII).

305. Organic Chemistry. (3-2).

Same as 206.

Laboratory fee, \$2.50.

(Required in VI).

#### 308. Dyeing. (1-4).

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

Most of the principles discussed in the theory are tested in the laboratory, with especial attention to the production of dyeing to meet particular commercial requirements.

Laboratory fee, \$2.00.

Prerequisite: Chemistry 305. (Required in VI).

## 309. Agricultural Chemistry. (3-3).

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, it helps to understand the chemical terms used in Experi-

ment Station literature. The chemistry of plant substances, soils, irrigation water, fertilizers, insecticides, and fungicides is studied.

The laboratory work serves to familiarize the student with the composition and behavior in the laboratory of many materials important in agriculture. It consists of the chemical analysis of feeds, soils, fertilizers, insecticides and fungicides.

Text: Chemistry of Agriculture, Stoddard.

Laboratory Manual of Agricultural Chemistry, Hedges and Bryant. Laboratory fee, \$3.00. Prerequisite: Chemistry 206.

(Required in I, XII).

313. Qualitative Analysis. (2-8).
Same as course 205.
Laboratory. fee, \$6.00.
(Elective in X).

## 314. Advanced Agricultural Chemistry. (2-6).

Studies are made 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.

The student is required 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.

Laboratory fee, \$4.00.

Prerequisite: Chemistry 309.

(Required in I, group 1).

#### 410. Water Treatment. (1-3).

This course is designed to impart a knowledge of the methods employed in the analysis of waters for industrial and potable purposes, of the interpretation of the results of such analyses, and of the methods employed in water purification. Attention is also directed to the nature and analysis of sewage, and its purification.

Laboratory fee, \$3.00.

Prerequisite: Chemistry 307. (Elective in IV, group 2).

418. Technical Analysis. (1-4).

Same as course 208. Laboratory fee, \$3.00. (Required in I, group 3).

#### 431. Advanced Organic Chemistry. (2-4).

This course is a continuation of Chemistry 301 and 302 in the study of more complex compounds, especially of those related to the industries.

Laboratory fee, \$5.00.

The laboratory experiments are chosen to correlate with the theory work.

(Elective).

438. Seminar. (1-0). (Required in VIII).

#### FOR GRADUATES.

501, 502. Advanced Agricultural Chemistry. (3-4). Major. Same as course 421, with more advanced work. Laboratory fee, \$5.00 each term.

501a, 502a. Advanced Agricultural Chemistry. (2-4). Minor. A modification of course 501, 502. Laboratory fee, \$5.00 each term.

#### FOR STUDENTS IN SHORT COURSES.

#### 51. Practical Chemistry. (3-2).

This course is intended to familiarize the student with chemistry and its relation to every-day affairs. The elementary principles of inorganic chemistry are first considered and then topics of practical interest are taken up. Some of the topics studied are: Fuels (solid, liquid, and gaseous), illuminants, air and ventilation, water purification and softening, extraction and properties of the non-ferrous metals, alloys, iron and steel, corrosion of metals, lime, cement, brick and pottery, glass, protective coatings, some carbon compounds, foods, etc.

The laboratory work comprises the preparation or testing of metals discussed in the class room.

Laboratory fee, \$2.00.

Text: Chemistry of Common Things, Brownlee, and other texts. (Required in H).

54. Dyeing. (1-4).

Similar to course 308 but more elementary. Laboratory fee, \$2.50. Prerequisite: Chemistry 51. (Required in H).

## CHEMICAL ENGINEERING.

The foundation for the work in chemical engineering is laid in the courses in chemistry already described. Chemistry and chemical engineering cover such a broad field that in the senior year students are advised to specialize in some branch of technical analysis such as its application to the cotton seed oil industry, petroleum technology, problems of sanitation, or the chemical control of a cement plant. All the

work is supplemented by laboratory work. The chemical industries most highly developed in this State are inspected from time to time.

201. Industrial Chemistry. (3-0).

Same as Chemical Engineering 307. (Required in XIII).

## 202. Elementary Quantitative Analysis. (2-8).

This course serves as an introduction to the methods of exact analysis, and is regarded as preliminary training for the more advanced courses. In the class room the practice and theory of the laboratory exercises are dealt with by lectures and recitations. Special attention is given to stoichiometry.

The laboratory work consists of a number of carefully selected experiments in quantitative analysis designed to typify operations of general application. The work is first gravimetric, then volumetric. In the early periods compounds of known composition and purity are analyzed, but later substances of industrial significance, whose percentage composition is known only to the instructor, are undertaken. Near the close of the term an analysis is made of a carbonate or silicate rock for the commonly determined constituents.

Texts: Notes on Quantitative Chemical Analysis, Foulk; Calculations of Analytical Chemistry, Miller.

Laboratory fee, \$6.00.

Prerequisite: Chemistry 205. (Required in VIII).

208. Metallurgy. (2-0).

Same as Chemical Engineering 408. (Required in XIII).

301, 302. Technical Analysis. (2-9, 2-6).

The theory consists of lectures, recitations and conferences dealing with technical methods of analysis, both rapid and exact, effort being made to thoroughly familiarize the student with the principles involved. Before beginning an analysis the student is required to consult current literature and standard books of reference and present a written outline for criticism and suggestion.

The laboratory work comprises the analysis of limestone, fuels, lubricating oils, gas, boiler water, iron and steel, alloys, ores, paint, soap, sugar, asphalt and other materials of engineering and industrial importance.

Texts: Quantitative Analysis, Mahan; Engineering Chemistry, Stillman.

Laboratory fee, \$6.00 each term.

Prerequisite: Chemical Engineering 202.

(Required in VIII).

303. Physical Chemistry. (3-4).
Same as Chemical Engineering 411.
Laboratory fee, \$5.00.
(Required in I, group 1).

307. Industrial Chemistry. (3-0).

This is an introductory course, covering the principal applications of chemical process to commercial products, mostly organic in nature, such as gas manufacture, petroleum products, soaps, the starch and sugar industries, and the manufacture of paper, leather, and explosives. The manufacture of fertilizers, cement and ceramics is also considered.

Text: Industrial Chemistry, Benson. Prerequisite: Chemistry 101, 102. (Required in III).

312. Elementary Quantitative Analysis. (2-8).
Same as Chemical Engineering 202.
Laboratory fee, \$6.00.
(Elective in X).

#### 408. Metallurgy of Iron and Steel. (2-0).

In this course the metallurgy of iron and the manufacture of steel are considered in detail, especial attention being given to 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.

Text: The Metallurgy of Iron and Steel, Stoughton. Prerequisite: Chemistry 101, 102. (Required in III).

#### 411. Physical Chemistry. (3-4).

This course presents 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 the consideration of the best research of today. Most of the theoretical conclusions deduced in the class room are confirmed in the laboratory. Lectures and recitations.

The laboratory work consists of the calibration of apparatus, determination of molecular weights, heats, of reaction, rate of reaction, law of mass action and other related topics. During the second term most of the experiments deal with electrical phenomena. A few experiments

illustrating electro-chemical processes of commercial importance are performed.

Laboratory fee, \$5.00.

Prerequisite: Chemistry 301, 302.

(Required in I, group 1; VIII; elective in X).

## 414. Sanitary Chemistry. (3-4).

The course deals with the sanitary examination of food, milk, and milk products, and the sanitary analysis of water, including water treatment methods. Methods of purification of water, as the use of sand filters, coagulants, and algicides, are explained. Sources of pollution of water and milk supplies and their relation to public health are discussed. Problems common to the sanitary chemist and engineer are also considered.

Laboratory fee, \$5.00.

Prerequisite: Chemistry 206 or 301, 302. (Required in VIII; elective in X).

#### 415. Industrial Chemistry. (3-4).

The theory consists of lectures and conferences dealing with technical processes and their application to the industries and the construction and operation of industrial chemical plants. As the work of the student diverges individual conferences are arranged with each during which his particular problems are discussed. Reference is made to the library and current technical literature.

Laboratory fee, \$6.00.

Prerequisite: Chemical Engineering 302. (Required in VIII).

#### 416. Chemical Technology. (3-8).

This course deals with the application of chemical theories and laws to industrial processes, organic chemical processes being emphasized, especially those dealing with the refining of petroleum, cottonseed oil, and sugar.

Text: Industrial Chemistry, Thorp.

Laboratory fee, \$5.00.

Prerequisite: Chemical Engineering 413.

(Required in VIII).

#### 452. Chemical Summary. (3-0).

This course is designed to summarize all the work given in the course in Chemical Engineering and to co-ordinate the different subjects throughout the four years' work. Work is given by means of lectures, recitations and written tests.

## CIVIL ENGINEERING.

## DEPARTMENT OF CIVIL ENGINEERING.

## PROFESSOR NAGLE, PROFESSORS RICHEY, EMMONS, MARBURGER, ASSO-CIATE PROFESSORS BIRD, MUNSON; ASSISTANT PROFESSOR MCNEW, MR. BRADEN, MR. DOREMUS.

#### 201. Plane Surveying. (3-5).

Chaining; the adjustment, use and care of compass, transit, level, plane table and hand instruments; measurement of angles; land surveys and computations; stadia, topographic, city and general surveying; leveling; observations for true meridian and latitude; plotting results of surveys.

Stress is laid upon the practical side of surveying, the importance of care and precision both in the field and the class room, and the necessity for understanding the principles underlying each step of the work.

Additional problems under the same working conditions met by the practicing surveyor are assigned in course 300 during the summer.

Texts: Principles and Practice of Surveying, Vols. 1 and 2, Breed and Hosmer; Manual of Surveying, R. E. Davis.

Laboratory fee, 75 cents.

Prerequisite: Mathematics 103.

(Required in IV).

#### 202. Railroad Engineering. (2-3).

The theory and practice of simple and compound curves are taught in both class room and field and such problems are given as will illustrate the application of the theory to actual working conditions.

Text: Field Manual for Railroad Engineers, Nagle.

Problems in simple and compound curves are assigned, the notes calculated and the curves "run out" in the field.

Prerequisite: Civil Engineering 201.

Laboratory fee, 75 cents.

(Required in IV).

#### 204. Analytical Mechanics. (4-0).

A study of the fundamental principles of mechanics, with numerous problems showing their application in engineering. Both kinetics and statics are considered, but especial emphasis is put upon the applications of the principles of static equilibrium.

Text: Applied Mechanics, Poorman.

Prerequisite: Mathematics 203; to be accompanied by Mathematics 204.

(Required in IV, IX, group 2; XV).

## 206. Plane Surveying. (1-3).

A modification of course 201.

After covering the fundamental principles of surveying, special atten-

tion is given to the use of the transit and level in making layouts of building and machinery foundations, lining shafting, running profile surveys for pipe lines, etc.

Text: Surveying Manual, Pence and Ketchum.

Laboratory fee, 50 cents.

Prerequisite: Mathematics 103.

(Required in V, VI, XV).

#### 300. Field Practice. Summer Following Sophomore Year; 3 Weeks.

This course includes the care, management and use of surveying instruments in making land, topographic and triangulation surveys, particular attention being paid to stadia and plane table methods.

Practical working conditions are approximated by requiring a full working day in the solutions of special problems in the several different surveys. Areas are computed, topography platted and maps made. The true meridian is determined by observations on the sun and Polaris. Each instrument man is required to become reasonably proficient in the use of the surveyor's compass, transit, level and plane table.

Reference text: Principles and Practices of Surveying, Vols. 1 and 2, Breed and Hosmer, together with additional notes by the instructors.

Laboratory fee, \$1.00.

(Required in IV, XV).

#### 303. Railroad Engineering. (2-3).

A continuation of course 202, covering transition curves, frogs and switches, turnouts, vertical curves, earthwork, overhaul, estimates, etc.

The theory is demonstrated in the field by working out assigned problems and actually doing the field work necessary. Instruction in platting progress profiles, preparing preliminary, monthly, and final estimates, including the determination of overhaul, is given.

This practice, as well as that of course 202, is preliminary to more elaborate field work required in course 400, and railroad drafting in course 401.

Text: Field Manual for Railroad Engineers, Nagle. Laboratory fee, 75 cents. Prerequisite: Civil Engineering 202.

(Required in IV).

#### 304. Railroad Construction. (2-0).

Railroad surveys; materials; structures; equipment; costs; economics. Text: Design of Railway Location, Williams. Prerequisite: Civil Engineering 303. (Required in IV).

305. Mechanics of Materials. (3-2).

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

Practice consists of determination of the strength, ductility, modulus of elasticity, and other properties of engineering materials. Various tests of timber, steel, cast iron, cement, etc., are made by the student and reports submitted showing results. In these reports considerable attention is given to the presentation of results in clear and condensed form by means of curves and tables.

Text: Strength of Materials, Boyd.

Laboratory fee, \$1.00.

Prerequisite: Mathematics 204; Civil Engineering 204 or equivalent, or registration in equivalent course.

(Required in III).

## 306. Masonry. (3-0).

The fundamental principles involved in the design and construction of masonry structures in general are treated in this course. Reinforced concrete, however, receives further and more detailed consideration in courses 413 and 414.

Text: Masonry Structures, Spalding.

Prerequisite: Civil Engineering 305 or 307. (Required in IV).

#### 307. Strength of Materials. (4-2).

Same as course 305, except that the strength and mechanics of materials used in engineering are studied in greater detail.

Laboratory fee, \$1.00.

(Required in IV, IX, group 2).

#### 311. Hydraulics. (3-2).

The laws governing the action of water at rest and in motion, as related to engineering problems, the flow of water in pressure mains, sewers, aqueducts, open channels, and in rivers; measurement of the flow of water by nozzles, orifices, weirs and meters; estimates for water supply and water power; hydrography; theory and efficiency of water wheels, motors, turbines, rams and pumps.

The practice consists of calibration of nozzles, orifices, water meters, weirs, pressure gauges; efficiency tests on impulse motors, hydraulic rams, and one, two and three-stage centrifugal pumps.

Text: Hydraulics, Daugherty.

Prerequisite: Mathematics 203 or 205. (Required in IV; elective in VIII).

#### ·319. Farm Surveying. (2-3).

Chain surveying; adjustments and use of instruments in leveling, compass and transit surveying, with special reference to application on farms. The necessary trigonometric formulas are taught in connection with this course.

Text: Surveying Manual, Pence and Ketchum. Laboratory fee, 50 cents. (Required in I, groups 4, 10; elective in I, group 9).

Topographic Drawing. (0-2). 320.

This is a course of instruction and practice in the essentials of topographic drawing, and includes a study of the forms and practice in the execution of the common conventional signs; study and practice in the methods of showing configurations of the earth's surface by means of contours; study of the forms and practice in the execution of the conventional alphabets used in lettering on topographic maps; and practice in the execution of conventional signs and lettering in combination; practice in map drawing.

Text: Topographic Drawing, Stuart. (Required in IV).

326. Plane Surveying. (1-3).

Same as course 206. Laboratory fee, 50 cents. (Required in IX, group 2; elective in VIII).

327. Mechanics of Materials. (3-0).

Same as course 305, except that no practice is given during the first term, the practice being covered by course 328.

(Required in V, XV).

328. Mechanics of Materials Laboratory. (0-2). Same as the practice given in course 305. Laboratory fee, \$1.00. (Required in V, XV).

330. Framed Structures. (2-3).

This is a combination of courses 302 and 308 heretofore offered in the forty-fourth and preceding catalogues. The theory covers applications of the laws of equilibrium in the determination of stresses in roof trusses and bridge trusses; abbreviated methods for bridge trusses, including the use of index stresses.

The practice covers the elements of graphic statics; use of the force and equilibrium polygons in determining resultants, reactions, centers of gravity and bending moments; determination of stresses in bridge and roof trusses by the construction of stress diagrams.

Modern Framed Structures, Part I, Johnson, Bryan and Text: Turneaure.

Prerequisites: Mathematics 204; Civil Engineering 204, 307. (Required in IV, IX, group 2).

## CIVIL ENGINEERING.

400. Field Practice. Summer Following Junior Year; 3 Weeks.

A practice course in which effort is made to approximate actual working conditions of preliminary and location surveys.

The class is required to complete exercises in railroad surveying; road and street location; mapping. Each student is drilled in the use of the transit and level in running preliminary and location lines; with the surveyor's compass in tying in land lines; with the hand level, pocket compass and pocket sextant in taking topography. Instruction is given in cross sectioning, staking out bridge openings, running drainage areas and determining the size of drainage openings. The care and adjustment of instruments are reviewed and observations on the sun and Polaris for determining the true meridian and latitude are repeated. Additional problems of benefit to the student will be assigned when time permits.

Reference texts: Field Manual for Railroad Engineers, Nagle; Notes on Railroad Summer Practice, Love.

Laboratory fee, \$1.50.

(Required in IV).

#### 401. Railroad and Highway Drafting. (0-4).

Office methods of working up the notes of reconnaissance, preliminary and location surveys and maintenance surveys. This includes the completion of a map, a profile and estimate of the line located in course 400.

(Required in IV, groups 1, 2).

## 403. Roofs and Bridges. (4-6).

Continuation of work begun in course 330, and including influence lines, determination of stresses due to lateral loads. Study of the design of simple plate girder and truss spans. The student makes designs and general drawings and has some practice also in detailing.

Text: Modern Framed Structures, Parts I and III, Johnson, Bryan and Turneaure.

Prerequisite: Civil Engineering 330.

(Required in IV, group 1).

#### 404. Bridge Design. (0-6).

A continuation of the practice in course 403.

Prerequisite: Civil Engineering 403.

(Required in IV, group 1).

#### 406. Materials of Construction. (0-3).

A laboratory study of the suitability of various materials of engineering, including brick, stone, sand, gravel, cement, mortars and concrete.

Laboratory fee, \$2.00.

Prerequisite: Civil Engineering 305.

(Required in IV, group 1; IX, group 2).

# 407. Roads and Pavements. (3-0).

This course is provided for students in general Civil Engineering, and covers a brief study of country roads and city pavements. Highway location, design, construction and maintenance are studied; also road laws, finances, organization and supervision.

The text is supplemented by lectures, the use of bulletins, road machinery, models and samples of materials.

Text: Elements of Highway Engineering, Blanchard.

Prerequisite: Civil Engineering 201.

(Required in IV, group 1; I, group 3; XV).

# 410. Contracts and Specifications. (2-0).

A brief study of the law of contracts as applied to engineering operations; the relation of the engineer to the owner and to the contractor; the necessity for, and preparation of, engineering specifications and the accompanying documents; general and specific clauses in specifications; illustrative examples.

Texts: Elements of Specification Writing, Kirby; Contracts in Engineering, Tucker.

(Required in IV, V, XV).

## 411. Hydraulics. (3-0).

Same as course 311, except that no practice is given. (Required in III; elective in V).

# 413. Elements of Reinforced Concrete. (2-0).

The theories of stress distribution, and various systems of reinforcement employed in the construction of beams and columns are discussed, and illustrative examples studied. Determination of stresses and elementary design, based upon the assumptions commonly made, are taken up by means of practical problems solved by the student.

Text: Reinforced Concrete Construction, Vol. I, Hool.

Prerequisite: Civil Engineering 204, 305.

(Required in IV, IX, group 2).

## 414. Reinforced Concrete Design. (2-3).

Study of the design of various types of reinforced concrete structures, such as buildings, bridges, retaining walls, culverts, etc. Practice is had in the making of simple designs and working drawings.

Text: Reinforced Concrete Construction, Vol. II, Hool.

Prerequisite: Civil Engineering 413.

(Required in IV, group 1; IX, group 2).

## 415. Highway Construction and Maintenance. (4-0).

This course covers the location, design, construction and maintenance of all types of roads and pavements. The text is supplemented by frequent reference to bulletins, standard specifications, trade catalogues, proceedings of engineering societies, and current engineering periodicals.

Text: The Construction of Roads and Pavements, Agg.

Prerequisite: Civil Engineering 201.

(Required in IV, group 2).

### 417, 418. Highway Materials. (1-3).

The various materials used in the construction and maintenance of roads and pavements are studied with special reference to their suitability for the various types of construction. The production, refining and testing of bituminous materials and control of the manufacture of the various pavement mixtures are studied in detail. The laboratory work consists of standard tests of bituminous and non-bituminous materials.

Text: Laboratory Manual of Bituminous Materials, Hubbard, and bulletins.

Laboratory fee, \$2.00, first term; \$3.00, second term. Prerequisite: Senior classification in engineering.

(Required in IV, group 2).

## 423. Bridge Design. (2-3).

A study of the stresses in highway bridges and the making of simple designs.

Text: Design of Highway Bridges, Ketchum. Prerequisite: Civil Engineering 330. (Required in IV, group 2).

#### 426. Highway Bridges and Culverts. (1-5).

This course includes lectures and problems in the design and construction of highway bridges and culverts. The types of bridges best suited to various traffic conditions are studied, and such questions as the size of waterways, width of road, etc., are taken up in detail.

Text: Design of Highway Bridges, Ketchum.

Prerequisite: Civil Engineering 413, 423. (Required in IV, group 2).

#### 429. Highway Laws and Economics. (3-0).

This course includes a study of the Texas highway laws with a comparison of the laws of other States. Problems of economical selection and financial justification for construction are also studied along with the various methods of financing.

Text: Engineering Economics, Fish.

Prerequisite: Senior or junior classification, engineering courses. (Elective in IV, group 2).

#### 434. Irrigation and Drainage. (2-0).

Determination of the quantity of water available; collection and stor-

age works; design, location and construction of distributive systems; economic use and duty of water in irrigation; water rights.

Text: Irrigation Engineering, Wilson and Davis.

Prerequisite: Civil Engineering 311.

(Required in IV, group 1).

#### 440. Sanitary Engineering. (4-2).

A study of the collection, storage and distribution of water for municipal use; the necessity for and methods of water purification; design and construction of waterworks systems. A study of questions relating to quantity of sewage; design, construction and maintenance of sewerage systems; sewage treatment and disposal.

Text: To be selected.

Prerequisite: Civil Engineering 311. (Required in IV).

441. Hydraulics. (3-2).

Same as course 311. (Required in XV).

## DAIRY HUSBANDRY.

PROFESSOR POU, ASSOCIATE PROFESSORS CLUTTER, DARNELL.

101. Judging Dairy Cattle. (0-2).

A study of dairy type, and the correlation between type and milk production. First, thorough training is given in the scoring of dairy cattle, and this is followed by comparative judging of typical individuals of the major breeds of dairy cattle.

(Required in I, XII).

102. Dairying. (2-2).

Same as course 202.

(Required in XII):

## 202. Dairying. (2-2).

The secretion of milk and the composition of milk and its products; the use and application of the lactometer in the determination of the total solids and adulteration of milk; the various methods of cream raising and separation; and the principles of making butter and ice cream on the farm and in the home.

Laboratory fee, 50 cents.

Text: Milk and Its Products, Wing. (Required in I, XII).

#### 301. Market Milk and Milk Inspection. (2-2).

A study of the food value of milk; the production, handling and sale of market milk; advanced registry testing; city milk inspection. Text: The City Milk Supply, Parker. References assigned. Prerequisite: Dairy Husbandry 202. (Required in I, group 7, and in XI).

304. Advanced Dairy Cattle Judging. (0-2).

A further study of comparative judging of dairy cattle. References assigned.

Prerequisite: Dairy Husbandry 101.

(Elective in I, group 7).

306. Butter Making and Factory Management. (2-2).

Types of creameries; raw product received; grading; pasteurization; use of commercial starters; ripening; churning; salting and working butter; explanation of various physical phenomena in making, packing and storing butter. Creamery location and plans; business accounting and management in various types of creameries. The making of commercial buttermilk and soft cheese.

Text: The Butter Industry, Hunziker.

Prerequisite: Dairy Husbandry 202 and 301.

(Required in I, group 7).

#### 404. Seminar. (2-0).

A study along selected lines of research, with a review and study of recent Experiment Station work.

(Elective in I, group 7).

#### 406. Dairy Cattle Feeding and Management. (3-2).

This course covers the field of dairying in its relation to the producer. The breeding, feeding, care and management of dairy cattle is given special consideration.

Texts: Dairy Cattle Feeding and Management, Larson and Putney; Feeds and Feeding, Henry and Morrison.

Prerequisite: Dairy Husbandry 408; Animal Husbandry 401.

(Required in I, group 7).

# 407. Ice Cream Making and Refrigeration. (2-2).

Mixing and freezing of ice cream; sherberts and other frozen products, and the physical principles involved; type of freezers; flavoring materials; fillers; binders; ice cream standards; the theory and practice of artificial refrigeration and its use in the ice cream plant.

Text: The Book of Ice Cream, Fisk.

Prerequisite: Dairy Husbandry 202 and 301.

(Elective in I, group 7).

408. Herd Book Study. (0-4).

The tracing and study of the pedigrees of the leading strains and families of dairy cattle, with special reference to official records.

Prerequisites: Dairy Husbandry 202; Animal Husbandry 302. (Elective in I, group 7).

FOR GRADUATES.

501, 502. Advanced Dairy Husbandry. (3-4). Major.

This course involves a study of the more recent investigations in dairy cattle feeding, breeding, management, manufacturing and marketing dairy products; methods of investigation as well as results are given consideration; Experiment Station literature; scientific journals and advanced text-books on these subjects are reviewed by the students, who are required to attend classes three hours weekly for lecture, recitations or conference. A thesis based upon original investigation is required as part of this course.

501a, 502a. Advanced Dairy Husbandry. (2-4). Minor. A modification of course 501 and 502.

FOR STUDENTS IN SHORT COURSES.

23. Farm Dairying. (3-2).

An elementary course in selecting and handling dairy cattle; rearing dairy calves; methods of milking; testing milk; care and handling milk and dairy products on the farm.

Text: Farm Dairying, C. Larsen. (Required in C).

55. Dairy Cattle Feeding and Management, (2-2).

The feeding, breeding and management of dairy cattle from the standpoint of the practical dairyman.

Text: Dairy Cattle and Milk Production, Eckles; supplemented by lectures.

Prerequisite: Dairy Husbandry 23. (Elective in C).

## DEPARTMENT OF DRAWING.

PROFESSOR A. MITCHELL, PROFESSOR GEIST, ASSISTANT PROFESSORS MILNER, R. S. FOURAKER, MR. MULLINS, MR. BAKER.

101. Mechanical Drawing. (0-3).

Care and use of drawing instruments, simple exercises in the use of drawing instruments, instrumental and free-hand lettering, geometrical

#### DRAWING.

constructions, construction of plane curves, orthographic and axonometric projections.

Text: Mechanical Drawing, Giesecke and Mitchell.

(Required in all four-year engineering courses and in IX and XIII).

## 102. Mechanical Drawing. (0-3).

Problems in descriptive geometry involving points, lines, planes, tangency, intersections of planes and solids, intersections of solids, development of surfaces, shades and shadows, linear perspective. This course is parallel to and is an application of courses 103 and 104.

Text: Instrumental Exercises, Descriptive Geometry, Mitchell. Prerequisite: Drawing 103.

(Required in all four-year engineering courses and in XIII).

# 103, 104. Descriptive Geometry. (2-0).

Class-room exercises, quizzes and lectures on general and special problems relating to points, lines, planes and solids; problems in shades and shadows and in perspective. Special attention is paid to the representation of objects by orthographic projection in the first and third angles.

Text: Descriptive Geometry, Giesecke and Mitchell.

(Course 103 is required in all four-year engineering courses and in IX and XIII. Course 104 is required in all four-year engineering courses and in XIII).

# 105, 106. Free-hand Drawing. (0-1).

Drawing from geometrical solids, common objects, plaster casts, still life, to study form, proportion, light and shade; in the second term special attention is given to measuring, dimensioning and describing machines, machine parts, engineering structures and details.

The course is varied to meet the practical needs of students in the different engineering departments.

(Required in all four-year engineering courses and in XIII).

# 109, 110. Free-hand Drawing. (0-3).

Same as courses 105 and 106 for the first term. In the second term, adaptation of light and shade in architectural drawing.

(Required in IX).

# 119. Mechanical Drawing. (0-2).

Similar to course 101.

Text: Mechanical Drawing, Giesecke and Mitchell. (Required in X).

120. Free-hand Drawing. (0-2). Similar to courses 105 and 106. (Required in X).

122. Mechanical Drawing. (0-3).

Same as course 101. (Required in XIV).

201, 202. Mechanical Drawing. (0-3).

Standard conventional section lining, drawing of standard bolts, nuts, rivets and threads; helixes, elementary parts of machines and engineering structures; details and assemblages; Patent Office drawing, tracing, blue printing. The student is required to carefully sketch and measure his model in the drawing room, shop or field. From his dimensioned sketch he makes, on detail paper, traces and blue prints his working drawing.

The course is varied to meet the practical needs of students in the different engineering departments.

Text: Mechanical Drawing, Giesecke and Mitchell. Reference text: Engineering Drawing, French. Prerequisite: Drawing 101. (Required in VIII, XIII).

201a, 202a. Mechanical Drawing. (0-2).

A modification of courses 201 and 202. Text: Mechanical Drawing, Giesecke and Mitchell.

Reference text: Engineering Drawing, French. Prerequisite: Drawing 101. (Required in IV, V, VI).

203. Color Harmony and Design. (0-3).

Exercises in the harmony of color, including the use of water and distemper colors for the purpose of training the student in the use of correct color combinations. Decorative and constructive design.

(Required in XIII).

209. Free-hand Drawing (Advanced). (0-4).

Line charcoal drawings of full-length antique and modern subjects; shaded charcoal drawings from casts of more complex architectural ornament.

Prerequisite: Drawing 109 and 110). (Required in IX, groups 1, 2).

210. Free-hand Drawing (Advanced). (0-4).

A continuation of course 209.

Shaded charcoal drawings of full-length antique and modern subjects. Prerequisite: Drawing 209.

(Required in IX, groups 1, 2).

#### DRAWING.

309, 310. Free-hand Drawing. (0-4).
Pen and ink, pencil and water color rendering.
Prerequisite: Drawing 210.
(Required in IX, groups 1, 2).

315. Mechanical Drawing. (0-3).

Exercises in the use of drawing instruments, instrumental and freehand lettering, geometrical constructions, orthographic and isometric projections.

Text: Mechanical Drawing, Giesecke and Mitchell. (Required in I, group 10).

316. Free-hand Drawing. (0-3).

Elementary principles of free-hand drawing during first part of the term, followed by water color rendering of foliage and general entourage.

(Required in I, group 10).

## 317. Mechanical Drawing. (0-3).

Elementary architectural drawing, including plans, elevations, sections, window and door details, structural steel construction, masonry construction, carpentry, etc.

(Required in XIII).

## 318. Machine Drawing. (0-3).

Correct representation of objects; approved methods of dimensioning drawings; sketching and measuring machine parts; standard conventions; cycloidal and helical curves; screw heads, spur wheels, bevel and worm gears; cam construction.

Text: To be announced.

Prerequisite: Drawing 201 or 101. (Required in XIII).

319. Mechanical Drawing. (0-2).
Similar to course 318.
Prerequisite: Drawing 201 or 101.
(Elective in X).

Similar to course 310.
Prerequisite to Drawing 120.
(Elective in X).

.409, 410. Free-hand Drawing (Life Class). (0-4).

Architectural rendering; black-and-white and color studies of the undraped figure; sketches of the draped figure in various media.

Prerequisite: Drawing 309 and 310.

(Required in IX, group 1).

#### FOR STUDENTS IN SHORT COURSES.

11, 12. Mechanical Drawing. (0-3).

Proper care and correct use of drawing instruments, simple exercises in the use of drawing instruments, lettering, geometrical constructions, standard conventional signs, sketching, measuring and dimensioning elementary parts of machines.

This course is varied to meet the practical needs of students in the different engineering departments.

Text: Mechanical Drawing, Giesecke and Mitchell. (Required in H, N).

 Free-hand Drawing. (0-1).
 Similar to course 105. (Required in H, N).

14. Free-hand Drawing. (0-1).
Similar to course 106.
(Required in H, N).

15, 16. Mechanical Drawing. (0-2).
A modification of courses 11 and 12.
Text: Mechanical Drawing, Giesecke and Mitchell. (Required in M).

61. Mechanical. (0-3).
Same as course 11.
(Elective in C).

#### DEPARTMENT OF ECONOMICS

PROFESSOR CLARK.

201. Elementary Economics. (3-0).

This course is designed only to lay the basis for further work in economic theory. No effort will be made to cover the whole field of economics as is done in courses 305, 306, and 403.

Text: To be selected.

(Required in XIV).

#### 202. Business Law. (2-0).

This course is especially fitted for those who plan to enter general business practice, but is important in all spheres of American life. Such subjects as the following are studied: the nature and scope of law, contracts, sales, agency, negotiable instruments, employment, partnership, personal property, real property, wills and inheritances, surety, bankruptcy, etc.

Text: The Law in Business Problems, Schaub and Isaacs. (Required in XIV).

305. Fundamental Principles. (3-0).

This course consists of the theory of economic activities concerning production, distribution and consumption; and the practical problems of credit, banking, foreign exchange, monetary systems, co-operation, tariff, transportation, trusts, corporations, finance and taxation. The assignments in the text are supplemented by expositions and explanations by the instructor, and by reports by the students.

Text: Principles of Political Economy, Seager.

(Required in X, XIV).

306. Fundamental Principles. (3-0).

Same as course 305. (Required in I, XII).

312. Money and Banking. (3-0).

Same as course 411. (Not offered during 1922-23). (Required in X).

403. Fundamental Principles. (3-0).

The work in this course is not materially different from that given in courses 305 and 306. On account of the fact that this is a senior course the discussions are somewhat more comprehensive and exhaustive. Also, since the students taking this course are primarily interested in engineering subjects, more emphasis is placed on general business principles.

Text: To be selected.

(Required in III, IV, V, VI, VIII, IX, XIII, XV).

411. Money and Banking. (3-0).

In this course effort is made to familiarize the student with such questions as the following: The evolution of money, the various forms of credit, the history of banking institutions, banks in other countries, the relation of money to banks, the Federal Reserve System, etc. The work is supplemented by reports and class discussions.

Prerequisite: Economics 305 or 306.

Text: To be selected.

(Required in XIV).

## 408. Corporation Finance. (3-0).

This course considers the common forms of business organization, but special attention is given to corporations as the most important of these. The subjects taken up in connection with the text are the following: advantages and disadvantages of incorporation, formation and organization, capital stocks and bonds, legal status of corporations, bankruptcy and reorganization, etc. The work is supplemented by reports from the class and discussions by the instructor.

Prerequisite: Economics 403.

(Required in XIV).

#### FOR GRADUATES.

501. History of Economic Doctrines. (3-0). One-half Minor.

The purpose of this course is to study in detail, beginning with the Physiocrats, the growth of the science of economics. A careful study is made of the various schools of economists, and an analysis is made of such fundamental concepts as production, value, capital, wages, interest, profits, etc., as they have appeared from time to time in the writings of leading economists. Gide and Rist's History of Economic Doctrines serves as a guide into these authorities.

#### 502. Advanced Marketing. (3-0). One-half Minor.

This being an advanced course, it should not be attempted without a solid foundation in economic theory and business principles. In the course little attention is paid to the elementary marketing processes, but special emphasis is placed upon the underlying theories relating to the system of transferring goods from producers to consumers. In connection with the lectures by the instructor and special investigations by the students, a critical study is made of Alfred Marshall's Industry and Trade.

# DEPARTMENT OF ELECTRICAL ENGINEERING

PROFESSOR BOLTON, PROFESSOR WOOTEN, ASSOCIATE PROFESSORS STRAW, SECHRIST, ASSISTANT PROFESSORS YATES, MARKLE, MR. L. L. FOURAKER, MR. LEGG, MR. PAXTON.

#### 201. Electricity and Magnetism. (4-4).

Lectures, recitations and problems in electricity and magnetism. This includes a laboratory investigation of the phenomena studied in the text-book.

Laboratory fee, 75 cents. Prerequisite: Mathematics 102, 103. (Required in V).

## 202. Elementary Electrical Engineering. (2-4).

Lectures and recitations on simple electric circuits, primary and secondary batteries, battery charging, simple telephone circuits, the magnetic circuit, inductance and capacity.

A short time is devoted to the study of the National Electric Code, and of methods of wiring.

The practice is intended to clarify the ideas received by the student in the class room. It includes the accurate measurement of various electrical quantities, such as resistance, inductance, capacity, and the effect of temperature, position, etc., on these quantities; a study of the various types of batteries to determine their adaptability to different uses; calibration and repair of instruments, such as ammeters, voltmeters, and wattmeters; tests of the magnetic properties of iron.

Laboratory fee, 75 cents.

Prerequisite: Electrical Engineering 201, Mathematics 104. (Required in V).

206. Motors, Wiring and Lighting. (2-2).

Same as course 412. Laboratory fee, \$1.00.

(Required in XIII).

301. Direct Currents. (4-6).

This course is devoted to the study of the theory, design, and applications of direct current machinery.

The practice is intended to give practical demonstration of the theory. It includes the operation of dynamos and motors, the determination of characteristics and the measurements and calculation of losses, efficiencies and regulation.

Laboratory fee, \$1.50.

Prerequisite: Electrical Engineering 202, Mathematics 204. (Required in V).

#### 302. Alternating Currents. (5-6).

Lectures and recitations on the principles of alternating currents, including a study of the relations of voltage, current, resistance, inductance and capacity.

An experimental study of the effect of resistance, reactance, and capacity on alternating current circuits; the determination of wave shapes; and tests of some of the simpler types of alternating current machines.

Laboratory fee, \$1.50.

Prerequisite: Electrical Engineering 301, Mathematics 204. (Required in V).

## 305. Electrical Machinery. (3-2).

Lectures and recitations on the operation and characteristics of dynamos, motors and transformers of the types most commonly met with in general engineering practice. This course is intended to give only a general idea of the subject. The course is abbreviated so that only the more fundamental principles are studied.

Text: Principles and Practice of Electrical Engineering, Gray.

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

Laboratory fee, \$1.00.

Prerequisite: Physics 204, Mathematics 204.

(Required in IV, VIII, IX, group 2; XV).

307, 308. Electrical Machinery. (3-0, 2-3).

This course includes instruction in the fundamental principles of direct and alternating current machinery, and operating characteristics of electrical machinery usually installed in power plants and electrically operated industrial enterprises.

Practice includes the operation of the principal types of electric motors, generators and transformers; and the study of their operating characteristics.

Laboratory fee, \$1.00, second term.

Prerequisite: Physics 204, Mathematics 204.

(Required in III, VI).

#### 309, 310. Communication Engineering. (2-0, 2-2).

Construction and theory of telephone, telegraph and radio apparatus. A study of magneto and central battery circuit, alternating current telegraphy, telephone cable construction, poles, towers, insulators, radio communication.

Practice includes the laboratory study of circuits and instruments studied in the course. It emphasizes the fundamental principles rather than the mechanical details of modern practice.

Prerequisite: Electrical Engineering 201, 202 or Physics 204. Must be accompanied by Electrical Engineering 301, 302 or 307, 308.

Laboratory fee, \$1.00, second term.

(Elective in V).

## 401, 402. Alternating Current Machinery (5-8, 3-4).

This course embraces a study of alternating currents and alternating current machinery, including methods of generation, transformation and use; a study of wave forms and quantities affecting wave forms; and the effect of balanced and unbalanced loads.

The subject is treated from both the graphical and the mathematical viewpoint, the text being supplemented by lectures and problems.

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

Text: Principles of Alternating Current Machinery, Lawrence.

Prerequisite: Electrical Engineering 302 or 308.

Laboratory fee, \$1.50 each term.

(Required in V).

## 406. Electric Power Distribution. (2-2).

Lectures and recitations on the transmission and distribution of power by electrical methods.

Practice includes the design and cost estimates of several transmission and distribution systems.

Prerequisite: Electrical Engineering 401.

(Required in V).

408. General Problems. (0-2).

A course of problems based on all engineering work required of the student previous to graduation.

Prerequisite: All subjects required before the second term of the senior year.

(Required in V).

409, 410. Advanced Communication Engineering. (2-3, 1-3).

Advanced telephone, telegraph and radio engineering, including a study of vacuum tubes, long distance telephone circuits, line and cable loading, induction effects, transpositions, phantom circuits, submarine telegraphy, telephone and telegraph repeaters, multiplex telegraphy and telephony, and radio telephony.

Practice includes the laboratory study of circuits and instruments studied in the course. It emphasizes the fundamental principles rather than the mechanical details of modern practice.

Prerequisite: Electrical Engineering 309, 310. (Elective in V).

412. Motors, Wiring, Lighting. (2-2).

An elementary course covering:

(a) A study of the characteristics of the more frequently used types of electric motors.

(b) Lectures on methods of electric wiring for lights and power.

(c) Lectures and recitations on the principles of illumination.

(Elective in I).

423. Electric Railways. (3-0).

A study of railway apparatus, costs of construction and operation of electric railways systems, and operation methods.

The practice in this course consists of the test of electric railway motors, controllers, and other appliances, and tests of electric cars.

Prerequisite: Electrical Engineering 301.

(Required in V).

#### 426. Illumination. (1-2).

A course dealing with the principles of illumination and the application of these principles to specific cases. Attention is given to the arrangement of electric lights for decorative purposes as well as for useful illumination.

The practice in this course includes the test of various types of lighting units, the design of lighting systems, and the test of the illumination of buildings already lighted.

Laboratory fee, 50 cents.

Prerequisite: Electrical Engineering 302.

(Required in V).

428. Telephone Engineering. (2-0).

A study of telephone circuits and telephone transmission. Prerequisite: Electrical Engineering 301, 305, or 307. (Required in V).

436. Wiring and Lighting. (3-0).

(a) A study of the fundamentals of interior wiring.

(b) The principles of artificial illumination with a study of modern types of illuminants.

(Required in IX, group 2).

#### FOR STUDENTS IN SHORT COURSES.

21. Electricity and Magnetism. (4-4).

A modification of course 201.

Laboratory verification of the laws studied in the theory. The course also includes the use of instruments for the measurements of voltage, current, resistance, etc.

Laboratory fee, \$1.00.

(Required in N).

22. Direct Currents. (4-4).

A modification of course 301. Laboratory fee, \$1.00. (Required in N).

## 55. Alternating Currents. (5-4).

A study of alternating currents with particular emphasis laid on the practical application of the subject matter. As far as possible, the subject is treated from the graphical viewpoint.

Laboratory fee, \$1.00. (Required in N).

· - ·

# 56. Electrical Machinery. (5-4).

A study of the types of electrical machinery usually found in power plants and electrical installations. The course deals principally with alternating current machinery.

The practice includes the test of alternating current machines. Laboratory fee, \$1.00.

(Required in N).

61, 62. Electrical Laboratory. (0-4).

Laboratory tests of electrical meters and other machines, practice in installing electric wiring and in constructing and repairing electric machines.

Laboratory fee, \$1.00 each term.

(Required in N, group 1).

65, 66. Applied Electricity. (3-0).

The study of wiring methods, meters, storage batteries, lighting, and line construction.

Practice for this course is given in course 61, 62.

(Required in N, group 1).

# DEPARTMENT OF ENGLISH

ACTING PROFESSOR COFER, ASSOCIATE PROFESSORS THOMAS, BRACKETT, ASSISTANT PROFESSORS GUNTER, PAGE, HICKMAN, MORGAN, MR. BITTLE, MR. SPAHR.

103, 104. Rhetoric and Composition. (3-0).

This course involves recitations, oral and written, readings from masterpieces of literature, and composition writing.

(Required in all four-year courses; elective in C).

203, 204. English Composition. (2-0).

This course is intended to give the student practice in writing themes and reports on subjects related to his studies in agriculture or in engineering. Attention is also given to the writing of business letters.

Prerequisite: English 103, 104.

(Required in all four-year courses).

301, 302. Argumentation. (1-0).

This course involves a study of the essentials of argumentation, and practice in drawing briefs.

Prerequisite: English 203, 204. (301: Required in I, III, V, XI, XII, XIV).

(302: Required in III, IV, V, VI, VIII, IX, groups 1, 2; XI, XII, XIV, XV).

303, 304. Argumentation. (2-0).

This course is a modification of course 301, 302. More time is devoted to reading and to oral discussions than is available for course 301, 302.

Prerequisite: English 203, 204.

(303: Required in IV, VI, VIII, IX, groups 1, 2; X, XV).

(304: Required in I, X, XIV).

## 321, 322. Victorian Literature. (3-0).

In this course English literature of the Victorian era is treated as a reflection of the predominant ideals in politics, economic theory, science, philosophy, and religion. Weekly themes in connection with the reading are a feature of the course.

(Elective in all four-year courses except XI, XII).

#### 423, 424. Contemporary Literature. (2-0).

The purpose of this course is to acquaint the student with the trend of thought of the twentieth century as exemplified in standard literary productions. Particular attention is given to writings which reflect political, social, scientific, and ethical movements, such as democracy in government, world consciousness, complexity of society and industry, research, forces in social reconstruction. Parallel readings, with oral and written reports, are required.

(Required in X).

#### 401, 402. Public Speaking. (1-0).

The aim of this course is to help the student to a simple, direct manner of speaking. The work consists of the oral interpretation of some of the best orations, writing and delivering original pieces, and debating. Personal conferences with the instructor are required.

(Required in all four-year courses).

## 403, 404. Public Speaking and Lecturing. (3-0).

The aim of this course is to give more practice in speaking than is offered in the required one-hour course. Attention is given to the preparation and delivery of special types of speeches and of lectures on popular scientific and industrial subjects. The course is recommended to those who expect to be engaged in teaching, in the extension field, or in similar lines of public service. Conferences with the instructor are required.

(Elective in all four-year courses except X, XI, XII).

#### FOR STUDENTS IN SHORT COURSES.

#### 31, 32. Practical Composition. (3-0).

This course includes a review of the fundamental principles of composition. The written exercises are on practical subjects, especial attention being given to business correspondence.

(Required in all two-year courses).

#### ENTOMOLOGY.

#### ENTOMOLOGY

## PROFESSOR BILSING, ASSOCIATE PROFESSOR FLETCHER, Assistant Professor Remy.

## 201. General Entomology. (2-2).

In this course the student is taught the systematic position of the various insects. The relation of the anatomy of insects to control measures is also studied. The life histories of the more common insects are given, together with the methods of control for the injurious forms.

Laboratory fee, 50 cents.

Text: Elementary Entomology, Sanderson and Jackson. (Required in I).

#### 203. Veterinary Entomology. (3-2).

A study is made of the more important insects which affect domesticated animals. Special attention is given those insects which act as disease carriers. Methods of control are discussed. Flies, fleas, ticks, and mites are some of the forms which are given attention in this course.

Text: Veterinary and Medical Entomology, Herms.

(Required in XI).

#### 205. Systematic Entomology. (2-2).

This course includes a systematic study of the most common insects. The anatomy and physiology of insects will be discussed together with their relationships to plants and other animals.

(Elective in  $\tilde{X}$ ).

Laboratory fee, 50 cents.

#### 206. Economic Entomology. (2-2).

The life histories, habits and control methods of the common injurious insects will be considered in this course. The control of insect outbreaks by the use of parasites and entomogenous fungi will be considered. Special emphasis will be given to insecticides, spraying and dusting machinery.

(Elective in X).

Laboratory fee, 50 cents.

#### 301, 302. Systematic Entomology. (2-2, 3-2).

A thorough, systematic study of the various orders of insects is made in this course. The student has free access to the entomological library, which contains bound volumes of all standard publications on entomology, keys, etc. The student also has access to a considerable insect collection for identification purposes.

Text: Comstock's Manual of Insects.

(Elective in I, X).

### 304. A piculture (Elementary). (2-2).

This is an elementary course in beekeeping open to all four-year students. The course is arranged so as to give the student a working knowledge of beekeeping which will prepare him for conducting a small apiary in connection with general farm work or for entering commercial beekeeping as a vocation. The course includes a study of the life history of the honey bee, methods of making hives and equipment, and the control of bee diseases. The department is equipped with an apiary, hives, tools, wax presses, automatic extractors, and the standard equipment used in beekeeping.

Text: Productive Beekeeping, Pellet. (Elective in I, X).

## 306. Animal Parasites. (3-0).

This course consists of a study of insects and other anthropods which are parasitic upon domestic animals or which are concerned in the transmission of diseases of live stock. Methods of eradication and control are given due emphasis.

Prerequisite: Entomology 201. (Elective in I, group 5).

#### 307. Apiculture. (3-2).

This course is intended for those who wish to make a special study of beekeeping and should be followed by Entomology 308 and Entomology 408. A study is made of the biology of the honey bee. Working over out-of-date equipment, extracting honey and the preparation of wax are given due attention. Some time is given to studying the various methods of wintering.

(Elective in I, X).

#### 308. A piculture. (3-4).

Special attention is given to the honey plants and the areas most suited to beekeeping. A study is made of the methods of swarm control, hive manipulation and increase. The marketing of wax and honey and the methods used in eradicating bee diseases is studied.

(Elective in I, X).

## 312. Medical Entomology. (3-2).

This course is intended for those who wish to specialize in the general sciences. It comprises a study of the life histories, habits, and control methods of insects which are directly concerned in the transmission of human diseases such as yellow fever, malarial fever, typhus fever, bubonic plague, etc.

Laboratory fee, \$1.00.

Text: Medical Entomology, Johannsen and Riley. (Elective in X).

#### ENTOMOLOGY.

#### 401. Advanced Economic Entomology. (3-2).

This course is arranged for students intending to follow entomological work. Particular attention is given to economic problems, methods of entomological research, and field methods of insect investigation and control. This course also embraces insectary methods of breeding insects and studies of insect parasitism.

Prerequisite: Entomology 201.

(Elective in I, X).

## 402. Advanced Economic Entomology. (3-2).

A continuation of Entomology 301. In addition to a field and laboratory study of life histories which has been carried on in course 301, the student goes into a detailed study of insecticides. Various types of spraying machinery, dusting machines, fumigating apparatus are discussed.

(Elective).

## 403. Entomological Literature. (3-2).

The aim of this course is to acquaint the student with the most important works on the classification of insects. Publications of various entomologists are discussed. A review of the more important bulletins published by the United States Department of Agriculture and the various State Experiment Stations is made.

(Elective in X).

#### 405. Fruit Insects. (2-2).

This course is intended for students who are specializing in horticulture and who wish more definite information concerning the insect pests of fruit and truck crops. A detailed study is made of the life history, habits and control of the pests of these crops. Special attention is given to control methods adapted to Texas conditions and to the value of parasites and orchard management in the control of insect pests.

(Elective in I, group 9).

#### 407. Economic Entomology. (3-2).

Special attention is given to the insects which are directly beneficial or injurious. A study is made of the life history of the important pests of farm crops, fruits, vegetables, and live stock. Methods of control and means of preventing insect outbreaks are given due consideration.

In the laboratory the student studies spraying machinery, fumigating apparatus and dusting machinery, the more important insecticides and makes and applies them when possible.

Text: Pests of Farm, Orchard and Garden, Sanderson and Peairs. (Elective in I, groups 4, 9).

## 408. Apiculture, Queen Rearing. (1-4).

The student is given the theory of the various methods of queen rearing. Part of the time is given to the methods of shipping combless packages of bees, and management of apiaries.

Text: Practical Queen Rearing, Pellet. (Elective).

# 410. Seminar. (0-2).

An informal conference is held once a week with the members of the department in which the student reports on some important problem. Reviews of various entomological publications are given.

(Elective in X).

## FOR GRADUATES.

# 501, 502. Research Entomology. (3-4). Major.

A special research problem is assigned to each student taking this course, in which he makes a life history study of some important insect. The student will make a study of all available published literature on this subject. In addition to this, he will make a systematic study of some group of insects, either of the group to which the insect belongs of which he is making a life history study or of some related group.

Laboratory fee, \$2.00 each term.

# 501a, 502a. Research Entomology. (2-4). Minor. A modification of course 501, 502.

#### 505, 506. Advanced Apiculture. (3-4). Major.

Part of the time in this course is devoted to a problem in apiary management or in the study of one or more of the diseases affecting bees. Grading and marketing honey, foul brood laws, and methods of eradicating bee diseases are given due consideration.

# 505a, 506a. Advanced Apiculture. (2-4). Minor.

A modification of course 505, 506.

## 507, 508. Economic Entomology. (3-4). Major.

In this course a detailed study is made of the most important economic pests. A comparison is made of the structure of insects belonging to the same group which attack our more important crops. In addition to this, cultural methods, trap crops, insecticides, and fumigation are discussed in connection with these insects.

Laboratory fee, \$2.00 each term.

507a, 508a. Economic Entomology. (2-4). Minor. A modification of course 507, 508.

## FARM MANAGEMENT.

#### FOR STUDENTS IN SHORT COURSES.

# 22. Elementary Economic Entomology. (2-2).

This course is intended for those students who do not have the time to make a careful study of insects but who are interested in obtaining information on the control of our more common pests, together with a knowledge of the commoner insecticides. As far as time permits, a general discussion is made of the most common pests of cotton, wheat, oats, corn, fruits, and live stock.

Laboratory fee, 50 cents.

(Required in C).

#### 56. Elementary Apiculture. (2-2).

A study is made of the habits of the honey bee, behavior in swarming and methods of increase. Most of the time is devoted to a study of the methods of manipulation, transfer, and swarm control.

(Elective in C).

## DEPARTMENT OF FARM MANAGEMENT

PROFESSOR WHELPTON.

301. Farm Cost Accounting. (1-4).

Based on the accounting course given by the Department of Agricultural Economics. Applies to farm conditions the general bookkeeping principles and methods, and considers in detail the recording of internal farm transactions; the distribution among the farm enterprises of such costs as man labor, horse labor, use of land, and use of buildings; the preparation of cost statements for each enterprise and the business as a whole; the interpretation of these accounts and statements and their application to the organization and management of the farm business.

Text: Farm Accounting, Scovill.

(Elective in XIV, group 2; not given in 1922-23).

#### 302. Farm Management. (3-4).

The application of the principles taught in the various agricultural and economic courses to the organization and administration of the individual farm business, the point of view being, "How can I plan and run my farm to achieve the greatest success?" Specific topics are: Farming as a business; types of farming; size, diversity, and quality of business; farm layout and building arrangement; equipping a farm as to labor, work stock, power, and machinery; forms of leasing; choosing and buying a farm; planning work and business transactions; using capital and credit; analyzing business to locate weaknesses; adapting business to changing conditions; planning the organization and management of specific farms.

Text: Farm Management, Warren.

(Required in XIV; not given in 1922-23).

401. Farm Management. (2-4).

Similar to course 302, but more brief and general in nature. Text: Farm Management, Warren. (Required in I, XII).

402. Farm Management. (3-4).

Same as course 302.

(Required in XIV, XV, session 1922-23).

404. Farm Records. (1-4).

How to keep the simple records needed to show how well the farm business is paying and to serve as a basis for making improvements to increase profits. Farm inventories, cash accounts, income tax statements, costs of single enterprises, and other farm records are carefully considered.

Text: To be selected.

#### 405. Business Analysis. (1-6).

Applying the subject matter of course 302. Successful and unsuccessful farms are visited, their present organization and administration is studied thoroughly to bring out the desirable and undesirable features; their degree of success or failure is correlated with the extent to which sound farm management principles are followed; and careful plans that will rectify existing weaknesses are prepared. Advanced studies of certain farm management principles will be made during the course in connection with their application to the farms visited. One or two trips of two or three days will be made to important farming regions at some little distance from the College.

Text: Farm Management, Warren, and selected bulletins.

(Elective in XIV, group 2; not given in 1922-23).

# 406. Advanced Problems. (1-2).

An advanced study of such problems as adjusting farm organization and administration to changing farm business conditions. Considers in detail: causes, extent, and probable future trend of changes; their effect on different groups of farms; possible adjustments as to cost and effect on income and profit; proper time to make adjustments.

Text: To be selected.

(Elective in XIV, group 2; not given in 1922-23).

407. Types of Farming. (1-2).

An advanced study of the types of farming best adapted to various

Forestry.

parts of Texas and the United States, and of the natural and economic reasons giving these types their advantages.

Text: To be selected.

(Elective in XIV, group 2; not given in 1922-23).

408. Ranch Management. (2-2).

Farm management principles as they apply particularly to the ranch country of West Texas. Includes size, diversity and quality of business; ranch layout and building arrangement; ranch equipment; using capital and credit; planning the organization and management of specific ranches.

Text: To be selected.

(Elective in XIV, group 2; not given in 1922-23).

FOR GRADUATES.

501, 502. Advanced Farm Management. (3-4). Major.

An intensive study is made of such topics as farm business analysis, types of farming and factors affecting type, and farm management methods. Free use is made of the various farm management technical publications, and certain recent important investigations are carefully studied.

501a, 502a. Advanced Farm Management. (2-4). Minor.

A modification of course 501, 502.

#### FOR STUDENTS IN SHORT COURSES.

## 52. Elementary Farm Management. (2-4).

A study of the farm from a business standpoint. The course takes up such business problems confronting the farmer as the most profitable size of farm and combination of crop and live stock enterprises, and how to locate weak places in the business plan that can be improved with resulting profit.

Sufficient time is given to farm accounting in practice periods to show how to keep and use simple records of the farm business. One practice problem will be the equipping of a given farm and the planning and organizing of a year's business.

Text: Farm Management, Boss.

(Elective in C).

## DEPARTMENT OF FORESTRY

#### PROFESSOR SIECKE, ASSISTANT PROFESSOR DREITZLER.

## 302. Silviculture. (2-2).

This course consists of two parts, a study of trees under natural conditions, and the planting and care of shade trees as well as trees set out in shelter-belts, wind-breaks, and wood lots. The first part consists of a study of the life history of trees; the relation of different species to light, moisture, soil, temperature, and the effect of their association on the forest; origin and determination of forest types; the relation of forests to stream flow; description of forests; preparation of forest maps; improvement of young forests; and the proper cutting and use of mature forests so as to secure natural reproduction; silvicultural systems of cutting as practiced in the forests of Europe and the United States.

The second part deals with the species suitable for shade trees and for planting in shelter-belts, wind-breaks and wood lots; cost of planting; care of shade trees, parks and tree plantations; elementary tree surgery.

Text: Principles of Handling Woodlands, Graves. Lectures and field work.

(Elective in I, all groups; C).

#### 304. Principles of Forestry. (2-2).

This course is intended to give the student a general knowledge of forestry, tracing its history from the beginning in European practice to the United States and following its development in this country. In addition, the course consists of a general survey of the fundamental principles underlying forestry, including the relation of forests to soil, moisture, light, and climatic conditions; influences of forests upon stream flow; the important systems of treating woodlands practiced in Europe and in the United States; the habits of important economic timber trees and the character and uses of the more important woods; preparation of forest maps and working plans; methods of estimating standing timber and measuring its growth by the use of various forest instruments; artificial regeneration of forests by seeding and planting, and the best trees for ornamental and shelter-belt planting; effects of forest fires and the study of other important enemies of the forest; a brief treatise on the timber regions of the United States; the amount of standing timber and the consumption of timber; the practice of forestry by the government, particularly on its national forests, and the present status of forestry in the States and among private · owners of timber land.

Text: Elements of Forestry, Moon and Brown.

(Elective in I, all groups; C).

#### DEPARTMENT OF GEOLOGY

PROFESSOR RANDOLPH, ASSOCIATE PROFESSOR F. A. BURT.

## 201. Physical Geography. (2-2).

Outstanding physiographic processes and resultants; geographical features of the earth as a member of the universal family; oceanography; relief operations; atmospheric agents and resultants; and the relations of these various physiographic influences upon life forms and human welfare.

Laboratory exercises appropriate to these lines of thought are followed out in as thorough manner as time will allow.

Prerequisite: Chemistry 103, 104.

Laboratory fee, \$1.00.

(Elective in X).

#### 202. Industrial and Commercial Geography. (2-2).

Humanity in action, as influenced by natural environment and necessity of commerce and industry. In addition to regional knowledge, descriptive and statistical data of ports, trade routes, and economic reasons of size and greatness of such are considered in detail. Various types of geographical industry are discussed from the standpoint of cause and results.

Laboratory exercises suited to the content of the course.

Prerequisite: Geology 201.

Laboratory fee, \$1.00.

(Elective in X).

## 209. General Geology. (3-2).

A critical introduction to dynamical, structural, and historical geology. The dominant geologic processes, together with their resultants, are emphasized. A general working knowledge of the economic and the other associated phases of geology is presented.

The laboratory work includes the megascopic identification of the more common rock-forming minerals and representative members of the common rock groups; introductory map reading; and occasional field excursions.

Laboratory fee, \$1.50.

Prerequisite: Chemistry 101, 102.

(Required in I).

## **210.** Agricultural Geology. (2-2).

This specialized phase of geology is a natural outgrowth of facts and materials that are treated in general geology above. The general principles of physical and structural geology are emphasized with special reference to disintegration and decomposition. Much attention is devoted to such topics as these: structure, composition, formation, association, soil values, and other characteristics of rocks and rock forming minerals; the principles of rock-weathering and soil formation; physiographic conditions and processes; erosion, drainage, etc. These topics are treated in such a manner as to relate and properly interpret geology and agriculture.

In the laboratory attention is given to the comparison, composition, and agricultural value of minerals and rocks; the study of maps and models; supplemental study with stereoscopes, etc. Laboratory fee, \$1.50. Prerequisite: Geology 209. (Elective in I).

## 212. Introductory Soil Geology. (3-2).

The object of this course is to present a concise treatment of the primary fundamentals necessary for teachers who wish to offer work in soil geology and as preparatory work to courses in soils. The first several lectures are devoted to general geology principles and terms. Regular class study is directed along the following lines: the origin, mineralogical composition, distribution, transportation, and fixation of soils; geologic agents such as water, wind, ice, vulcanism, organism, etc.; the influence of rock texture and structure in soil formation; also a consideration of the part played by earth relief.

In laboratory work, careful attention is given to the study and ready identification of the representative, rock-forming minerals, not simply as such but with special reference to their soil values. Among the minerals studied are those with natural fertilizer, aeration, and percolation qualities. The mineralogic composition, texture, structure, and occurrence of the common soil-forming rocks are studied also. Models and regional maps are used for illustrative purposes.

Laboratory fee, \$1.50.

(Required in XII).

301. General Geology. (3-2).

Same as course 209.

Laboratory fee, \$1.50.

Prerequisite: Geology 202 in X; Chemistry 102 in XV. (Required in XV; elective in X).

302. Historical Geology. (3-2). Same as course 410.

Prerequisite: Geology 301.

Laboratory fee, \$2.00.

(Elective in X).

306. General Geology. (3-3).

Necessarily some phases of this course are similar to fundamentals in course 209; but special attention is given to paving the way for students who will pursue course 409. Critical study is made of structural, dynamic, and metamorphic agencies affecting the general engineering side of geology. Each student is required to familiarize himself with the necessary vocabulary for advanced work.

The laboratory work covers the same materials as in course 209, but is intensified with map and folio readings.

Laboratory fee, \$2.00.

Prerequisite: Chemistry 101, 102.

(Required in IV, VIII; elective in IX).

#### GEOLEGY.

#### 401. Mineralogy. (1-6).

This work is designed to meet the ordinary needs of the elementary student in mineralogy, the mining engineer, the geologist, and the practical layman who may be interested in this subject.

The laboratory exercises include a careful study of a representative number of mineral types, and are both descriptive and determinative in nature. Blowpipe work, simple chemical tests, and the rudiments of crystallography are emphasized.

Laboratory fee, \$2.00.

Prerequisite: Geology 302.

(Elective in X).

#### 402. Economic Geology. (3-2).

A consideration of the most common and most useful non-metals: coals, clays, building stones, calcareous materials, natural fertilizers, underground waters, etc., with special emphasis upon the geologic, geographic, and associative occurrence of these non-metallic mineral deposits; also, the production, commercial uses, and the conservation of our mineral resources.

In the laboratory work, the student gains first-hand and determinative knowledge of these resources.

Laboratory fee, \$2.00.

Prerequisite: Geology 401.

(Elective in X).

#### 403. Petrology. (2-4).

In this course, petrogenesis is considered somewhat in detail. The utility and durability of various genetic rock groups are carefully considered. The areal, stratigraphic, and commercial deposits of useful rocks receive proper attention. A working knowledge of petrology is useful to field geologists, civil engineers, chemists, miners, architects, and teachers in geography and geology.

In addition to the megascopic studies in the laboratory, the students are taught the use of the petrographic microscope in section work; and they are required to do a representative amount of microscopic determinations. Report and map work are required. This course will prove of special help to any student considering either State or Federal survey work.

Laboratory fee, \$2.00. Prerequisite: Geology -----. (Elective in X).

## 404. Petroleum Geology. (3-3).

The purpose of this course is to present some of the more important fundamentals that are necessary for those who anticipate becoming actively engaged in prospecting, exploiting, investing, or engineering in oil and gas areas. The student's attention is directed along the following lines: general geological agencies, processes, and resultants; the

origin, composition, distribution, association, exploitation, and migration of the hydrocarbons; catchments, stratigraphy, and discovery; well decline, exhaustion, conservation; well and field technology; commercial problems, valuations, etc.

The laboratory work includes a study of rock-forming materials; mineral structures, textures, capillarity, porosity; sedimentation, sedimentaries, and metamorphism in relation to oil and gas occurrences; petroliferous materials; comparative study in well cuttings and well logs; map interpretation and construction; careful study of type areas; field excursions.

Laboratory fee, \$2.00.

Prerequisite: Geology 209.

(Elective in IV, VIII, X).

# 409. Engineering Geology. (2-2).

The theoretical side of this subject is emphasized only when necessary, but the practical side is kept prominently in the foreground because agriculture, industry, and commerce are so vitally affected by the work of the engineering geologist. Among the topics to which special attention is devoted are these: geologic agencies determining the exploitation, usability, and value of dimension stones and rough constructional materials; location, extraction, and transportation; labor problems; foundations, drainage, etc.; and the general application of geological principles to engineering problems.

The work in the laboratory pertains to intense study of the common dimension stones and other constructional materials; a rapid survey of the more important metals and non-metals; detail work on structure sheets; a study of type areas of economic importance; written reports on a comparative study of State and Federal surveys, etc.

Text: Ries and Watson's Engineering Geology.

Laboratory fee, \$1.50.

Prerequisite: Geology 306, Physics 203, 204.

(Required in IX, group 2; elective in IV).

#### 410. Historical Geology. (3-2).

Prectically the entire time is devoted to a careful consideration of the development of the earth from the beginning of geologic time to the present, with special reference to the evolution of the North American continent. Also stratigraphic principles and relationships as interpreted from the structural and fossil records of the earth. Emphasis is placed upon environmental influences and adaptability of life forms.

Text: Pirsson and Schuchert's Historical Geology.

Laboratory fee, \$2.00.

Prerequisite: Geology 302.

#### HISTORY.

412. General Geology. (3-3). Same as course 306. Laboratory fee, \$2.00. (Required in V).

419. General Geology. (3-2).
Same as course 306.
Laboratory fee, \$2.00.
(Required in IX, group 2).

#### DEPARTMENT OF HISTORY

PROFESSOR MCDONALD.

206. Citizenship. (3-0). Same as course 305.

(Required in X).

207. Europe Since 1815. (3-0).

The aim of this course is to help the student acquire a comprehensive view of the forces and movements of the nineteenth century which culminated in the World War in the twentieth century, including the reaction of the revolutionary and Napoleonic era, the industrial revolution, democratic reforms, nationalism, commercialism, imperialism, international rivalries, the League of Nations, and reconstruction following the World War.

(Required in X).

# 305. Citizenship. (3-0).

The purpose of this course is to prepare the students to render effectively the public services of useful citizens; by helping them acquire the common fund of political knowledge which should be the asset of all citizens; by acquainting them while in college with the political issues of the day; by grounding them in the fundamental principles of civil liberty and the rights of private property, and by helping them see how hardly democracy was won and how easily it may be lost.

(Required in XIII, XIV; elective in I).

306. Citizenship. (3-0).

Same as course 305.

(Required in all four-year engineering courses).

307. Europe Since 1815. (3-0).

Same as course 207.

(Elective in all four-year courses, except X, XI, XII, XIII).

308. Industrial History of the United States. (3-0).

In this course the industrial progress of the United States is studied. The expansion of territory, development of natural resources, growth of commerce, organization of labor and capital are considered. Contemporary industrial problems receive attention.

(Required in XIII; elective in all other four-year courses except X, XI, XII).

#### 312. Latin-American History. (3-0).

To acquaint students with the essential facts as to the rise and progress of Latin-America, and the interdependence of the United States and the Latin-American states, is the purpose of this course. The eras of conquest, colonization, revolution, and independence; the new industrial order, intellectual development, Latin spirit and culture, and struggle for orderly government; and the growth of Pan-Americanism are studied.

(Required in XIV).

#### 411, 412. The Outline of History. (3-0).

This course is designed to give seniors a grasp of the adventures and achievements of mankind, to enable them to adjust in proper proportion the scientific and social facts which they have already acquired, and to help them realize the position in relation to universal history which each occupies as an individual and as a member of a profession and of a nation. The course is based upon the use of a text-book, but is largely supplemented by lectures on the geological, biological, economic, agricultural, educational, and artistic phases of history. These lectures will be delivered by members of the teaching staff in various departments of the College, and the course will, therefore, be synthetic and co-operative in character.

Director of the course, Mr. Thomas F. Mayo; lecturers, President W. B. Bizzell, Dr. O. M. Ball, Dr. Mark Francis, Dr. F. B. Clark, Professor F. A. Buechel, Professor J. F. McDonald, Professor E. B. LaRoche, Mr. C. E. Friley, and Professor G. A. Geist.

(Elective for seniors in all courses).

# DEPARTMENT OF HORTICULTURE

# PROFESSOR KYLE, PROFESSOR POTTS, ASSOCIATE PROFESSOR HENSEL, ASSISTANT PROFESSOR ADRIANCE, MR. COLE, MR. BRISON.

## 201. Plant Propagation and Orcharding. (2-2).

Lectures and recitations on the fundamental principles and methods of plant propagation, including vegetables, fruits and ornamentals. The methods of planting and managing the home orchard are also covered. Lectures and recitations.

Practice is given in propagation of plants from seed, budding, grafting, and in planning, planting, pruning, spraying, and general care of the home orchard.

Text: Plant Propagation, Kains. Lectures.

Laboratory fee, 75 cents.

Prerequisite: Biology 101, 102.

(Required in I, XII).

## 202. Vegetable Gardening. (2-2).

Detailed instruction in planning, planting, equipping and operating vegetable gardens, with special reference to the needs of the home. Canning and storage of vegetable crops for home use also receive consideration.

Text: Garden Farming, Corbett. Lectures and references.

The practice is devoted to planning, planting and cultivating a small garden, equipping, fertilizing, spraying, harvesting, erection of hotbeds and cold frames.

Laboratory fee, 50 cents.

(Elective in I, XII, XIV; required in C, M).

# 303. Principles of Fruit Production. (3-2).

This course includes a comprehensive study of orchard management, including problems of location, soils, planting, cultivating, protection from insects and diseases, pruning, harvesting and marketing.

The laboratory work consists of the actual practice in orchard work from planting to marketing.

Text: Principles of Fruit Growing, Bailey. Lectures and recitations. Laboratory fee, \$1.00.

Prerequisite: Horticulture 201.

(Required in I, group 9; elective in I, XII, XIV; C).

## 304. Nut Culture. (1-4).

This course includes a study of those nuts which are of the greatest economic importance. Special attention is given to the native nuts. Top-working the native pecan and hickory to improved varieties of pecans is fully discussed.

Lectures and recitations.

Practice is given in budding and grafting pecans in the nursery row; also in top-working native pecans to improved varieties by means of the patch, chip, crown budding and grafting. A systematic study is made of the standard varieties of nuts.

Laboratory fee, 75 cents.

Prerequisite: Horticulture 201.

(Elective in I, XII, XIV, C).

307. Introduction to Landscape Art. (2-2).

A course designed both for students specializing in Landscape Design and for those wishing a general course, sufficiently comprehensive to enable them to properly plan small home and school grounds.

Practice consists of the drawing of plans for the small home grounds, school grounds and other public and semi-public places.

Illustrated lectures, recitations and simple problems.

(Required in I, group 10; elective in I, XII, XIV).

308. History of Landscape Design. (2-0).

A comprehensive study of the development of landscape design.

Illustrated lectures and recitations.

(Required in I, group 10).

310. Commercial Vegetable Production. (2-2).

In this course a study is made of the production of vegetables for market. Consideration is given climate, soil, equipment and storage, as they affect production and marketing in Texas and other States. The chief vegetable crops receive detailed study.

Lectures and recitations.

Practice is given in the actual production, harvesting and marketing of vegetable crops.

Laboratory fee, \$2.00.

Prerequisite: Horticulture 202.

(Required in I, group 9).

312. Vegetable Gardening. (2-2).

Same as course 202. Laboratory fee, 50 cents. (Required in XV).

401. Systematic Pomology. (3-2).

A technical course covering deciduous fruits, their identification, classification, distribution, importance, and history, and a detailed study of the more important species and varieties.

Practice is given with such fruits as can be obtained during the season. Laboratory fee, \$4.00.

Prerequisite: Horticulture 303.

(Required in I, group 9).

404. Commercial Horticulture. (2-2).

This course includes a study of the most satisfactory methods of harvesting, grading, packing, shipping, storage and selling of fruits and vegetables. Co-operative and the various other selling agencies receive attention.

Lectures and recitations.

Laboratory fee, \$2.00. Prerequisite: Horticulture 202, 303. (Required in I, group 9).

## 405. Bush and Vine Fruits. (2-2).

This course consists of a study of the propagation, culture, harvesting and marketing of small fruits, such as the blackberry, dewberry, strawberry, grape, etc. Attention is given to the varieties best adapted to Texas conditions.

Lectures and recitations.

Practice is given in planning, planting, pruning, spraying and general field management.

(Elective in I, XII, XIV).

#### 408. Floriculture. (2-2).

This course is designed to give the student a working knowledge of the culture and use of the annuals, perennials, and bulbous plants especially adapted to our climatic conditions. Home adornment with flower beds, flower borders, window boxes, and plants for the living room is the salient thought throughout the course.

Text: White's Principles of Floriculture.

Practice is given in the growing, transplanting and care of a few of the most useful plants.

Lectures and recitations.

Laboratory fee, \$2.00.

Prerequisite: Horticulture 201.

(Required in I, group 10; elective in group 9).

## 412. Horticultural By-products. (1-4).

This course is designed to enable the grower to utilize surplus products of the orchard and garden or to save by canning the higher grades when prices are low.

Lectures and recitations.

Practice is given in the manufacture of fruit juices, preserves, jelly, soup stock, canning, and drying.

Laboratory fee, \$1.00.

(Elective in I, group 9).

#### 413. Seminar. (0-2).

This course is planned to cover, by informal discussions, a large number of timely horticultural topics. Any problems the horticultural student meets may be submitted for discussion. A rather complete review of horticultural books, journals, and periodicals is made. Time is also given to the study of market and storage reports.

(Elective in I, XII, XIV).

## 414. Ornamentals. (2-2).

This course embraces a thorough study of the ornamentals adapted to Southern conditions.

Lectures and recitations.

Practice is given in the propagation and classification of ornamentals. Laboratory fee, \$2.00.

Prerequisite: Horticulture 201.

(Required in I, group 10).

415. Landscape Design. (3-4).

This course gives the principles underlying Landscape Art. It also deals with the solving and drafting of problems dealing with landscape work.

Lectures and recitations.

Text: Landscape Architecture, Hubbard and Kimball.

Prerequisite: Horticulture 307, or its equivalent.

(Required in I, group 10).

416. Landscape Design. (3-4).

A continuation of course 415.

Text: To be assigned.

(Required in I, group 10).

## 417. Civic Improvement. (2-0).

This course includes the fundamental principles of city planning; the study of streets, sidewalks, civic centers, and the general improvement of public and semi-public properties.

Text: City Planning, C. M. Robinson.

(Required in I, group 10).

419, 420. Experimental Horticulture. (1-0, 0-4).

A study of research methods and the planning and execution of a project along horticultural lines. The student is expected to become thoroughly familiar with all phases of his problem and to execute the work in a creditable manner. The project statement must be submitted by December 15 and completed by commencement.

Lectures and assignments.

Laboratory fee, \$4.00.

(Elective in I, XII, XIV).

## 422. Subtropical Fruits. (3-2).

A study of all the species of subtropical fruits. Special attention is given to the growing of citrus fruits, figs, olives, dates, and other hardy varieties of tropical and subtropical fruits.

**b**ectures and recitations.

Practice in the study of the various fruits and in the propagation of the different species of subtropical trees. Orchard heating is given attention.

Laboratory fee, \$4.00.

(Elective in I, XII, XIV).

#### FOR GRADUATES.

501, 502. Advanced Fruit Growing. (3-4). Major.

This course includes an advanced study of fruit production. Special attention is given to the problems of cultivation, fertilization, pruning, thinning of fruit and protection from frost and insect pests and disease. A special study is made of the improvement of fruit by means of bud selection and breeding.

Prerequisite: Horticulture 302, 303, 401, or equivalent work.

501a, 502a. Advanced Fruit Growing. (2-4). Minor. A modification of course 501, 502.

503, 504. Advanced Vegetable Gardening. (3-4). Major.

In this course an advanced study is made of the latest methods used in the successful production of vegetables for market and truck gardening purposes. A special study is made of the systems of irrigation. Considerable time is also devoted to a study of the more advanced methods of forcing plants for early market. This course also includes a study of the development of plants by breeding and selection.

Prerequisites: Biology 101, 102, Horticulture 202, 301, 404, 420, or equivalent work.

503a, 504a. Advanced Vegetable Gardening. (2-4). Minor. A modification of course 503, 504.

505, 506. Advanced Landscape Art. (3-4). Major.

Advanced landscape design, including the gathering of data, making of preliminary reports, detailed working plan, specifications, including nursery list of prices, and a finished water color rendering of the problem assigned.

Prerequisite: Civil Engineering, 319, Drawing 316, Horticulture 407, 415, 416, or equivalent work.

505a, 506a. Advanced Landscape Art. (2-4). Minor.

A modification of course 505, 506.

FOR STUDENTS IN SHORT COURSES.



21. Plant Culture and Propagation. (2-2).

Similar to course 201, except that orcharding is omitted. Lectures and recitations.

Practice work in the propagation of seedlings and the different forms of budding and grafting, layering, etc.

Laboratory fee, 75 cents.

Text: Principles of Plant Culture, Goff. (Required in C).

53. Tree and Vine Fruits. (3-2).

A practical study is made of fruit growing. This includes the problems of planting, cultivating, pruning, harvesting and marketing.

Lectures and recitations.

Text: Productive Orcharding, Sears.

Practice is given in laying out orchards, planting, spraying, pruning, etc.

Laboratory fee, \$1.00. Prerequisite: Horticulture 21. (Elective in C).

60. Pecans. (1-4).

In this course a practical study is made of pecans, including the planting and care of trees for nursery purposes, the development of groves to improved varieties and the converting of native seedlings to improved varieties.

Lectures and recitations.

Practice is given in planting pecans and in the various forms of propagation.

Prerequisite: Horticulture 21.

Laboratory fee, 75 cents.

(Elective in C).

### DEPARTMENT OF MATHEMATICS

PROFESSOR PURYEAR, PROFESSOR R. F. SMITH, ASSOCIATE PROFESSORS J. W. MITCHELL, HALPERIN, ASSISTANT PROFESSORS D. C. JONES, PORTER, COX, A. D. MARTIN, MR. FRITTS,

MR. FRARY, MR. ALBRITTON.

101, 102. Algebra. (3-0).

A rapid review of elementary topics, followed by the study of quadratic equations, the binomial theorem, variation, the progressions, complex numbers; elementary theory of equations, logarithms, limits, undetermined co-efficients.

Review of certain topics of preceding courses.

Text: College Algebra, Rietz and Crathorne. Supplementary exercises.

(Required in all four-year engineering courses and in IX, XIII; course 101, in X).

103. Plane Trigonometry. (3-0).

Measurement of angles, review of logarithms, solution of right triangles, problems of heights and distances, properties of triangles, solution of oblique triangles, geometrical applications.

Text: Plane and Spherical Trigonometry, Taylor and Puryear.

(Required in all four-year engineering courses and in IX, X, XIII).

#### 104. Analytics. (3-0).

The straight line, transformation of co-ordinates, circle, ellipse, parabola, hyperbola, graphs of trigonometric, logarithmic and expotential functions, tangents.

Review of certain topics of preceding courses.

Text: Analytic Geometry, Riggs. Supplementary exercises.

Prerequisite: Mathematics 101, 103.

(Required in all four-year engineering courses and in IX, XIII).

106. Trigonometry. (3-0). Same as course 103. (Required in X).

107. Agricultural. (3-0).

Elementary principles of arithmetic, algebra, geometry, trigonometry, with special reference to the needs of agricultural students.

Text: Mathematics for Students of Agriculture, Rasor. (Required in I).

**108.** Agricultural. (3-0).

Same as course 107.

(Required in XIV).

### 118. Solid Geometry. (3-0).

Definitions, lines and planes in space, dihedral angles, polyhedral angles, polyhedrons, the cylinder, cone and sphere.

Text: Solid Geometry, Wentworth-Smith.

(Required as an extra study of freshmen in the School of Engineering who do not present solid geometry for admission).

### 203, 204. Calculus. (5-0).

Differentiation, limits, infinitesimals, integration, maxima and minima, areas, volumes, water pressure, work, introduction to solid geom-

etry, moment of inertia, center of gravity, radius of curvature, Taylor's theorem, elementary examples of differential equations.

Review of certain topics of preceding courses. Text: Calculus, March and Wolff. Supplementary exercises. Prerequisite: Mathematics 104. (Required in III, IV, V, IX, group 2).

205. Calculus. (5-0).

A modification of courses 203, 204. Text: Calculus and Graphs, Passano. Prerequisite: Mathematics 102, 103. (Required in VI, VIII, XV).

303, 304. Calculus. Same as courses 203, 204. (Elective in X).

### DEPARTMENT OF MECHANICAL ENGINEERING

PROFESSOR FERMIER, PROFESSOR H. E. SMITH, ASSOCIATE PROFESSOR MERCER, ASSISTANT PROFESSORS HUTTON, PETERSON, MILTON, CRAWFORD, MR. CHAPPELLE, MR. DOWNARD, MR, KUNZ, MR. LAURSEN, MR. BETTIS.

101, 102. Elementary Mechanics. (1-0).

The work of this course consists of lectures, quizzes, and problems involving those principles of mechanics which are more commonly used in all branches of engineering and gives the student some contact with elementary engineering work.

Each student is required to keep a notebook for the special problems, which are numerous.

Text: Special pamphlet.

Prerequisite: Mathematics 103.

(Required in courses III, IV, V, VI, VIII, XIII, XV).

103. Woodwork. (0-3).

Shop practice in the use of the common bench tools and power machinery for working in wood, as applied to joinery, elements of construction, and cabinet making. Practice in the use of shop records, systems, etc., is also given. Special work is provided for those who have had manual training before entering.

Laboratory fee, \$1.50.

(Required in courses III, IV, V, VI, VIII, XIII, XV, M).

104. Forging. (0-3).

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

Laboratory fee, \$1.50.

(Required in courses III, IV, V, VI, VIII, XIII, XV, M).

Note.—Courses 103 and 104 together constitute a year's work, three hours a week. Students taking this work will be divided into two groups at the beginning of the first term; one group will begin with course 103 and the other with course 104. At the beginning of the second term the groups will each change to the other work.

201. Pattern Making and Foundry Work. (0-3).

Shop practice in pattern making, molding, and casting in iron, brass, etc.

Laboratory fee, \$2.00.

Prerequisite: Mechanical Engineering 103. (Required in III, V, XIII).

202. Pattern Making and Foundry Work. (0-3).

A continuation of course 201. Laboratory fee, \$1.50.

(Required in III).

205. Elementary Steam Engineering. (2-0).

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

Text: Elementary Steam Engineering, Spangler.

Prerequisite: Mathematics 103, Mechanical Engineering 101, 102. (Required in IV, VI, XIII).

206. Steam Engineering. (4-3).

An elaboration of course 205, with practice in mechanical engineering laboratory and power plant.

Laboratory fee, \$1.00.

Text: Heat Engines, Allen and Bursley. Prerequisite: Mathematics 203 or 205.

(Required in VIII).

207. Kinematics. (2-2).

Without taking account of the strength of the structure, this course takes up the study of motion, velocity ratios, comparative forces, etc., in machines and their elemental parts.

Text: Mechanism, Keown.

Prerequisite: Mathematics 104.

(Required in III).

208. Kinematics. (2-2).

The same as course 207 with specially chosen problems. (Required in VI).

209. Machine Shop. (0-3). Same as course 309. Laboratory fee, \$1.50. (Required in XV).

212. Engineering Mechanics. (3-0).

A study of pure mechanics as the foundation principles involved in the analytical solution of problems concerning the statics and dynamics of a material point and of a rigid body; with numerous numerical examples from practical engineering questions.

Prerequisite: Mathematics 203, Mechanical Engineering 101, 102. Must be preceded or accompanied by Mathematics 204. (Required in III).

214. Machine Shop Practice. (0-3).

A modification of course 309,-310. Laboratory fee, \$1.50.

(Required in V).

302. Steam Engines and Boilers. (5-0).

A study of fuels; combustion; the generation of steam; the construction, operation, care, design and testing of boilers of various types, together with the design of chimneys and other means of producing draft. Also a study of the elementary thermodynamics of heat engines, the mechanics, construction, design, operation and testing of the steam engine.

Text: Heat Engines, Allen and Bursley.

Prerequisite: Mathematics 204, Chemistry 101, 102, Physics 203, 204.

(Required in V).

303, 304. Machine Design. (0-3, 0-4).

This course consists of practice in the design of machine elements, and their proper representation by finished shop drawings.

Text: No text is required, but each student is required to have a Mark's handbook.

Prerequisite: Mathematics 204, Mechanical Engineering 212; must also be preceded or accompanied by Civil Engineering 305 and Mechanical Engineering 313.

(Required in III).

307. Kinematics. (2-2).

The same as course 207. (Required in V).

309. Machine Shop. (0-3).

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

Laboratory fee, \$1.50.

Prerequisite: Mechanical Engineering 104.

(Required in III, VI, XIII).

310. Machine Shop. (0-3).

A continuation of course 309, including also tool making and heat treatment of steel.

Laboratory fee, \$1.50.

(Required in III, XIII).

311. Carpentry and Cabinet Making. (0-3).

This course consists of the following two lines of practice:

(a) The carpentry of wood building construction, in which are included making out bills of lumber and hardware for building, laying out rafters, stairs, etc., methods of framing, inside finish, etc.

(b) Cabinet making, including wood seasoning, accurate construction in hardwood, wood finishing, making of mill bills, also a limited amount of designing of simple cabinets.

Laboratory fee, \$2.00.

Prerequisite: Mechanical Engineering 103. (Required in XIII).

313, 314. Engineering Mechanics. (3-0).

A continuation of course 212, including also dynamics of rotation, work, energy, friction, impact, etc.

(Required in III).

S17. Engineering Mechanics. (4-0).
A modification of courses 212, 313, 314. (Required in V).

319. Engines and Boilers. (4-0).

A modification of course 302, with the same prerequisites and text. (Required in III).

320. Thermodynamics. (4-0).

This course embraces a study of the effects of heat upon gases, and the application of thermodynamic laws and principles to the steam engine, gas engine, hot-air engine, injectors, calorimeters, etc., together with a study of heat efficiencies of these machines and instruments.

Text: Applied Thermodynamics for Engineers, Ellis.

Prerequisite: Mechanical Engineering 319.

(Required in III).

#### 403, 404. Engineering Laboratory. (0-4).

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

In addition to the work with the apparatus, the students will be expected to make calculations and written reports on the investigations and the results obtained.

Laboratory fee, \$1.00 each term.

Prerequisite: Mechanical Engineering 319, 320. (Required in III).

#### 407. Refrigeration. (2-0).

(Required in III, group 1).

### 410. Gas Engines. (3-0).

The application of the principles of thermodynamics to the design of gas engines. Also a study of the different cycles, methods of governing, and some details of design construction, operation and care of various types of gas engines and other internal combustion motors.

Prerequisite: Mechanical Engineering 407.

(Required in III).

### 412. History and Biography. (3-0).

A study of the lives of men who have been contributors to engineering development. Also a study of the history of the development of appliances and invention in mechanical engineering.

Lectures and reference reading are the sources of material for this course, for which no text-book is required.

Prerequisite: Senior classification.

(Required in III).

#### 414. Steam Turbines. (2-0).

A study of the types and designs of steam turbines, their efficiencies and their operation.

Text: Steam Turbines, Moyer. Prerequisite: Mechanical Engineering 320. (Required in III, group 1).

415, 416. Engineering Laboratory. (0-3).

A modification of course 403, 404.

Laboratory fee, \$1.00 each term.

(Required in V).

417, 418. Power Plants and Equipment. (2-4).

A study of the design of power plants, and their equipment is taken up in this course. Choice and arrangement of equipment are studied from the standpoint of economy of material and labor, as well as from the standpoint of general efficiency. Text: Engineering of Power Plants, Fernald and Orrok. Prerequisite: Mechanical Engineering 320. (Required in III, group 1).

### 419, 420. Industrial Engineering. (3-2).

A study of the industrial plant, including building and equipment; from the standpoint of health of workers as well as from the standpoint of suitability for the industrial processes involved.

Lectures and collateral reading are the chief sources in this course. Practice will include reports, also detailed sketches and drawings covering definitely chosen conditions.

Prerequisite: Senior classification.

(Required in III, group 2).

### 421, 422. Methods and Management. (2-0).

A study of the general principles of shop management and shop methods as used in plants and factories whose output is largely the product of machine tools and similar equipment.

(Required in III, group 2).

#### 423, 424. Transportation. (2-0).

A study of general means of transportation from the standpoint of commerce as well as the conveying of materials in industrial plants and in construction work.

Lectures and collateral reading are the sources of subject matter for this course.

Prerequisite: Senior classification.

(Required in III, group 3).

425, 426. Railway Mechanical Engineering. (2-4).

A study of types and the design of railway rolling stock and a study of locomotive performance.

Prerequisite: Mechanical Engineering 319.

Laboratory fee, \$1.50 each term.

(Required in III, group 3).

Note.—Courses 423, 424, 425, 426 are not at present available.

FOR STUDENTS IN SHORT COURSES.

### 21, 22. Power and Heat. (4-0).

A study of shop mathematics, elementary mechanics, and the fundamentals of fuels, and heat as a source of power.

(Required in H, N).

25. Forging. (0-4).

A modification of course 104.

Laboratory fee, \$1.50.

(Required in H, N).

- 26. Woodwork. (0-4).
  A modification of course 103.
  Laboratory fee, \$1.50.
  (Required in H, N).
- 61, 62. Foundry and Machine Shop. (0-3).
  A modification of course 309, 310.
  Laboratory fee, \$1.50 each term.
  Prerequisite: Mechanical Engineering 25, 26.
  (Required in H, N).

63, 64. Engineering Laboratory. (0-3). A modification of course 403, 404. Laboratory fee, \$1.00 each term. (Required in N).

- 65, 66. Shop Methods. (3-2). (Required in N, group 2).
- 71, 72. Foundry and Machine Shop. (0-5).
  A modification of courses 309, 310, and 201.
  Laboratory fee, \$2.00 each term.
  (Required in N).

75, 76. Steam Engines and Boilers. (4-0).

A modification of course 302, with special emphasis on the practical work.

Prerequisite: Mechanical Engineering 21, 22. (Required in H, N).

### DEPARTMENT OF MILITARY SCIENCE AND TACTICS

PROFESSOR: MAJOR DOUGHERTY. PROFESSORS: MAJOR MORRIS, MAJOR Russell, Major Davis, Captain Kurtz. Assistant Professors: Captain deRohan, Captain Lawrence, Captain Fitzgerald, Captain Tuttle, Captain Tarbox, Captain Wilson, First Lieutenant Searight, First Lieutenant Ruth.

### INFANTRY UNIT.

ASSISTANT PROFESSOR W. H. H. MORRIS, JR., Major of Infantry. ASSISTANT PROFESSOR F. J. DEROHAN, Captain, Infantry. ASSISTANT PROFESSOR J. O. TARBOX, Captain, Infantry. ASSISTANT PROFESSOR A. L. TUTTLE, Captain, Infantry. ASSISTANT PROFESSOR H. S. RUTH, First Lieutenant, Infantry.

#### 101. (1-2).

(a) Theoretical: Military organization; military courtesy and discipline; infantry drill.

(b) Practical: Physical training; infantry drill.

102. (1-2).

(a) Theoretical: Infantry drill; guard duty; personal hygiene, sanitation and first aid; military ceremonies.

(b) Practical: Physical training; infantry drill; guard duty; bayonet exercises; preliminary target practice; gallery practice; rifle practice; military ceremonies; field maneuvers.

201. (1-2).

(a) Theoretical: Infantry drill (school of the company); military sketching and map reading.

(b) Practical: Infantry drill; physical training; machine guns; automatic rifles.

202. (1-2).

(a) Theoretical: Military sketching and map reading; minor tactics for a non-commissioned officer.

(b) Practical: Military sketching; minor tactics; range practice; maneuvers.

301. (3-2).

(a) Theoretical: Minor tactics for a lieutenant; field engineering.

(b) Practical: Infantry drill (act as a line); physical training; pistol practice; field engineering; hand and rifle grenades.

302. (3-2).

(a) Theoretical: Minor tactics continued for a lieutenant; field engineering continued.

(b) Practical: Infantry drill (act as a lieutenant); maneuvers (act as a lieutenant); field engineering; one-pound gun; trench mortar.

401. (3-2).

(a) Theoretical: Minor tactics for a captain and field officer; military law.

(b) Practical: Minor tactics (act as a captain and field officer); physical training; musketry; infantry drill (act as a captain or field officer).

402. (3-2).

(a) Theoretical: Minor tactics for a captain and field officer; military history and policy; military administration.

(b) Practical: Minor tactics (act as a captain and field officer); musketry; infantry drill (act as a captain or field officer).

### ARTILLERY UNIT.

### PROFESSOR: MAJOR L. R. DOUGHERTY.

### Assistant Professors: Captain R. W. Wilson, First Lieutenant H. F. Searight.

103. (1-2).

(a) Theoretical: Field artillery drill regulations and field gunnery. The elements of the trajectory and the calculation of the same, gunners' instruction, calculation of firing data.

(b) Practical: School of the soldier, school of the squad, battery foot drill, standing gun drill, the firing battery; interior guard duty; manual of the pistol.

104. (1-2).

(a) Theoretical: Field artillery ordnance. Guns, ammunition, sights, fire control instruments, telephones, projectors, etc., types, construction, mechanical principles, designs, use and care.

(b) Practical: Use and care of individual equipment. Cannoneers' instruction in the service of the piece, and preparation for gunners' examination.

203. (1-2).

(a) Theoretical: Military science. Artillery trucks and tractors, gas engines, design, operation and care.
(b) Practical: Equitation, the soldier mounted. Care and man-

(b) Practical: Equitation, the soldier mounted. Care and management of the horse.

204. (1-2).

(a) Theoretical: Field artillery topography and reconnoissance.

(b) Practical: Draft and driving, the battery mounted. Occupation of position.

303. (3-2).

(a) Theoretical: Field artillery gunnery and firing.

(b) Practical: The battery mounted. Hippology and stable management. Conditioning and training of the artillery horse.

304. (3-2).

(a) Theoretical: Field artillery tactics. Organization, communication and field engineering.

(b) Practical: Smoke bomb practice. Reconnoissance.

403. (3-2).

(a) Theoretical: Military history and policy of the United States. Minor tactics and map maneuvers.

(b) Practical: Duties of the officers of field artillery in the battery, battalion and regiment, mounted. Smoke bomb practice. Training as instructors.

404. (3-2).

(a) Theoretical: Military law. Administration and army paper work.

(b) Practical: Same as 403 (b).

### SIGNAL CORPS UNIT.

### PROFESSOR: CAPTAIN LAWRENCE A. KURTZ, Signal Corps.

105. (1-2).

(a) Theoretical: Organization of army, hygiene, first aid, military courtesy, interior guard duty, infantry drills, automatic pistol.

(b) Practical: Drill, visual signalling.

### 106. (1-2).

(a) Theoretical: Lectures in military and commercial telephone line construction.

(b) Practical: Drill, international code, message sending by telegraph, telegraph operating, commercial and military telephone line construction.

## 205, 206. (1-2).

(a) Theoretical: Lectures in army organization, lines of communication, military telephones, map reading and making and technical equipment used by Signal Corps.

(b) Practical: Drill, projector signalling, visual signalling, field buzzer, telephones, military map making, construction of telephone lines, operation of switchboards, radio telegraph operation in the field.

### 305, 306. (1-2, 0-2).

(a) Theoretical: Drill, minor tactics of line troop, field engineering, organization and tactics of all arms to include division signal tactics, military law and rules of land warfare, message centers, codes and ciphers.

(b) Practical: Putting the above theoretical work into field practice. In addition to the above the student must complete Electrical Engineering 309 and 310.

(Elective in V).

### 405, 406. (0-2, 1-2).

(a) Theoretical: Military history and policy of the United States, administration, hippology, staff organization and duties, telephone net construction.

(b) Practical: Handling of organizations in practical signal corps field duty, technical and tactical operation of radio telegraph and technical operation of radio telegraph and telephone ground radio, telephones.

In addition to the above the student must complete Electrical Engineering 409 and 410.

(Elective in V).

### CAVALRY UNIT.

### PROFESSOR: MAJOR J. F. DAVIS, Cavalry. Assistant Professor: Captain J. O. Lawrence, Cavalry. Assistant Professor: Captain H. J. Fitzgerald, Cavalry.

#### 107. (1-2).

(a) Theoretical: Organization and administration; military hygiene; first aid; sanitation; military courtesy and customs; cavalry drill regulations to include the school of the troop; interior guard duty; signalling; care of animals and equipment.

(b) Practical: Organization of a unit; exercise in first aid; camp site selection and expedients, sand table; performance of guard duty; signalling drills; cavalry drill to include school of the troop; equitation; care of animals and equipment; physical training.

### 108. (1-2).

(a) Theoretical: Cavalry drill regulations to include school of the troop; ceremonies and inspections; cavalry weapons, pistol, saber, rifle; the cavalry pack; minor tactics; patrols; message and reports; the theory of equitation; preliminary range instruction.

(b) Practical: Cavalry drill to include the school of the troop; ceremonies and inspections; preliminary range instruction; gallery practice; range practice; the pistol, dismounted; saber exercise; patroling, mounted and dismounted; message carrying and reports; equitation and jumping; physical training.

#### 207. (1-2).

(a) Theoretical: Map reading and military sketching; cavalry drill, close and extended order, including school of the troop; ceremonies and inspections; cavalry combat; development and employment of cavalry; march discipline and routine.

(b) Practical: Instructors in 107 (b), 108 (b); problems in map reading; sketching; road sketch; outpost sketch; position sketch; physical training; park riding; cavalry drill to include school of the troop; equitation and jumping; ceremonies and inspections; cavalry combat (troop); practice marches.

#### 208. (1-2).

(a) Theoretical: The cavalry pack, dismounted; cavalry weapons, rifle, pistol, automatic rifle, machine gun; cavalry drill to include school of the troop; equitation and jumping; minor tactics; covering detachments; advance flank rear guards; outposts.

(b) Practical: Instructors in 107 (b), 108 (b); cavalry drill to include school of the troop; ceremonies and inspections; cavalry com-

bat; equitation and jumping; practice marches; cavalry pack, mounted; preliminary instruction in marksmanship, gallery and range practice; the automatic rifle and machine guns; minor tactics, tactical walks, tactical exercises, physical training.

## 307. (3-2).

(a) Theoretical: Field engineering; park riding; cavalry drill to include school of the regiment; cavalry combat, squadron and higher units; hand and rifle grenades; trench mortar and one pounder; light artillery; equitation and jumping; ceremonies and inspection.

(b) Practical: Instructors in 107 (b), 108 (b), 207 (b), 208 (b); cavalry to include the school of the troop; military field engineering problems; cavalry combat; tactical exercises; tactical ride; hand and rifle grenades; trench mortar and one pounder; ceremonies and inspections; equitation and jumping.

## 308. (3-2).

(a) Theoretical: Principles in musketry; hippology; selection and care of animals; horseshoeing; cavalry drill to include the school of the troop; cavalry combat; tactical rides and exercises; equitation and jumping.

(b) Practical: Instructors in 107 (b), 108 (b), 207 (b), 208 (b); practical packing; selection and care of animals; horseshoeing; cavalry drill to include school of the troop; cavalry combat; Tactical Rides and exercises; equitation and jumping.

## 407. (3-2).

(a) Theoretical: Military history and policy of the United States; cavalry drill, including school of the regiment; military law and rules and land warfare; equitation and jumping; ceremonies and inspections.

(b) Practical: Instructors in 107 (b), 108 (b), 207 (b), 208 (b); cavalry drill to include school of the troop; cavalry combat; tactical walks and exercises; park riding; practical packing; ceremonies and inspections.

## 408. (3-2).

(a) Theoretical: Minor tactics; field service regulations; map maneuvers, relief maps, sand table problems; administration; packing and transportation; cavalry drill, including school of the regiment; field exercises; advanced equitation.

(b) Practical: Instructors in 107 (b), 108 (b), 207 (b), 208 (b); leaders in tactical exercises; tactical leaders; participation in tactical exercises as leaders; cavalry combat; ceremonies and inspections; cavalry drill to include school of the troop; advanced equitation; practical packing.

#### AIR SERVICE UNIT.

#### PROFESSOR: C. W. RUSSELL, Major, Air Service.

### 109, 110. Elementary Subjects of Military Training. (1-2).

(a) Theoretical: Organization and administration of company and squadron; duties of commanders; military hygiene; first aid and sanitation; military courtesies and customs of the service; interior guard duty; infantry drill; nomenclature, care and handling of pistol and rifle; communications, visual signalling ar indexed; elementary electricity and radio; construction and oper on of telephone lines; history of aeronautics; employment of air service, air service organization.

(b) Practical: Organizing the unit, assignment of leaders; first aid demonstrations; performance of guard duty; infantry drill; rifle and pistol practice; visual signalling and buzzer.

#### 209, 210. (1-2).

(a) Theoretical: Military sketching and map reading; infantry drill, principles of leadership; air service weapons, automatic rifle and aerial machine guns; aerial sights and principles of aerial gunnery; synchronized gears; minor tactics, patroling maneuvers, messages and reports, outposts and covering detachments; communications, radio operations section; assembly of radio sets.

(b) Practical: Map sketching, infantry drill; machine gun, rifle and pistol firing; nomenclature and stripping of machine guns; problems in minor tactics; radio.

### 309, 310. (3-2).

(a) Theoretical: Field engineering, construction of trenches and obstacles; minor tactics, offensive and defensive, conduct of small units; artiliery and infantry liason; radio aerial photography, types of cameras, interpretation of aerial photographs, map making from aerial photographs; aeronautical engines, principles of engines, carburetors, ignition, lubrication, cooling, trouble shooting, types of engines; aerial gunnery; aerial bombing.

(b) Practical: Trench construction; map maneuvers; radio practice; construction of mosaic from aerial photographs; assembling aeronautical engines, engine running.

### *409*, *410*. (*3*-2).

(a) Theoretical: Military history and policy of the United States; development of aeronautics; military law and rules of land warfare; administration of the squadron; advanced radio communications; aerial navigation and meteorology; air service organization, operations, aerial tactics, bombardment, pursuit and attack duties of air service officers; methods of teaching flying, airplanes, theory of flight, nomenclature, rigging, repair of machines; airplane instruments; types of airplanes.

(b) Practical: Radio communications; aerial navigation; rigging, repair of machines, engine running.

### MODERN LANGUAGES.

#### FOR STUDENTS IN SHORT COURSES.

Infantry.

11, 12. (1-2). Same as courses 101, 102.

51, 52. (1-2).

Same as courses 201, 202.

Field Artillery.

13, 14. (1-2). Same as courses 103, 104.

53, 54. (1-2). Same as courses 203, 204.

Cavalry.

17, 18. (1-2). Same as courses 107, 108.

57, 58. (1-2).

Same as courses 207, 208.

#### DEPARTMENT OF MODERN LANGUAGES

PROFESSOR CAMPBELL, ASSISTANT PROFESSOR WOODFORD.

In beginning courses a thorough drill in pronunciation, the essentials of grammar, and colloquial exercises is given through daily oral and written exercises. The reading of simple texts is taken up as early as possible.

The work of the advanced courses consists in the reading of selected texts and magazines, with incidental grammar review and drill in the use of colloquial idioms. Short dictation exercises are frequently given. Special stress is laid upon sight reading. Parallel reading of from 150 to 300 pages of selected prose works is required. In French and German, the reading is gradually adapted to the scientific work of other departments; the texts read in Spanish are literary and commercial.

The work in modern language is elective in all four-year courses, as shown under the several curricula, except in course IX, group 1.

*311, 312.* (*3*-0).

Grammar and easy reading, (Required in IX, group 1).

313, 314. German. (3-0).

Grammar and easy reading.

315, 316. Spanish. (3-0). Grammar and easy reading.

421, 422. French. (3-0).

Reading of scientific and other texts. Parallel reading. (Required in IX, group 1).

423, 424. German. (3-0).

Reading of scientific and other texts. Parallel reading.

425, 426. Spanish. (3-0).

Reading of selected texts; composition; conversation. Parallel reading.

426b. Spanish. (3-0).

Commercial Spanish; reading of commercial and technical texts and periodicals; social and commercial correspondence.

Prerequisite: Course 425 or equivalent.

Note.—Courses 211, 212, 213, 214, 215, 216, elective in course X, are the same as 311, 312, 313, 314, 315, 316, respectively.

#### DEPARTMENT OF PHYSICS

PROFESSOR SILVEY, ASSISTANT PROFESSORS VEZEY, LACKEY, SANDERS, MR. RAY, MR. ROBERTS, MR. ALBRITTON.

103, 104. College Physics. (3-2).

A general course in physics for students in general science courses and those preparing to enter a medical school.

This course includes the mechanics of solids, liquids and gases; and the phenomena of heat, light, sound, electricity and magnetism. Instruction is given by recitations, quizzes, problems and demonstrated lectures. Emphasis is laid upon the fundamental principles rather than the mathematical processes involved.

The practice includes about thirty experiments in the subjects named above.

Laboratory fee, 50 cents each term.

Text: Anderson's Physics, or equivalent.

Prerequisite: See entrance requirements.

(Elective in X).

### 111, 112. Agricultural Physics. (2-2).

This course includes the phenomena of mechanics, heat, magnetism, current electricity and light that have application in the study of agriculture and agricultural engineering. Instruction is given by recitation, quizzes, problems and demonstrated lectures. PHYSICS.

The practice includes measurements involving the laws of concurrent forces, moments, simple machines, specific gravity, calorimetry, current electricity, and the use of lenses in the common optical instruments.

Laboratory fee, 50 cents each term.

(Required in XI, and of students of agriculture not presenting physics for entrance).

### 201, 202. General Physics. (3-3).

A course of selected topics in mechanics, properties of matter, sound, light, electricity and magnetism for students of general science who elect physics as a major. The work is essentially descriptive, but the simpler mathematical applications involving algebra, trigonometry and geometry are studied.

Laboratory fee, \$2.00 each term.

Prerequisite: Physics 103, 104, and Mathematics 101, 106. (Elective in X).

### 203, 204. General. (3-3).

A general course in mechanics, heat, light, electricity and magnetism for engineering students.

In this course particular stress is laid on the derivation of the various formulas necessary for a thorough understanding of the mathematical relations existing in physical determinations. Much emphasis is placed on practical problems furnished by the instructors.

The practice includes about thirty experiments in the subjects named above. The work is, in general, quantitative.

Laboratory fee, \$1.00 each term.

Text: Reed and Guthe's College Physics.

Prerequisite: Mathematics 101, 103. (See Entrance Requirements). (Required in all engineering courses except V).

#### 207, 208. General. (3-2).

This course is identical with course 203, 204, with the omission of electricity and magnetism.

Laboratory fee, \$1.00 each term.

Prerequisite: Mathematics 101, 103. (See Entrance Requirements). (Required in V).

#### 301, 302. Heat and Properties of Matter. (3-3).

A course for students in undergraduate study or for graduate students of other departments who may take this course as partial fulfillment of a minor in physics.

This course includes a discussion of universal gravitation, elasticity, surface tension, diffusion, viscosity, mechanics of fluids, laws of heat transfer, kinetic theory, critical points, isothermal and adiabatic changes and the thermodynamics of changes of state and radiation.

The work is more descriptive than mathematical, but ample opportunity is offered to study the application of the calculus to physics. Laboratory fee, \$2.00 each term.

Text: Properties of Matter; Heat, Poynting and Thompson, or equivalents.

Prerequisite: Physics 201, 202, 203, 204 or 207, 208, and Mathematics 203, 204.

(Elective in X).

### 305. Light. (2-0).

A course for students in undergraduate study or for graduate students of other departments who may take this course in partial fulfillment of the requirement of a minor in physics.

This course includes a discussion of the wave theory of light, optical instruments, dispersion, spectroscopy, aberrations, refraction, interference, diffraction, polarization, double refraction and theories of refraction and reflection.

The treatment is non-mathematical.

Text: Edser's Light for Students, or its equivalent.

Prerequisite: Physics 201, 202, 204 or 207.

(Elective in X).

#### 307, 308. Experimental Physics. (0-4).

A laboratory practice course to supplement any of the courses in theoretical physics.

The experiments performed are illustrative of the theory being discussed in the theoretical course. It is intended that this course will develop laboratory technique preparatory to research work.

Manual: Watson's Practical Physics, or its equivalent.

This course must be preceded by, or taken in parallel with one of the courses in theoretical physics.

Laboratory fee, \$2.00 each term.

(Elective in X).

401, 402. Optics; Electricity and Magnetism. (3-3).

A course for physics students in undergraduate study or for graduate students of other departments who may take this course as a partial fulfillment of a minor in physics. This course includes a discussion of periodic motion, wave motion, the nature and propagation of light, interference, diffraction, theory of optical instruments, polarization, magnetism, magnetic induction and potential, current electricity, electrostatic induction and potential, electromotive forces, thermal effects, photoelectricity, electro-magnetic induction and electro-magnetic theory.

Laboratory fee, \$2.00 each term.

Texts: Optics, The Theory of Optics, Part I (Schuster), or equivalent; Magnetism and Electricity (Poynting and Thomson), or equivalent.

Prerequisite: Physics 201, 202 or 203, 204 and Mathematics 203, 204.

(Elective in X).

403, 404. Kinetic Theory; Electron Theory. (3-0).

This course includes a study of gas pressure, speeds of gaseous molecules, Boyle's law, determination of the gas constant, the law of Gal-Lussac, Graham's law, law of diffusion, the mean free path, viscosity, Maxwell's distribution law, the phenomenon of conductivity of electricity through gases, mobility and diffusion of gaseous ions, measurement of the elementary charge, ratio of charge to mass of ions, positive ions, photo-electric action, Brownian movements.

Prerequisite: Physics 301, 302 and Mathematics 203, 204. (Elective in X).

#### FOR STUDENTS IN SHORT COURSES.

#### 11, 12. Elementary. (2-2).

Lectures, recitations, problems, and demonstrations in elementary mechanics, heat, sound, light, electricity and magnetism. The nature of the theory is indicated by the outline of the practice.

The practice includes measurements of precision with vernier and micrometer calipers and balances; curve plotting; accurate determination of length, volumes, densities, forces, moments, stress, expansion, heat exchange, refraction and reflection of light by various forms of lenses and mirrors; velocity of sound and the laws of vibrating strings; measurements of voltage, current, and resistance.

Multiple sets of apparatus permit laboratory experiments to be run parallel to the lectures and recitations.

Laboratory fee, 50 cents each term.

Text: Practical Physics, Millikan and Gale.

(See Entrance Requirements).

(Required in H, N).

#### DEPARTMENT OF RURAL SOCIOLOGY.

### PROFESSOR GARNETT.

#### 201. Social Origins and Social Evolution. (2-0).

This course traces the origin and development of the more important social and industrial customs, beliefs, practices and institutions. The social responsibility of institutions and the consequences of their failure to measure up to their obligations or to adapt themselves to changed conditions are also considered.

Text: Introduction to the Study of Social Evolution and Social Economy, Chapin.

(Elective in XIV, group 3).

#### 310. Rural Organizations. (2-2).

After analyzing the community interest needing organized effort economic, civic, educational, social and religious—and determining the

scale on which it is desirable to deal with each, a study is made of the historic development, activities, relationships, and plan of work of the various types of organizations found in different parts of the country. The principles basic to successful organization are then formulated. Methods of developing organization leaders and gaining community support are outlined. Especial attention is given to the organization problems of the county agent, the agricultural teacher and other community workers. Each student is expected to work out detailed plans for some type of organization in which he is interested.

Text: To be selected.

(Required in XIV).

#### 311. Social Psychology. (3-0).

The factors effecting group behavior together with methods of social control constitute the main theme of this course. The forces and influences which determine the mental attitudes of country people are analyzed. The connection between a good understanding of the social mind and successful organizational effort is shown and methods of dealing with the problems involved are developed. The many questions related to public opinion are given attention.

Text: Social Psychology and Social Control, Ross. (Required in XIV).

#### 312. General Sociology. (3-0).

This course analyzes the forces and processes determining the complexion of modern society; studies the principles basic to desirable social policies, and considers in detail some of the more outstanding presentday social problems.

Text: Principles of Sociology, Ross.

(Required in XIV, group 3).

404. Agricultural Organization. (2-2).

Described in the 45th Catalogue.

(Required in XIV, sessions 1922-23, 1923-24).

### 407. Rural Sociology. (2-2).

This course first analyzes the conditions, forces and agencies influencing the life of the country dweller and the country community. A detailed study is then made of a number of special problems related to the social side of country life, such as: population questions; cityward drift; town and country relationships; rural health problems; recreation; rural leadership; community organizations, and community planning. Attention is also given to the social problems connected with the home; the school; the church; the press and other social institutions.

Text: To be selected.

(Required in XIV).

408. Rural Sociology. (2-2). Same as course 407. (Required in I).

### 409. The Family. (2-0).

After considering the importance of the family as a social institution and noting the outstanding problems of the rural home, the influences tending to undermine family life and constructive measures for overcoming these influences are studied. Problems of child welfare are emphasized.

Text: To be selected.

(Elective in XIV, group 3).

410. Community Development and Community Planning. (1-4).

In this course each student is expected to select some area in which he is interested (community, county or town) and make an analysis of all obtainable facts regarding the existing situation. Then, after familiarizing himself with the best examples of community development in the country, with the actual situation in mind, he is expected to work out a long time program for promoting the best community life in the area chosen. Practical, workable plans for putting his program into operation are required. Some field work may be called for.

Text: To be selected.

(Required in XIV, group 3).

411. Social Psychology. (3-0).
Same as course 311.
(Required in X).

412. General Sociology. (3-0). Same as course 312. (Required in X).

413. Social Pathology. (2-0).

In this course questions causing pathological social conditions are considered. Measures of dealing with and caring for unsocial and dependent groups are studied. The whole subject is approached from the rural viewpoint.

Text: Poverty and Dependence, Gillin.

(Elective in XIV, group 3).

# 414. Group Relationships. (2-0).

This course studies the problems involved in the relationships of various social groups, such as: the landlord and tenant; the white and

the negro; the foreign born and native; town and country dwellers. The relationships of different types of organization groups will also be considered.

### Text: To be selected.

(Required in XIV, group 3).

### 415. Agricultural Journalism. (2-2).

The objectives of this course are to familiarize the student with the best principles of newspaper writing and especially the preparation of material for agricultural papers and country weeklies. The part a county paper should play in community development is stressed.

Text: To be selected.

(Required in XIV, group 3).

### 416. Agricultural Journalism. (1-4).

A continuation of course 415. In this course additional practice in the preparation of articles for agricultural and country papers is given. News campaigns for special objectives are planned. The business side of conducting a paper receives attention.

Courses 415 and 416 to be given in co-operation with the English Department and the agricultural editors of the Extension Division and the Experiment Station.

(Elective in XIV, group 3).

### FOR GRADUATES.

501, 502. Advanced Rural Sociology. (3-4). Major.

In this course each student selects some special rural social problem for intensive study. Methods of social investigation receive attention. Some field work is required.

501a, 502a. Advanced Rural Sociology. (2-4). Minor. A modification of course 501, 502.

503, 504. Country Life Tendencies. (3-4). Major.

In this course a critical study is made of some of the most important tendencies now apparent in country life.

503a, 504a. Country Life Tendencies. (2-4). Minor.

A modification of course 503, 504.

#### DEPARTMENT OF TEXTILE ENGINEERING.

### PROFESSOR BAGLEY, ASSOCIATE PROFESSOR DOWD, ASSISTANT PROFESSOR LICHTE.

101, 102. Cotton Classing. (0-2).

This course includes practice in grading and stapling cotton, the methods of handling the crop from the field to the mill, and other subjects of general interest to a cotton student are presented in lecture form.

Laboratory fee, 50 cents each term. (Required in I, XII, C).

Practice in operating plain looms. (Required in VI).

### 206. Yarn Manufacture. (0-3).

Practice in operation of the machinery used in the manufacture of cotton yarns.

(Required in VI).

### 301, 302. Yarn Manufacture. (4-3, 3-2).

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.

Texts: Cotton Mill Processes and Calculations, Tomkins; International Library of Technology, Vol. 76.

(Required in VI).

### 303, 304. Fabric Designing. (0-3).

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.

(Required in VI).

### 305, 306. Weaving. (3-3, 0-4).

Continuation of course 204, together with fixing dobbies and Jacquards and the taking to pieces and rebuilding of looms.

<sup>207.</sup> Weaving. (0-3).

Text: International Library of Technology, Vol. 80. Prerequisite: Textile Engineering 204. (Required in VI).

#### 401, 402. Yarn Manufacture. (0-2, 3-3).

Recitations and lectures; a continuation and more exhaustive treatment of the subjects of course 301, 302. 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 lay 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.

Text: International Library of Technology, Vol. 77. Prerequisite: Textile Engineering 302.

(Demained in WI)

(Required in VI).

404. Fabric Analysis. (1-0).

Dissection of small samples with a view of reproducing them.

Prerequisite: Textile Engineering 303.

(Required in VI).

405. Sizing. (3-0).

This course includes a thorough study of all materials used in sizing cotton yarns. The best methods of testing for adulterants commonly found in these materials are given, as are also the most modern methods of their application to the yarns. The machinery and its operation are carefully studied.

Text: Chemistry and Practice of Sizing, Bean.

(Required in VI).

407, 408. Weaving. (2-2, 0-4).

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

Prerequisite: Textile Engineering 305, 306.

(Required in VI).

#### 410. Mill Management. (3-0).

Lectures and recitations on 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.

Texts: International Library of Technology, Vol. 78; The Cotton Manufacturing Industry of the United States, Copeland.

(Required in VI).

412. Magazine Review. (1-0).

Students will report in class on articles assigned them in the textile magazines.

(Required in VI).

413. Cotton Classing. (1-2).

Recitation and lecture on classification and stapling of cotton, buying spot cotton, papers used in the cotton trade and cotton exchanges. Laboratory fee, 50 cents.

Text: Cotton Trade Guide and Student's Manual, Miller. (Required in VI, XII).

415, 416. Fabric Designing. (0-3).
A continuation of course 304.
Prerequisite: Textile Engineering 304.
(Required in VI).

#### FOR STUDENTS IN SHORT COURSES.

- 11, 12. Designing. (0-3).
  A modification of course 303, 304. (Required in H).
- 13. Yarn Manufacture. (4-3).
  A modification of course 201, 202. (Required in H).
- 16. Weaving. (3-3).
  A modification of course 207. (Required in H).
- 51, 52. Yarn Manufacture. (3-2, 3-4). A modification of course 401, 402. (Required in H).
- 53, 54. Designing. (0-3).
  A modification of course 415, 416. (Required in H).
- 55, 56. Weaving. (3-2, 3-4). A modification of course 407, 408. (Required in H).

58. Fabric Analysis. (1-0).

Dissection of small samples with a view to the reproduction of fabric; Jacquard designing, cutting cards from original designs.

(Required in H).

61. Cotton Classing. (1-2).
Same as course 413.
Laboratory fee, 50 cents.
(Required in H).

### DEPARTMENT OF VETERINARY ANATOMY.

PROFESSOR FRANCIS.

111. Anatomy of the Domestic Animals. (3-6). This course embraces a careful study of the bones, joints and muscles. Text: Anatomy of Domestic Animals, Sisson. Laboratory fee, \$4.00. (Required in XI).

112. Anatomy of the Domestic Animals. (3-6). During this term the thoracic and abdominal viscera are studied. Laboratory fee, \$4.00. Text: Anatomy of Domestic Animals, Sisson. (Required in XI).

211. Anatomy of the Domestic Animals. (3-6).

This course includes a dissection of the circulatory system, the nervous system and the organs of special sense.

Text: Anatomy of the Domestic Animals, Sisson. (Required in XI).

213. Histology and Embryology. (2-4).

A lecture and laboratory course.

Laboratory fee, \$4.00.

Texts: Normal Histology, Stohr; Embryology of the Chick and Pig, Prentiss.

(Required in XI).

302. Anatomy and Physiology of Domestic Animals. (2-2).

This course is intended as an introduction to the study of veterinary medicine. It treats the fundamental processes of animal nutrition in detail, so that each student may be prepared to meet the problems that arise in the economic production of beef, pork, and dairy products.

Reference books: Physiology of Domestic Animals, Smith; Veterinary Anatomy, Sisson.

Laboratory fee, \$1.50. (Required in I, group 5).

**\$12.** Topographical Anatomy. (0-6). Prerequisite: Courses 111, 112, 211.

Text: Topographical Dissection Guide, Stewart. (Elective).

#### FOR GRADUATES.

511a, 512a. Veterinary Anatomy. (2-4). Minor.

#### FOR STUDENTS IN SHORT COURSES.

52. Animal Diseases. (3-2).

A popular course on the common diseases of animals on the farm. Laboratory fee, \$1.50.

Text: Principles of Veterinary Science, Hadley. (Elective in C).

#### DEPARTMENT OF VETERINARY MEDICINE AND SURGERY.

PROFESSOR MARSTELLER, ASSOCIATE PROFESSOR LENERT.

305. Animal Diseases. (3-2).

This course is designed to give the student a working knowledge of the structure, growth and diseases of domestic animals. The anatomy and physiology of animals will be reviewed, then the remainder of the term devoted to diseases. It will be especially useful to teachers of rural schools.

Text: Principles of Veterinary Science, Hadley. (Required in XII).

351. Non-infectious Diseases. (3-0).

This course consists of lectures and demonstrations on physical diagnosis.

(Required in XI).

352. Non-infectious Diseases. (3-0).

In this course instruction is given on diseases of the digestive, circulatory, respiratory and urinary organs.

(Required in XI).

361. General Surgery. (3-0).

In this course instruction is given in the principles of surgery, restraint of domestic animals, surgical diagnosis, surgical exercises and soundness.

(Required in XI).

362. General Surgery. (3-0).

This course is a continuation of General Surgery 361. (Required in XI).

371. Clinics. (0-7).

372. Clinics. (0-12).

471. Clinics. (0-7).

### 472. Clinics. (0-7).

Hospital service is required of all students. They must give daily attention to cases assigned. In addition to hospital duty, laboratory diagnosis and post-mortem examination are required whenever necessary. An ambulatory clinic is maintained. Students will, as occasion may require, make trips to other parts of the State to observe and study outbreaks of diseases. Cases in clinic are treated under hospital conditions. When necessary they are held for observation and study; thus the student is given an opportunity to see the entire course of these diseases and the results of treatment. About fifteen hundred cases of non-infectious diseases, infectious diseases, and surgical diseases of animals and fowls are treated in clinic each year.

(Required in XI).

### 403. Animal Diseases. (3-2).

A discussion of common infectious and non-infectious diseases of domestic animals.

Text: Veterinary Medicine, Vols. 1, 2, 3, 4, 5, Law. Prerequisite: Veterinary Anatomy 304. (Required in I, group 5).

451. Diseases of Small Animals and Fowls. (3-0).

In this course special attention is given to non-infectious and infectious diseases in pet animals and domestic fowls.

(Required in XI).

#### 452. Practice of Veterinary Medicine and Jurisprudence. (3-0).

The aim of this course is to acquaint the student with general business methods and State and national laws relating to the practice of veterinary medicine.

(Required in XI).

#### 453. Infectious Diseases. (3-0).

This course involves the study of the symptoms, treatment and control of infectious diseases.

(Required in XI).

### 461. Obstetrics. (2-0).

This course treats of accidents of breeding, diseases incidental to pregnancy, parturition and post-partum conditions. Attention is also given to diseases of the newly born.

(Required in XI).

#### 462. Operative Surgery. (3-4).

In this course instruction is given in castrating, spaying, dentistry, lameness, shoeing. Surgical exercises are required.

Laboratory fee, \$5.00.

(Required in XI).

#### FOR GRADUATES.

501a, 502a. Special Surgery. (2-4). Minor.

This course will deal with problems of surgical conditions, surgical pathology, surgical technique and sterility of animals.

Laboratory fee, \$10 each term.

#### DEPARTMENT OF VETERINARY PATHOLOGY.

ASSOCIATE PROFESSOR PRICE.

242. General Pathology. (3-2).

This course deals with the elementary disease processes and their causes, including a study of the gross and minute appearance of the diseased tissues. Such processes as inflammation, necrosis, gangrene, atrophy, hypertrophy, ulceration; the various degenerations, infiltrations, pigmentations and tumor formations are considered.

Practice work consists of the microscopical study of these processes and instruction in laboratory technique.

References: General Pathology, Ziegler; Text-book of Comparative General Pathology, Kitt; Text-book of Pathology, Delafield and Prudden; Pathological Technique, Mallory and Wright.

Laboratory fee, \$1.50. Prerequisite: Veterinary Anatomy 202.

(Required in XI).

#### 341, 342. Special Pathology. (2-0, 2-4).

A course of lectures on the special systematic pathology and morbid anatomy of the different organs and systems of organs. The pathology of the various infectious and contagious diseases is considered.

Practice work includes the demonstration of museum and fresh speci-

mens, and an introduction to post-mortem technique. References: Pathology and Therapeutics of the Diseases of Domestic Animals, Hutyra and Marek; Veterinary Post-mortem Technic, Crocker.

Laboratory fee, \$4.00, second term. Prerequisite: Veterinary Pathology 242.

(Required in XI).

343. Special Bacteriology. (2-4).

This course deals with the pathogenic micro-organisms; their morphology, cultural characteristics and pathogenicity is considered.

Practice work consists of the study of the more important microorganisms which produce disease in man and domestic animals.

References: Microbiology, Moore; Veterinary Bacteriology, Buchanan; A Text-book of Bacteriology, Hiss and Zinsser.

Laboratory fee, \$4.00. Prerequisite: Biology 209, or its equivalent.

(Required in XI).

441. Immunology and Serum Therapy. (2-2).

The fundamental principles of immunity are considered. Special attention is given to the preparation of biologics used in the prevention of infectious diseases.

Laboratory fee, \$4.00.

Prerequisite: Veterinary Pathology 343.

(Required in XI).

442. Meat Hygiene. (2-2).

This course deals with the abattoir inspection of meats and meat products; the Federal regulations governing such inspection, condemnation and disposal of carcasses, also the regulations governing interstate and foreign shipments of live stock.

Text: Meat Hygiene, Edelmann, Mohler and Eichorn. Prerequisite: Veterinary Pathology 341, 342. (Required in XI).

### 443. Parasitology. (2-2).

This course deals with the parasites infesting the domestic animals, and the pathological conditions produced by them. Attention is given to the treatment and control measures.

Laboratory fee, \$1.50.

Prerequisite: Biology 201, 202, or equivalent. (Required in XI).

444. Laboratory Diagnosis. (2-2).

The methods of procedure in the preparation of materials for laboratory examination are given, and the technique of examination explained. Those biological tests which are of especial importance are considered.

Laboratory fee, \$2.00.

Prerequisite: Veterinary Pathology 341, 342, 343.

#### FOR GRADUATES.

541, 542. Advanced Special Pathology. (3-4). Major.

Etiology, pathogenesis, lesions and results of disease of organs and systems of organs; also pathology of the infectious diseases.

Prerequisite: Veterinary Pathology 242, or equivalent. Laboratory fee, \$5.00 each term.

541a, 542a. Advanced Special Pathology. (2-4). Minor.

A modification of course 541, 542. Laboratory fee, \$5.00 each term.

543, 544. Advanced Special Bacteriology. (3-4). Major.

A study of the pathogenic micro-organisms; their cultural and biological characteristics and pathogenicity.

Prerequisite: Biology 209, or equivalent.

Laboratory fee, \$5.00 each term.

543a, 544a. Advanced Special Bacteriology. (2-4). Minor. A modification of course 543, 544. Laboratory fee, \$5.00 each term.

# DEPARTMENT OF VETERINARY PHYSIOLOGY AND PHARMACOLOGY.

### ASSOCIATE PROFESSOR BLACKBERG.

121. Physiology of the Domestic Animals. (2-0).

Lectures on the physical and chemical processes involved in the physiological functioning of the bodies of the domestic animals.

(Required in XI).

122. Physiology of the Domestic Animals. (2-0).

Lectures on the physiology of the circulatory, respiratory, muscular and locomotor systems.

Prerequisite: Course 121.

(Required in XI).

221. Physiology of the Domestic Animals. (2-0).

Lectures on the nervous system, including special senses, digestion, absorption, secretion and excretion.

Prerequisite: Course 122.

(Required in XI).

222. Physiology of the Domestic Animals. (3-4).

Lectures on physiological chemistry, with special reference to digestive juices, enzymes, ferments, hormones, internal secretions, milk, urine, and chemical composition of the body.

The laboratory practice consists of studying blood, milk, urine, and other body fluids, including the action of natural and artificial digestive juices (enzymes) on the various foodstuffs. The students also make graphic records of the physiological functioning of the muscular, nervous, respiratory, and circulatory system.

Laboratory fee, \$2.50. Prerequisite: Course 221.

(Required in XI).

### 333. Pharmacology. (3-4).

This course covers the general preliminary work in pharmacology. By a series of lectures and recitations a detailed study is made of metrology of the history of therapeutics, the source and composition of drugs, the methods of administration, the various factors influencing the actions of drugs upon the individual, and the active constituents of medicinal plants and posology. The drugs affecting the circulatory and nervous systems, including antipyretics, are then studied in a systematic manner.

The practice consists of laboratory work in examining and identify-

ing crude drugs, making tests for their purity, extracting their active constituents, making chemical tests for each. Pharmaceutical methods used in the manufacture of medicinal preparations are carefully studied and each student is required to make a definite number of all types of official preparations, described in the Pharmacopoeia and in addition a number of non-official preparations. Prescription filling, preparing, compounding and dispensing pharmaceutic preparations are all given ample consideration. The student is given an opportunity to observe the actions of drugs on experimental animals. The chemical and biological methods of standardization of medicinal preparations are taken up in detail.

Text: Veterinary Pharmacology and Therapeutics, Milks; Veterinarian's Handbook, Udall.

Laboratory fee, \$3.00. (Required in XI).

### 334. Pharmacology. (3-0).

This course, which consists of a series of lectures and recitations, is a continuation of course 331 and takes up all the drugs which were not studied at that time.

Prerequisite: Course 333. (Required in XI).

#### 432. Toxicology. (1-2).

The theory of this course consists of a series of lectures, discussing the causes, symptoms, lesions, prevention and treatment of organic and inorganic poisons, including poisonous plants and endogenous poisons.

In the practice, each student is required to make microscopical, chemical and biological analyses of the more common organic and inorganic poisons and poisonous plants. The students also observe the symptoms, lesions and methods of treatment of cases, produced by the more common poisons upon experimental animals.

Laboratory fee, \$2.50.

Text: Veterinary Toxicology, Lander; Medical Chemistry and Toxicology, Holland.

(Required in XI).

#### FOR GRADUATES.

#### 501, 502. Advanced Practical Physiology. (3-4). Major.

This course affords opportunity for observations of the more intricate and recent phases of physiology. It is arranged for advanced students or teachers of physiology who wish to make a thorough study of modern experimental methods. The work will be arranged to suit the needs of the student and in harmony with his previous training. A thesis, based on original investigation is required as part of this course. 501a, 502a. Advanced Physiology of Nutrition. (2-4). Minor.

This course deals with a detailed study of the modern theories of nutrition with special reference to vitalines.

505a, 506a. Advanced Poisonous Plants. (2-4). Minor.

This course will deal with original investigations and detailed studies of the poisonous plants affecting domestic animals.

507, 509. Advanced Experimental Pharmacology. (3-4). Major.

This course affords opportunity for studying the modern methods of research in pharmacology and pharmaceutical processes. It comprises original research in studying the actions and uses of drugs. A thesis based on original investigation is required as part of this course.

### DEPARTMENT OF VOCATIONAL TEACHING.

PROFESSOR HAYES, PROFESSORS KRAFT, MARTEN, ASSOCIATE PROFESSOR BROWN, ASSISTANT PROFESSOR DICKEY.

202. Psychology. (3-0).

This is a beginning course in psychology adapted especially to the needs of business men and administrators. A study is made of the fundamentals of instinct, attention, habit formation, memory, etc., and the application of these principles to life, to advertising, and to the management of employes.

(Required in XIV).

#### 305. Vocational Education. (3-0).

It is the purpose of this course to give a clear understanding of the field of vocational education, to insure sympathy and enthusiasm for the introduction of vocational training in the public schools, to set up proper objectives and to indicate standards in methods, content, and in qualifications of teachers for agricultural, industrial, commercial, and home-making education.

(Required in I, group 2; XII, XIII; elective in I, groups 4, 5, 7, 9, 10).

308. Educational Psychology. (3-0).

This is a beginning course in psychology with special emphasis on its application to the problems of teaching. Among the topics considered are the following: Instincts, individual differences, mental tests and measurements, habit formation, association, retention, attention and motivation, characteristics of adolescents and relation to methods of teaching and control.

(Required in I, group 2; XII, XIII; elective in I, groups 4, 5, 7, 9, 10; XIV).

### 310. Educational and Vocational Guidance. (3-0).

This course includes a survey of the recent development of educational and vocational guidance within and outside of the schools, information on the common occupations and their requirements, an analysis of personal characteristics; try-out methods; value of opportunity and cooperative part-time classes; value of cumulative school records; methods of keeping records; opportunities for educational and vocational guidance; vocational guidance through literature; need for follow-up work in vocational counselling; a study of psychological, industrial and commercial tests.

(Elective in I, group 2; XII, XIII, XIV).

### 311. Job Analysis. (3-0).

In this course emphasis is placed upon the job analysis and its importance as the foundation for all lesson planning. An analysis of some of the more important industries in which the members of the class are interested, such as woodworking, metal working, printing, electrical construction and operation, automobile construction and repair, is made. Important type jobs, as represented by the evening trade extension parttime and industrial courses, are analyzed as to their operations, trade knowledge, and teaching points, members of the class choosing the type jobs for analysis in which they are most interested.

(Required in XIII).

### 401. Methods of Teaching Agriculture. (3-0).

The fundamental principles of the aims and methods of the recitation are studied with their application to the conditions of the high school and especially the class in vocational agriculture. The project method of teaching and the socialized recitation are emphasized. Observation in assigned classes and supervised teaching in vocational agriculture are required as part of the course.

(Required in I, group 2; XII; elective in I, groups 4, 5, 7, 9, 10; XIV).

#### 402. Administration of High School Agriculture. (3-0).

This course is a study of the specific problems that confront the teacher in carrying on the work of the department of vocational agriculture in the high school. The analysis of the job of the farmer in a given community; the arrangement of the farm activities into seasonal sequence; the making of the teacher's annual plan; the selection, supervision and operation of home projects; the selection and management of library, shop and laboratory equipment; the organizing and conducting of part-time or evening short unit courses; the conducting of prevocational agriculture classes; and the relation of the teacher of vocational agriculture to his school and community, are some of the most important phases of the course. Students get practice in observation and supervised teaching in connection with this course. (Required in I, group 2; XIII; elective in I, groups 4, 5, 7, 9, 10; XIV).

# 403. Rural Education. (3-0).

The primary purpose of this course is to make a study of rural education in its broad sense, with a view of preparing teachers and extension workers for more efficient service in rural communities. Some of the topics discussed are: Changes in rural education and the rural home, together with the factors affecting such changes; the school as a community center; other agencies to be co-ordinated; community play and recreation; and the redirected rural school.

Text: Rural Life and Education, Cubberley.

(Elective in I, group 2; XII, XIV).

#### 404. Agricultural Extension and Demonstration. (3-0).

This course is intended to give a survey of the whole field of extension in agriculture and home economics, and to give practice that will prepare for actual field work. Among the topics discussed are: Evolution of extension in agriculture and home economics; general organization for extension; methods of extension, farm demonstration work; junior agricultural clubs; extension by experts; extension by railroads and commercial companies; and the training of extension workers. Courses 301, 302 and 403 are important to give preparation for this course, but they are not prerequisite. Lectures, assigned readings, and problems constitute the work of this course.

(Elective in I, group 2; XII, XIV).

## 409. Supervised Teaching. (3-0).

The purpose of this course is to give opportunity for students to get actual experience in teaching secondary agriculture under supervision. Lesson plans are submitted by the student and approved by critic teaching in advance of the lesson. The teaching methods and results of the student are discussed in special conferences. Teaching will be done in classes in vocational agriculture on the campus or at nearby high schools. Observation and study are required in addition to the supervised teaching. A minimum of four weeks of continuous teaching will be required. Students are urged to select their courses so that the hours 2 to 4 p. m. will be left open as many days as possible so that the teaching will not interfere too much with work in the other courses.

(Required in XII; elective in I, group 2; XIV).

410. Supervised Teaching. (3-0).

This course may be considered the same as 409, or as a continuation of 409.

412. Supervised Teaching. (1-4).

This course gives students an opportunity to get actual experience

in teaching industrial education under supervision. Lesson plans are submitted for approval in advance of the lesson. Conference periods are held for discussion of methods used and results obtained. Application for this course should be made at least three months in advance.

(Required in XIII).

#### 415. Educational Tests and Measurements. (3-0).

The teacher of agriculture is constantly being used in the smaller school systems in the State as principal or superintendent. It is necessary, therefore, that the special teacher of agriculture have the opportunity of becoming acquainted with modern methods of measuring the results of teaching.

The purpose of this course is to give the teacher, the principal, and the superintendent a working knowledge of educational tests. A study is made of the various tests and measurements employed in measuring school-room instruction.

(Elective in I, group 2; XII, XIII, XIV).

#### 416. Administration and Supervision of Industrial Education. (3-0).

This course deals with the various problems encountered in introducing industrial education into a school system and in developing the work in its varied forms. Among the topics discussed are: The place of industrial education in the junior high school as an aid toward educational guidance into the vocations and avocations of life; organization of courses of study for junior high schools, senior high schools, technical schools, trade schools, and corporation schools; safety first; plans and equipment; selection of teachers; improvement of teachers in service; formulating programs; selection of text-books; class-room management.

(Required in XIII).

### 417. Lesson Planning and Methods of Teaching Industrial Arts. (2-2).

This course deals with the effective planning of a lesson in relation to its aim. It includes the planning of definite courses and the arrangement of these courses in effective instructional order, members of the class choosing special industrial education courses in which they are most interested. Emphasis is placed on the details in planning a definite lesson, taking into consideration the varying technical development of the students in the class. Methods of teaching and their value under different teaching conditions are discussed.

(Required in XIII).

#### 418. Visual Instruction. (1-4).

The purpose of this course is to study the theory and practice of visual instruction and to acquire skill in the preparation and use of material for visual instruction. The course includes the designing and making of charts, use of the camera making negatives and lantern slides, coloring lantern slides, use of stencils, mimeoscope and projection lantern, operation and care of motion picture machine, graphic representation of data and the use of the cartoon. Instruction is given in preparation and display of material for fairs and exhibits.

(Elective in I, group 2; XII, XIII, XIV).

#### 419, 420. Agricultural Education Seminar. (1-0).

An informal conference is held once a week. The staff of the department and other teachers of the College interested in the current agricultural education problems assist in the discussion. Students enrolling for credit select special subjects for study and report progress from time to time.

(Elective in I, group 2; XII, XIV).

#### 421. Class Room Organization and Management. (2-2).

The vital relationship of efficient organization and management to the work of the class room is emphasized. Some of the topics discussed are the industrial education instructor's relation to the school system and community; most effective organization of the equipment and economic way of securing materials as teaching aids; planning of daily programs; lesson planning; discipline and individual adjustment; grading, records and reports; opportunities for educational guidance and aids; opportunities for improvement and advancement in service.

(Required in XIII).

#### 422. Organization of Part-Time and Evening Trade Extension Classes. (3-0).

This course is planned for directors in co-ordinators of trade and industry classes. Emphasis is placed upon the definite problems that confront directors of these classes and the solution of these problems. The course includes a study of Smith-Hughes requirements; analysis of industries and planning short unit courses; kinds of evening and part-time classes; their organization and management; holding the members; making out class room records and reports; securing materials as teaching aids.

(Elective in XIII).

#### 423. Training Industrial Conference Leaders. (3-0).

This course is planned to give prospective industrial conference leaders from oil refineries, textile mills, electric and steam railway shops, and power and light plants a conception of the principles involved in training foremen and the methods used in conducting conferences for the training of foremen. The value of the developmental method over the informational method of foremen training, and job analysis and its importance are emphasized. Extensive experience is given in analyzing the foreman's responsibilities as related to men, materials and equipment.

(Elective in XIII).

- [

424. Training and Supervising Workers in Industrial Plants. (3-0). This course is planned for high grade engineering students in their junior and senior years who wish to increase their future opportunities for promotion as executives in the many fields of engineering activities. This course includes a brief summary of the development of training in industry, including corporation schools, vestibule schools, foreman conferences, job analysis, instruction on the job, and effective handling of employes.

(Elective in XIII).

#### FOR GRADUATES.

#### 501, 502 Agricultural Instruction. (4-0). Major.

This course involves more extensive study of the problems raised in courses 401 and 402. In addition to this study of the work of the teacher of vocational agriculture, each student selects an individual problem for intensive study as a basis for his thesis. As one of the requirements of this course the student attends and takes part in courses 419, 420. Courses 401 and 402 must precede or accompany this study.

501a, 502a. Agricultural Instruction. (3-0). Minor.

A modification of course 501, 502.

503, 504. Agricultural Extension and Demonstration. (4-0). Major.

This course involves more extensive study of the problems raised in course 404. In addition to this study of the entire field of Farmers' Co-operative Extension Work in Agriculture and Home Economics each student selects an individual problem for intensive study as a basis for this thesis. As one of the requirements of this course the student attends and takes part in courses 419, 420. Course 404 must precede or accompany this study.

503a, 504a. Agricultural Extension and Demonstration. (3-0). Minor. A modification of course 503, 504.

# 505, 506. Organization and Management of Teacher-Training Departments. (4-0). Major.

This course involves a more extensive study of the problems raised in courses 401 and 402, with special emphasis on the duties of the teacher of vocational agriculture as a basis for determining what the teachertraining department must do and how it must be accomplished. Each student selects an individual problem for intensive study as a basis for his thesis. Courses 401 and 402 must precede or accompany this study. As one of the requirements of this course the student attends and takes part in courses 419, 420.

505a, 506a. Organization and Management of Teacher Training Departments. (3-0). Minor.

A modification of course 505, 506.

507, 508. Direction and Supervision of Vocational Agriculture. (4-0). Major.

This course involves more extensive study of the problems raised in courses 401 and 402, with special emphasis on the means and methods of supervising and directing the work of the teacher of vocational agriculture and supervising the training of teachers. Courses 401 and 402 must precede or accompany this study. As one of the requirements of this course the student attends and takes part in courses 419, 420.

507a, 508a. Direction and Supervision of Vocational Agriculture. (3-0). Minor.

A modification of course 507, 508.

· · · · ·

# PART V

# RESEARCH, EXTENSION, SUMMER SESSION, AND OTHER ACTIVITIES.

.

· • · · · · · • . · . 4. .

# THE AGRICULTURAL EXPERIMENT STATION.

#### B. YOUNGBLOOD, DIRECTOR.

The Texas Agricultural Experiment Station is one of the four coordinate divisions of the Agricultural and Mechanical College of Texas. Its function is the investigation of agricultural problems. It consists of a central station at College Station, and thirteen substations, located in various sections of the State, as follows:

Angleton, Beeville, Beaumont, Chillicothe, Denton, Lubbock, Nacogdoches, Pecos, Spur, Temple, Troup, Sonora, College Station.

These substations are used for extending the work of the Main Station, so that Statewide information may be secured upon the various phases of Station work. The Station at the present time is supported by \$30,000 Federal and \$180,970.40 State funds, for the year.

The work of the Station comprises the investigation of the more important problems of veterinary science, chemistry, horticulture, animal industry, entomology, agronomy, plant pathology and physiology, forestry, plant breeding, rural economics, and the Feed Control Service. The Station is a source of valuable information for students of agriculture and the farmers and stockmen of the State. It is looked to for facts by the School of Agriculture, the Extension Service, and other agencies for the dissemination of agricultural information.

The work of the Main Station, and of the feeding and breeding substation (Substation No. 10) presents to students very unusual opportunities both in theoretical instruction and practical experience.

A brief statement of the work of the Station, by divisions and substations, is as follows:

#### MAIN STATION.

#### VETERINARY SCIENCE.

The Division of Veterinary Science conducts researches covering the diseases of farm animals of various kinds. Special attention is being given to diseases affecting horses and mules, cattle, sheep, goats and swine.

#### CHEMISTRY.

The Division of Chemistry conducts researches relating to feedstuffs, soils, fertilizers, irrigation waters, minerals, paints, and miscellaneous analysis; analysis of feeding stuffs for the Feed Control Service; and the enforcement of the State law regulating the sale of commercial fertilizers. The Chief of the Division of Chemistry is also State Chemist.

#### HORTICULTURE.

The Division of Horticulture conducts researches relating to fruits, vegetables, and ornamental trees and shrubs, and the introduction and

propagation of new and promising varieties of fruits, vegetables and shrubs from foreign countries.

#### ANIMAL INDUSTRY.

Under the Division of Animal Industry researches are conducted with reference to the feeding, breeding, and management of various types of farm animals, including cattle, horses, sheep, goats, swine, and poultry. Substations 7, 10, and 14 are used somewhat extensively for various lines of research into problems relating to the animal industry of the State.

#### ENTOMOLOGY.

The Division of Entomology conducts researches relating to the various insect pests affecting the crops of the State, including life-history and methods of control of the various species, as well as researches relating to the beekeeping industry of the State. The chief of this division is also State Entomologist, and as such has immediate charge of the enforcement of the law regulating foul brood in bees.

#### AGRONOMY.

The Division of Agronomy conducts researches relating to the various farm crops adapted to the State, and pays special attention to the introduction and propagation of new and promising crops from foreign countries. Attention is also paid to soil fertility, and researches are conducted as to methods of application of fertilizers and green manures for soil improvement.

#### PLANT PATHOLOGY AND PHYSIOLOGY.

The Division of Plant Pathology and Physiology conducts researches relating to the diseases affecting plants of the State, with a view to developing methods of combating them. Both field crops and vegetable diseases are studied, as well as diseases of trees, ornamentals, and shrubs of various kinds.

#### FORESTRY.

The Division of Forestry conducts researches relating to the introduction, preservation and propagation of forest trees in various parts of the State, and the maintenance of an adequate timber supply for the State. The State Forester, who is chief of this division, is charged by law with the prevention of forest fires.

#### PLANT BREEDING.

The Division of Plant Breeding conducts researches that relate to the breeding of plants, and their improvement, including field crops, such as cotton, corn, the sorghums, and so forth, special attention being paid to inheritance, and determination of the Mendelian unit characters.

#### FARM AND RANCH ECONOMICS.

Formerly it was the custom for experiment stations to take up specific problems affecting farm practices for solution by specialists. At the present time there is quite a general change in viewpoint which causes the experiment station to look upon all farm problems as being a part of or having a bearing upon the more general problems of rural economics and sociology. In accordance with a nation-wide movement, there has been created in the Texas Station a Division of Farm and Ranch Economics, for the purpose of studying the economic problems affecting the agriculture of the State. In the future, therefore, the work of the specialists will be so arranged as to solve specific problems and at the same time throw light upon the more general economic problems.

#### FEED CONTROL SERVICE.

The State law regulating the sale of concentrated commercial feeding stuffs and the materials from which they are manufactured, provides for defining them, for prohibiting their adulteration; for correct weighing and marking, and for collecting of samples; it also provides for the expense of enforcing the law, and for fixing penalties, and places the enforcement of the act in the hands of the Director of the Texas Agricultural Experiment Station. The Director is empowered to adopt names, standards and definitions; to refuse registration of any feeding stuff under a name which would be misleading as to the materials of which it is made up, or which does not conform to the standards, and after ten days' notice to cancel such registration as may be found in violation of the law or contrary to the names, standards and definitions in effect.

The purpose of the Feed Control Service, which is operated as a division of the Station, is to afford protection alike to buyers and sellers of feeding stuffs. Annual bulletins are issued, giving the names, standards and definitions; lists of firms registered for the purpose of selling feeds in Texas, and the feeds offered by them, as well as the chemical composition of these feeds, as determined by the chemist for the Feed Control Service.

The Feed Control Service investigates problems encountered in the enforcement of the law, with reference to the feeding values of various feeds and combinations of feeds. The results of these investigations are given to the people of the State through bulletins and circulars, issued from time to time.

#### SUBSTATIONS.

The thirteen substations, owned and operated by the State as a part of the Station, are, as their name implies, subordinate to and a part of the Main Station. In the location of these substations due regard has been given to the need of outlying work within the several agricultural regions.

#### PUBLICATIONS.

The reports, bulletins and circulars of the Station are distributed to the farmers and stockmen of Texas, and others interested, free for the asking. Care is taken, however, to see that economical distribution is made. All requests for publications should be addressed to:

# THE DIRECTOR, TEXAS AGRICULTURAL EXPERIMENT STA-TION, A. AND M. COLLEGE OF TEXAS, COLLEGE STATION, TEXAS.

# THE ENGINEERING EXPERIMENT STATION.

## J. C. NAGLE, DIRECTOR.

The Texas Engineering Experiment Station is composed of all the engineering departments of the College, and was organized in 1914 for the purpose of affording a service to the industries of Texas similar to that afforded to the agricultural interests by the Agricultural Experiment Station; of assisting the urban population of the State in solving the technical problems of urban life; of investigating engineering and industrial problems of especial importance to Texas, and of disseminating information along these lines.

The Texas Engineering Experiment Station staff consists of the entire teaching force of the following departments of the College:

Agricultural Engineering. Architecture. ł Chemical Engineering. Civil Engineering. Economics. Electrical Engineering. Mechanical Engineering. Physics. Textile Engineering. Bulletins have been issued as follows: No. 1. Earth Roads. No. 2. Relation and Value of Chemistry to Industry. No. 3. The Comparative Value of Fuels. No. 4. Highway Bridges and Culverts. No. 5. Highway Engineering at the A. and M. College. (Superseded by No. 14). No. 6. Household Conveniences. No. 7. Gravel Roads. No. 8. Electricity in the Country Home. No. 9. Cotton Classing and Marketing. No. 10. Sewage Disposal for Country Homes. No. 11. Purchasing by Specification. Demonstration Roads at the A. and M. College. (Out of No. 12. print). No. 13. The Financial Side of Road Improvement. No. 14. Highway Engineering at the A. and M. College of Texas. (Out of print). No. 15. The Organization of a State Highway Department for the State of Texas. (Out of print). No. 16. Maintenance of Earth, Sand-Clay and Gravel Roads. No. 17. The Physical Testing of Non-bituminous Road Materials.

No. 18. The Benefits of Good Roads.

- No. 19. Sand-Clay Roads.
- No. 20. The Value of Economic Geology.
- No. 21. The Administration of Highway Improvements. R. L. Morrison.
- No. 22. Bituminous Pavement Investigations in Certain Texas Cities, Part I, Bitulithic. Roy M. Green.
- No. 23. Principles of Pavement Selection, with Statistics of Pavements in Texas Cities and Towns. Prior to January 1, 1920. Roy M. Green and L. W. Kemp.
- No. 24. Bituminous Pavement Investigations in Certain Texas Cities, Part II, Asphaltic Concrete (Topeka and Modified Topeka), Sheet Asphalt, Uvalde Rock Asphalt, and Oklahoma Rock Asphalt. Roy M. Green.

For copies of these bulletins, and for information regarding the work of the Texas Engineering Experiment Station, address J. C. Nagle, Director, College Station, Texas.

# THE EXTENSION SERVICE.

#### T. O. WALTON, DIRECTOR.

Extension work in agriculture and home economics by the Agricultural and Mechanical College in co-operation with the United States Department of Agriculture was established under the terms of the Smith-Lever Act, the Texas Legislature formally accepting the terms of the Federal Act passed in May, 1914. The Board of Directors and the President of the College executed the first co-operative agreement under its terms with the States' Relations Service of the United States Department of Agriculture in 1914.

The general purpose is to carry information from the College, the Experiment Stations and other authentic sources to farmers, farm women, farm boys and girls. In addition to the regular State and Federal Smith-Lever funds that are available for the conduct of the work, several co-operative projects are maintained by the United States Department of Agriculture under co-operative agreement between the College and department, these activities being correlated with and functioned through the Extension Service of the College. Besides the important undertakings of farm and home demonstration work through county agents, sustained jointly by the county, the College and the Department of Agriculture, the service disseminates information by demonstrations for the development of better farming and home-making, and in a broad way for the promotion of rural welfare. The funds available from the counties, the State and the Federal Department have been sufficient to enable the College to maintain county agents in practically all of the more important agricultural counties in the State. The condition under which work is placed in a county is, that the county commissioners court or other local organization pay from one-half to two-thirds of the salary of the agent; the remaining portion of the salary and expenses being borne by the College and department.

#### FARM DEMONSTRATION WORK.

The farm demonstration work is conducted by district and county agents, and consists of applying scientific principles to the solution of the problems of production and marketing farm and ranch products.

#### HOME DEMONSTRATION WORK.

The farm home is an essential part of the farm establishment, and the district and home demonstration agents are disseminating information to farm housewives through demonstrations, lectures, publications, in home management, dairying, gardening, orcharding, poultry keeping and other phases of home improvement; thus enabling the farm women to keep fully informed with reference to modern methods in dealing with household problems.

#### SPECIALISTS.

In the growth and development of the work, trained specialists in certain phases of agricultural work have been found essential to the successful dissemination of information on improved agricultural practices. These men and women specialists keep in touch with the latest information obtainable regarding their particular specialty and assist the county and home demonstration agents in the solution of difficult problems in their work requiring the services of specially trained men and women along certain lines, and compile information, answer correspondence, and emergency calls.

#### RURAL ORGANIZATION.

The Extension Service, through its specialists, district and county agents, is encouraging rural organization in counties where agents are maintained, the purpose of these organizations being to stimulate cooperation among farmers in all matters of interest to farm families, and especially the co-operative handling of farm products through purchase and sale in such manner as to obtain the best returns.

#### BOYS' AND GIRLS' CLUBS.

The primary mission of an educational institution is to look after the rising generation, and while the Extension Service would in nowise neglect the adult farmer, yet it has realized the importance of properly training the youth of the State during the formative period; therefore, special effort has been made under trained leadership and by diligent instruction to give the boys and girls the proper understanding of agriculture and home economics and to prepare them for successful and happy life in the country. The particular projects maintained are boys' agricultural and live stock club work and girls' canning and poultry club work.

#### PUBLICATIONS.

Seasonal advice on farm problems is issued through bulletins, leaflets, circulars, correspondence, newspaper articles, and the Semi-Monthly Extension Service Farm News, as well as correspondence and mimeographed letters and circulars.

# SUMMER SESSION.

#### GENERAL STATEMENT.

The Summer Session of the Agricultural and Mechanical College of Texas has been established for the following well defined purposes:

1. To provide courses of instruction in all phases of agriculture and the allied sciences, and in automobiles and tractors, manual training, cotton classing, grain grading, rural sanitation, rural economics, and rural social science, for the benefit of teachers, rural ministers, county and local officers, farmers, farm boys, farm women, rural merchants, and others who may be interested in any phase of agricultural or rural development.

2. To offer to young men having sufficient preparation the opportunity of taking courses for college credit, and also to permit students of the College to remove deficiencies or to pursue courses toward graduation.

3. To provide the opportunity for graduate work in a limited number of courses carrying credit toward the degree of Master of Science. ORGANIZATION.

The work of the Summer Session is given in the following eight divisions:

#### 1. The College. (Twelve Weeks).

Two groups of courses will be given in this division, as follows:

- 1. Courses carrying credit toward graduation.
- 2. Courses carrying credit toward a certificate in agriculture.

All courses in this division are open only to those who have had the prerequisite training. The work is given in two terms of six weeks each.

The maximum amount of work a student may carry in a six weeks' term is the equivalent of eight term-hours, except in the case of men who have had approved teaching experience; with the consent of the Director of the Summer Session such men may carry the equivalent of nine 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.

All work in the Summer Session must be taken in accordance with the published schedule.

The last day on which a student may complete his registration for work in the College Division is Friday of the first week of each term. All students, except those registering for the first time, who do not complete their registration on the first day of each term will be charged a fee of five dollars for late registration.

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

### 2. The School of Cotton Classing. (Six Weeks).

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

A study is made of the elements which determine the commercial grades of cotton; the influences which affect the price of cotton; the system of financing the crop from 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 the 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 is paid to the staple of cotton, and experts in this branch give instruction in this subject. Many samples of various lengths of staple are provided for students taking up this line of work.

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

#### 3. The School of Grain Grading. (Six Weeks).

The School of Grain Grading has been established for the purpose of giving detailed instruction in the matter of grading grains according to the Federal standards established by the recent Grain Standards Act. This act was approved August 11, 1916, and its purpose is to provide for the establishment of a single set of standards of quality and condition for the various grains, and to provide for their uniform application to the shipments of grain by grade in interstate and foreign commerce. The act specifically prohibits the use of any other grades whatsoever for any grain which comes under its requirements. To enforce the provisions of this act and to supervise the inspection of grain, in order that the Federal grades may be uniformly and properly applied, a Federal Grain Supervision Service has been created in the Bureau of Markets of the United States Department of Agriculture. In carrying out the provisions of this service the actual inspection and grading of grain is done by inspectors licensed for that purpose. In Texas these inspectors are licensed by the State Commissioner of Markets and Warehouses. In order to secure such a license it is necessary that the applicant first pass a satisfactory examination before a State board of examiners for grain graders, which board is appointed by the Commissioner of Markets and Warehouses of the State of Texas. This examination is held in accordance with the Federal Grain Standards Act and the like standards of the Markets and Warehouse Department of the State of Texas. It is the plan of the Department of Markets and Warehouses to have a large number of people in the grain growing belt of this State prepare themselves for the classing and grading of grain. One of the important objects of the Grain Grading School is to prepare persons who desire to enter this field of work for the examination mentioned above.

Again, the use of the Federal standards in the grain markets has stimulated a desire among grain farmers and grain dealers to gain a knowledge of the methods of applying the standards. This knowledge will enable the farmer to know, when his grain is being graded at the country mill or elevator, that it is being done properly. These facts, together with the generally increased interest in the last few years in marketing of farm products, has greatly increased the demands made on the agricultural colleges for information on the market grading of grains.

The work of the Grain Grading School will cover, in detail, the grading of wheat, corn (both in the ear and shelled), oats, rice, and the grain sorghums (both in the head and the threshed grain). No Federal standard has been established for the grain sorghums. However, the State Commissioner of Markets and Warehouses has recently established standards for the grading of grain sorghums, and the work of this school, relative to grain sorghums, will be given in accordance with the standards fixed by the Commissioner of Markets and Warehouses.

#### 4. The Eight Weeks' Course in Automobiles and Tractors.

This course is intended to meet the demand for men who can operate and repair farm gas engines, tractors and automobiles.

The gas engine is the basis of tractors, automobiles, and the farmer's power, hence the course includes a very thorough training in gas engines. All types of gas engines are studied, from the one-cylinder up to the eight-cylinder. The student actually takes apart these engines, puts them back together, and makes them run. In this way he learns how to time valves, ignition, grind valves, etc. Bearings are poured and scraped. Soldering, hardening of steel and other practical points needed in motor repair are taught.

A very careful study, which includes repair and adjustment, is made of the chassis—the springs, rear end transmission.

Two weeks are spent in the study of ignition of multi-cylinder motors. The different systems found on tractors and automobiles are taken up. The student is expected to wire up the various systems as they are found on the tractors and automobiles in the laboratory.

Magnetos are taken apart and studied; they are timed and repaired. Every effort possible is made to get the student familiar with the principles underlying gas engine ignition.

Oxygen-acetylene welding is given in the regular course. Students get an opportunity to do welding. The department does considerable welding for the outside, and the students get the benefit of seeing this work done.

A detailed study of tractors is included, which requires the students to use them in the field. The Agricultural Engineering Department has a 100-acre farm which is reserved for tractor work with students.

All the field operations are done, such as plowing, discing, threshing, cultivating, hauling, etc.

#### 5. The Farm Boys' Division. (Four Weeks).

The object of this course is to offer to boys not under fourteen or over eighteen years of age, elementary, but practical, courses in subjects relating to farm life.

For several years there has been growing, throughout the State, a feeling that our farm boys should be given better opportunities for securing special training in agricultural and farm-life subjects. A great majority of these boys have not had access to schools of sufficient grade to enable them to enter college courses, and it is to meet their needs for practical instruction in agriculture that the Farm Boys' Division has been added to the work of the Summer Session.

Courses will be given covering the important divisions of agriculture.

#### 6. The Course for County Agents. (Six Weeks).

The work of this division is planned to meet the needs of persons who desire to better prepare themselves for county agent work. The duties of an efficient county agent require that he has a knowledge of the elementary principles underlying agricultural practice, as well as successful farm experience. In the future no person will be appointed to a position as county agent in Texas who does not have, in addition to successful and satisfactory farm experience, a general knowledge of the principles underlying modern agricultural practice, and who cannot satisfactorily pass an examination as provided for in the following "rider," which was attached to the appropriation bill for the Agricultural and Mechanical College by the Thirty-sixth Legislature:

"Provided further, that no salary provided for in the Extension Service section of this act shall be paid to any person who has not first stood a satisfactory examination before the faculty of the Agricultural and Mechanical College of Texas, or a committee of not less than five selected from said faculty by the President of the Agricultural and Mechanical College. Said examination shall be conducted at such times and places and shall embrace such subjects as shall be decided upon by the faculty or committee herein provided for."

The courses of study in this division have been carefully outlined to meet the needs as stated above.

#### 7. The Farmers' Short Course. (One Week).

This course is planned to meet the needs of men and women who desire to farm on a better basis, and to make farming more profitable, and to make farm life more comfortable and attractive.

The teaching staff of the Farmers' Short Course will be composed of officers from the teaching division, the Experiment Station and the Extension Service of the College. There will also be several out-of-State speakers of national reputation.

#### CHARACTER OF WORK.

1. Agriculture.—Separate courses will be offered in the following departments: Agricultural Education, Agricultural Engineering, Agronomy, Animal Husbandry, Dairy Husbandry, Horticulture, Poultry, Plant Diseases and Insects, and Veterinary Medicine.

2. Home Economics.—A special course in Home Economics will be offered to girls and women. The work will consist of lectures and demonstrations in cooking, canning, basket making, and household art. A special feature of this course will be the Canning Club Contest for the Farm and Ranch Loving Cup.

3. Course for Boys.—A special course will be offered for boys. The work will be given in judging live stock, farm machinery, gas engines, tractors, budding and grafting of plants, and the like. A special feature of this course will be the Live Stock Judging Contest for the Progressive Farmer's Loving Cup.

#### 8. The Short Course for Electric Metermen. (One Week).

The object of this course is to give intensive instruction covering the principles of operation, the calibration and methods of repair of electric meters.

While this course will be of special interest to employes of those central stations which do not find it possible to provide training for the members of their meter departments, it will prove of value to anyone interested in the testing, adjusting or installing of electric meters.

The instruction will be given in the form of lectures, demonstrations and individual laboratory work, and will cover the fundamentals of electric circuits and the principles underlying the operation of electric meters.

Two courses will be given: one dealing with the more elementary principles of electricity and the single phase meter, and the other for more advanced men will cover polyphase meters.

#### ADMISSION REQUIREMENTS.

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

To enter the eight weeks' course in automobiles and tractors the student must be sixteen or more years old, and must present a certificate from some reliable person showing that he is in good standing in his community.

The work of the Farm Boys' Division is open only to boys not under fourteen or over eighteen years of age.

To enter the course for county agents, the students must meet the minimum educational requirement, which is the equivalent of a first grade teacher's certificate.

There are no fixed requirements for admission to the School of Cotton Classing, the School of Grain Grading, or the Farmers' Short Course.

# FERTILIZER CONTROL SERVICE.

#### G. S. FRAPS, STATE CHEMIST.

The chemist of the Texas Experiment Station is designated by law as State Chemist, and has charge of the enforcement of the fertilizer law. Under his direction fertilizers are inspected, sampled for analysis, the samples analyzed, and the results published as bulletins of the Experiment Station. It is also the duty of the State Chemist to investigate the composition, properties, and agricultural values of fertilizers, of fertilizers. Such investigations are being made, and the results published from time to time. The people of the State are furnished with information concerning fertilizers, by means of personal letters, bulletins, and otherwise. Co-operative fertilizer experiments are made with farmers, so that they can test the effects of various combinations of fertilizers on their own land.

Analyses are made of soils, irrigation and domestic waters, fertilizers, etc., when the analysis would be of public benefit along the lines of agricultural chemistry, and when the samples are taken in accordance with the requirements necessary to secure a suitable sample. Persons who desire to secure an analysis should request further information and instructions for sampling, as samples must be properly taken if the analysis is to have any value.

Analyses of feeding stuffs for the Feed Control Service, and chemical investigations of their composition and properties, are also made by the State Chemist.

# OFFICE OF STATE ENTOMOLOGIST.

#### M. C. TANQUARY, STATE ENTOMOLOGIST.

By law the entomologist of the Texas Agricultural Experiment Station is ex-officio State Entomologist, and his headquarters are at College Station. The State Entomologist is charged with enforcing the laws of the State relative to diseases of honey bees. Under this law, it becomes the duty of every citizen to report the presence of any disease of honey bees to the State Entomologist. The law empowers the State Entomologist to issue such regulations as may be necessary to control diseases of bees. These regulations as they are now issued restrict the shipment of bees and appliances capable of transmitting diseases from one county to another without a certificate showing them to be free from disease. It is unlawful for common carriers to accept for shipment any bees or appliances except as provided for by the State Entomologist. All apiaries having American foul brood are under quarantine. The State Entomologist is required to publish such information as is necessary on the methods and directions for treating, eradicating and suppressing diseases of honey bees. It is unlawful for anyone to seek to prevent the inspection of bees, honey or appliances by the State Entomologist or his assistants. In addition to enforcing the law relative to the diseases of bees, the State Entomologist furnishes the citizens of the State with information concerning injurious insects and their control.

# OFFICE OF STATE FORESTER.

E. O. SIECKE, STATE FORESTER.

By act of the Thirty-fourth Legislature the office of State Forester was established, together with a department of forestry at the Agricultural and Mechanical College, with a division of forestry of the Agricultural Experiment Station with headquarters at College Station. In accordance with the law the State Forester has direction of all forest interests and all matters pertaining to forestry within the jurisdiction of the State. He is charged with the duty of enforcing all laws pertaining to the protection of forests and woodlands, preventing and extinguishing forest fires, collecting data relative to forest conditions, and co-operating with counties, towns, corporations and individuals in preparing plans for the protection, management and replacement of trees, wood lots and timber tracts. Under the forestry act the State is authorized to accept gifts of land to be used so as to demonstrate the practical utility of timber culture, water conservation and as refuges for game. The Board of Directors has the power to purchase lands in the name of the State, suitable chiefly for the protection of timber, as State forests, using for such purposes any special appropriations or any surplus money not otherwise appropriated which may be standing to the credit of the State forestry fund. All moneys received from the sale of wood, timber, minerals, or other products from the State forests and penalties for trespassing thereon shall be paid into the State Treasury and shall constitute a State forestry fund.

274

# PART VI register

• . . . . • . .

.

# REGISTER OF STUDENTS

# GRADUATE STUDENTS

Baker, Dudley EvansCollege of Texas. 1918. B. S., A. and M. College of Texas. 1918. Candidate for the Degree of Civil Engineer
Cole, Ransom JamesBryan B. S., A. and M. College of Texas, 1916. Candidate for the Degree of Master of Science (in Agriculture)
Cox, Moses EugeneCollege Station B. S., Clemson Agricultural College, 1916. Candidate for the Degree of Civil Engineer
Crawford, Charles WilliamBryan B. S., A. and M. College of Texas, 1919. Candidate for the Degree of Mechanical Engineer
Daugherty, Martin MarionBryan B. S., A. and M. College of Texas, 1916. Candidate for the Degree of Master of Science (in Agriculture)
Dickey, George LeonCollege Station B. S., A. and M. College of Texas, 1921. Candidate for the Degree of Master of Science (in Agricultural Education)
Egger, Harmon WilsonGreenville B. S., A. and M. College of Texas, 1921. Candidate for the Degree of Mechanical Engineer
Fletcher, Robert KCollege Station A. B., University of Maine, 1917. Candidate for the Degree of Master of Science (in Agriculture)
Fritts, Thomas AlbertCollege Station B. S., A. and M. College of Texas, 1921. Candidate for the Degree of Master of Science (in Agricultural Education)
Hughes, William LycurgusCollege Station B. S., A. and M. College of Texas, 1921. Candidate for the Degree of Master of Science (in Agricultural Education)
Lomanitz, Sebastian ShabbattaBryan B. S., A. and M. College of Texas, 1908. Candidate for the Degree of Master of Science (in Agriculture)
McNew, John Thomas LamarCollege Station B. S., A. and M. College of Texas, 1918. Candidate for the Degree of Civil Engineer
Milner, Drinkard BlacknallCollege Station B. S., A. and M. College of Texas, 1917. Candidate for the Degree of Master of Science (in Architecture)
Milton, Hugh MegloneCollege Station B. S., University of Kentucky, 1919. Candidate for the Degree of Civil Engineer
Moore, Fleming George

Munson, Thurmond Armour B. S., A. and M. College of Texas, 1910.	College Station
Candidate for the Degree of Civil Engineer	
Patterson, John Carr.	College Station

B. S., A. and M. College of Texas, 1912. Candidate for the Degree of Master of Science (in Agriculture)

Robinson, Frank Hill......Bolliyar, Tenn. B. S., University of Tennessee, 1920. Candidate for the Degree of Master of Science (in Agriculture)

\*Received Master of Science Degree September 30, 1921.

#### UNDERGRADUATE STUDENTS 2

#### Abbreviations

CE.—Civil Engineering. EE.—Electrical Engineering. ME.—Mechanical Engineering. AA.--Agricultural Administration. AE .--- Agricultural Education. Ag.Eng.-Agricultural Engineering. Ag.—Agriculture. TE.—Textile Engineering. VM.—Veterinary Medicine. Ar.-Architecture. Ch.E.-Chemical Engineering. IE .- Industrial Education. C.-Two-Year Course in Agriculture. H.-Two-Year Course in Textile Engineering. M .--- Two-Year Course in Agricultural Engineering. N .- Two-Year Course in Engineering. SP.—Special Student. '25-Freshman. '22-Senior. 1.-First Year of Two-Year Courses. '23-Junior. 2.-Second Year of Two-Year Courses. '23—Junior.2.—Second Year of Two-Year Courses.'24—Sophomore.'25 Ag.ColemanAbbey, Garland Ellis.'25 MEHoustonAblowich, Dave, Jr.'25 EEGreenvilleAbrams, Norman Hughes.'24 MEShermanAdair, George Perrin.'25 EEBoerneAdam, David Andrew.'25 Ag.TexarkanaAdams, Lucian Calvin, Jr.'25 Ag.TexarkanaAdams, William Floyd.'23 EEBrownoodAlbretht, Frederick William'22 Ag.Fort WorthAlbretht, John Allen.'25 AA.KerensAlexander, E. R.'Sp Ag. Ed.BryanA. B., Baylor University, 1919.'22 CE.WeatherfordAlexander, Ralph Kimball.'22 CE.MeatinAllen, Heber Rieves.'25 AA.Mansfield, La.Allen, Sherwood Thomas.'25 AA.MarlinAllen, Sherwood Thomas.'25 AG.MarlinAllen, Sherwood Thomas.'25 AG.MarlinAllen, Sherwood Thomas.'25 AG.MissionAllen, Sherwood Thomas.'25 AA.MarlinAllen, Sherwood Thomas.</ '24-Sophomore.

Arnim, Victor Travis.'25 Ar.Corpus ChristiArnold, Raymond Wesley.'24 EE.San AntonioAshtord, John Ceell'50 Ar.ByanAshtord, John Ceell'50 Ar.ByanAshtord, Langston'23 EE.PlantersvilleAshmore, Daniel Garfield'50 Ag.DallasAshwore, Durward Belmont'23 CE.WeatherfordAskwey, John Nixon'25 Ag.ClarkwoodAtkins, Hardin Louis, Jr.'22 Ag.BanderaAtkinson, Andrew Chandler'24 Ag.McKinneyAtkinson, William Henry'25 EE.San AntonioAusley, George Conrad'25 Ar.ColoradoAustin, Russell Elliston'25 CE.RockwallAse, Rudolph Alfred.'23 ME.TexasoBaley, Edmond Ira.'25 EE.PlanoBailey, Lewis'25 EE.PlanoBailey, Lewis'25 EE.WacoBailey, Lewis'25 EE.Lusk, WyomingBaker, Charles Edmund.'25 EE.Lusk, WyomingBaker, John Ford.'24 Ar.Memphis, Tenn.Balard, William Lambert.'22 Ag.Braker, WyomingBaker, John Ford.'24 CE.Fort WorthBaker, John Ford.'24 CE.Tamsk, WyomingBaker, John Ford.'24 CE.Fort WorthBaker, John Ford.'24 CE.Fort WorthBaker, John Ford.'24 CE.Tamsk, Ben B.Balard, William Lambert.'22 Ag.BranderaBalard, William Lambert.'22 Ag.BranderaBalard,		
Ashford, Jonn Cecil.Sp. Ar.BryanAshmore, Daniel Garfield.Sp. Ag.DallasAshworth, Durward Belmont.23 CEWeatherfordAskey, John Nixon.23 CEWeatherfordAskey, John Nixon.24 Ag.ClarkwoodAtkinson, Andrew Chandler24 Ag.McKinneyAtkinson, Milliam Henry.25 EESan AngeloAubin, Charles T24 Ar.San AngeloAubin, Kussell Elliston.25 CERockwallAxe, Rudolph Alfred.23 METexas CityAxine, Edwin Jasper.25 CEPlanoBailey, Lewis.25 Ag.BryanBailey, Lewis.25 CEPlanoBailey, Lewis.25 Ag.BryanBailey, Lewis.25 EEWacoBailey, Lewis.25 Ag.BryanBailey, Lewis.25 Ag.BryanBailey, Lewis.25 Ag.BryanBailey, Lewis.24 Ag.GirvinBaker, Ohn Farris.24 Ag.GirvinBaker, John Farris.24 Ag.GirvinBaker, John Farris.24 Ag.GirvinBaker, John Ford.25 CEBrackcillasBallantyne, Campbell Burn.25 CEFacksonvilleBarber, Soloman Gleason.25 CETacksonvilleBarber, Soloman Gleason.25 CETacksonvilleBarber, John Harold.23 MEYoakunBarker, Wayne24 CETampiorBarber, Soloman Gleason.25 CETacksonvilleBarber, Soloman Gleason.25 CETac	Arnim, Victor Travis	'25 Ar Corpus Christi
Ashford, Jonn Cecil.Sp. Ar.BryanAshmore, Daniel Garfield.Sp. Ag.DallasAshworth, Durward Belmont.23 CEWeatherfordAskey, John Nixon.23 CEWeatherfordAskey, John Nixon.24 Ag.ClarkwoodAtkinson, Andrew Chandler24 Ag.McKinneyAtkinson, Milliam Henry.25 EESan AngeloAubin, Charles T24 Ar.San AngeloAubin, Kussell Elliston.25 CERockwallAxe, Rudolph Alfred.23 METexas CityAxine, Edwin Jasper.25 CEPlanoBailey, Lewis.25 Ag.BryanBailey, Lewis.25 CEPlanoBailey, Lewis.25 Ag.BryanBailey, Lewis.25 EEWacoBailey, Lewis.25 Ag.BryanBailey, Lewis.25 Ag.BryanBailey, Lewis.25 Ag.BryanBailey, Lewis.24 Ag.GirvinBaker, Ohn Farris.24 Ag.GirvinBaker, John Farris.24 Ag.GirvinBaker, John Farris.24 Ag.GirvinBaker, John Ford.25 CEBrackcillasBallantyne, Campbell Burn.25 CEFacksonvilleBarber, Soloman Gleason.25 CETacksonvilleBarber, Soloman Gleason.25 CETacksonvilleBarber, John Harold.23 MEYoakunBarker, Wayne24 CETampiorBarber, Soloman Gleason.25 CETacksonvilleBarber, Soloman Gleason.25 CETac	Arnold, Raymond Wesley	
Ashford, Jonn Cecil.Sp. Ar.BryanAshmore, Daniel Garfield.Sp. Ag.DallasAshworth, Durward Belmont.23 CEWeatherfordAskey, John Nixon.23 CEWeatherfordAskey, John Nixon.24 Ag.ClarkwoodAtkinson, Andrew Chandler24 Ag.McKinneyAtkinson, Milliam Henry.25 EESan AngeloAubin, Charles T24 Ar.San AngeloAubin, Kussell Elliston.25 CERockwallAxe, Rudolph Alfred.23 METexas CityAxine, Edwin Jasper.25 CEPlanoBailey, Lewis.25 Ag.BryanBailey, Lewis.25 CEPlanoBailey, Lewis.25 Ag.BryanBailey, Lewis.25 EEWacoBailey, Lewis.25 Ag.BryanBailey, Lewis.25 Ag.BryanBailey, Lewis.25 Ag.BryanBailey, Lewis.24 Ag.GirvinBaker, Ohn Farris.24 Ag.GirvinBaker, John Farris.24 Ag.GirvinBaker, John Farris.24 Ag.GirvinBaker, John Ford.25 CEBrackcillasBallantyne, Campbell Burn.25 CEFacksonvilleBarber, Soloman Gleason.25 CETacksonvilleBarber, Soloman Gleason.25 CETacksonvilleBarber, John Harold.23 MEYoakunBarker, Wayne24 CETampiorBarber, Soloman Gleason.25 CETacksonvilleBarber, Soloman Gleason.25 CETac	Ashburn, Redman Franklin	'23 EE Denison
Baccus, Ira Bishop.'25 EEPlanoBailey, Edmond Ira'25 EEWacoBailey, Lewis'24 CERuskBainbridge, Eugene Magill'24 CERuskBainbridge, Eugene Magill'24 EESweetwaterBairfield, Charles E'23 AAClarendonBaker, Dayton Uri'25 EEHaskellBaker, John Farris'24 AgGirvinBaker, John Ford'24 CEFort WorthBaker, Thomas Harrison, Jr.'22 ArMemphis, Tenn.Ballantyne, Campbell Burn'25 CEBracksttvilleBallantyne, Campbell Burn'25 CEBrackstownBarber, Soloman Gleason'25 CESpringtownBarber, Soloman Gleason'25 CEJackscowilleBarker, Walliam Lason'25 CETampico, Mex.Barker, WayneSp. EERangerBarker, WayneSp. EERangerBarker, Wayne'25 AAMcKinneyBarnes, Joe Wellington, Jr'25 AAMcKinneyBarnes, Thomas Gerald'25 AGMcKinneyBarnes, Thomas Gerald'25 AgDallasBartlett, Joseph Webster'23 ChEDallasBartlett, Robert Wilbur'25 AgDallasBartlett, Robert Wilbur'25 AgBallasBartlett, Slas Conoly'24 AgEmalesBartlett, Sobert Wilbur'25 AgBallasBartlett, Robert Wilbur'25 AgBallasBartlett, Robert Wilbur'25 AgBastropBartlett, Slas Conoly'24 AgEmallas <td>Ashford John Cecil</td> <td>Sp Ar Bryan</td>	Ashford John Cecil	Sp Ar Bryan
Baccus, Ira Bishop.'25 EEPlanoBailey, Edmond Ira'25 EEWacoBailey, Lewis'24 CERuskBainbridge, Eugene Magill'24 CERuskBainbridge, Eugene Magill'24 EESweetwaterBairfield, Charles E'23 AAClarendonBaker, Dayton Uri'25 EEHaskellBaker, John Farris'24 AgGirvinBaker, John Ford'24 CEFort WorthBaker, Thomas Harrison, Jr.'22 ArMemphis, Tenn.Ballantyne, Campbell Burn'25 CEBracksttvilleBallantyne, Campbell Burn'25 CEBrackstownBarber, Soloman Gleason'25 CESpringtownBarber, Soloman Gleason'25 CEJackscowilleBarker, Walliam Lason'25 CETampico, Mex.Barker, WayneSp. EERangerBarker, WayneSp. EERangerBarker, Wayne'25 AAMcKinneyBarnes, Joe Wellington, Jr'25 AAMcKinneyBarnes, Thomas Gerald'25 AGMcKinneyBarnes, Thomas Gerald'25 AgDallasBartlett, Joseph Webster'23 ChEDallasBartlett, Robert Wilbur'25 AgDallasBartlett, Robert Wilbur'25 AgBallasBartlett, Slas Conoly'24 AgEmalesBartlett, Sobert Wilbur'25 AgBallasBartlett, Robert Wilbur'25 AgBallasBartlett, Robert Wilbur'25 AgBastropBartlett, Slas Conoly'24 AgEmallas <td>Ashford Langston</td> <td>'23 FF Plantoravillo</td>	Ashford Langston	'23 FF Plantoravillo
Baccus, Ira Bishop.'25 EEPlanoBailey, Edmond Ira'25 EEWacoBailey, Lewis'24 CERuskBainbridge, Eugene Magill'24 CERuskBainbridge, Eugene Magill'24 EESweetwaterBairfield, Charles E'23 AAClarendonBaker, Dayton Uri'25 EEHaskellBaker, John Farris'24 AgGirvinBaker, John Ford'24 CEFort WorthBaker, Thomas Harrison, Jr.'22 ArMemphis, Tenn.Ballantyne, Campbell Burn'25 CEBracksttvilleBallantyne, Campbell Burn'25 CEBrackstownBarber, Soloman Gleason'25 CESpringtownBarber, Soloman Gleason'25 CEJackscowilleBarker, Walliam Lason'25 CETampico, Mex.Barker, WayneSp. EERangerBarker, WayneSp. EERangerBarker, Wayne'25 AAMcKinneyBarnes, Joe Wellington, Jr'25 AAMcKinneyBarnes, Thomas Gerald'25 AGMcKinneyBarnes, Thomas Gerald'25 AgDallasBartlett, Joseph Webster'23 ChEDallasBartlett, Robert Wilbur'25 AgDallasBartlett, Robert Wilbur'25 AgBallasBartlett, Slas Conoly'24 AgEmalesBartlett, Sobert Wilbur'25 AgBallasBartlett, Robert Wilbur'25 AgBallasBartlett, Robert Wilbur'25 AgBastropBartlett, Slas Conoly'24 AgEmallas <td>Ashmana Daniel Canfold</td> <td>Sp. An. Dallar</td>	Ashmana Daniel Canfold	Sp. An. Dallar
Baccus, Ira Bishop.'25 EEPlanoBailey, Edmond Ira'25 EEWacoBailey, Lewis'24 CERuskBainbridge, Eugene Magill'24 CERuskBainbridge, Eugene Magill'24 EESweetwaterBairfield, Charles E'23 AAClarendonBaker, Dayton Uri'25 EEHaskellBaker, John Farris'24 AgGirvinBaker, John Ford'24 CEFort WorthBaker, Thomas Harrison, Jr.'22 ArMemphis, Tenn.Ballantyne, Campbell Burn'25 CEBracksttvilleBallantyne, Campbell Burn'25 CEBrackstownBarber, Soloman Gleason'25 CESpringtownBarber, Soloman Gleason'25 CEJackscowilleBarker, Walliam Lason'25 CETampico, Mex.Barker, WayneSp. EERangerBarker, WayneSp. EERangerBarker, Wayne'25 AAMcKinneyBarnes, Joe Wellington, Jr'25 AAMcKinneyBarnes, Thomas Gerald'25 AGMcKinneyBarnes, Thomas Gerald'25 AgDallasBartlett, Joseph Webster'23 ChEDallasBartlett, Robert Wilbur'25 AgDallasBartlett, Robert Wilbur'25 AgBallasBartlett, Slas Conoly'24 AgEmalesBartlett, Sobert Wilbur'25 AgBallasBartlett, Robert Wilbur'25 AgBallasBartlett, Robert Wilbur'25 AgBastropBartlett, Slas Conoly'24 AgEmallas <td>Ashmore, Damer Garneid</td> <td> Sp. Ag Dallas</td>	Ashmore, Damer Garneid	Sp. Ag Dallas
Baccus, Ira Bishop.'25 EEPlanoBailey, Edmond Ira'25 EEWacoBailey, Lewis'24 CERuskBainbridge, Eugene Magill'24 CERuskBainbridge, Eugene Magill'24 EESweetwaterBairfield, Charles E'23 AAClarendonBaker, Dayton Uri'25 EEHaskellBaker, John Farris'24 AgGirvinBaker, John Ford'24 CEFort WorthBaker, Thomas Harrison, Jr.'22 ArMemphis, Tenn.Ballantyne, Campbell Burn'25 CEBracksttvilleBallantyne, Campbell Burn'25 CEBrackstownBarber, Soloman Gleason'25 CESpringtownBarber, Soloman Gleason'25 CEJackscowilleBarker, Walliam Lason'25 CETampico, Mex.Barker, WayneSp. EERangerBarker, WayneSp. EERangerBarker, Wayne'25 AAMcKinneyBarnes, Joe Wellington, Jr'25 AAMcKinneyBarnes, Thomas Gerald'25 AGMcKinneyBarnes, Thomas Gerald'25 AgDallasBartlett, Joseph Webster'23 ChEDallasBartlett, Robert Wilbur'25 AgDallasBartlett, Robert Wilbur'25 AgBallasBartlett, Slas Conoly'24 AgEmalesBartlett, Sobert Wilbur'25 AgBallasBartlett, Robert Wilbur'25 AgBallasBartlett, Robert Wilbur'25 AgBastropBartlett, Slas Conoly'24 AgEmallas <td>Ashworth, Durward Belmont</td> <td></td>	Ashworth, Durward Belmont	
Baccus, Ira Bishop.'25 EEPlanoBailey, Edmond Ira'25 EEWacoBailey, Lewis'24 CERuskBainbridge, Eugene Magill'24 CERuskBainbridge, Eugene Magill'24 EESweetwaterBairfield, Charles E'23 AAClarendonBaker, Dayton Uri'25 EEHaskellBaker, John Farris'24 AgGirvinBaker, John Ford'24 CEFort WorthBaker, Thomas Harrison, Jr.'22 ArMemphis, Tenn.Ballantyne, Campbell Burn'25 CEBracksttvilleBallantyne, Campbell Burn'25 CEBrackstownBarber, Soloman Gleason'25 CESpringtownBarber, Soloman Gleason'25 CEJackscowilleBarker, Walliam Lason'25 CETampico, Mex.Barker, WayneSp. EERangerBarker, WayneSp. EERangerBarker, Wayne'25 AAMcKinneyBarnes, Joe Wellington, Jr'25 AAMcKinneyBarnes, Thomas Gerald'25 AGMcKinneyBarnes, Thomas Gerald'25 AgDallasBartlett, Joseph Webster'23 ChEDallasBartlett, Robert Wilbur'25 AgDallasBartlett, Robert Wilbur'25 AgBallasBartlett, Slas Conoly'24 AgEmalesBartlett, Sobert Wilbur'25 AgBallasBartlett, Robert Wilbur'25 AgBallasBartlett, Robert Wilbur'25 AgBastropBartlett, Slas Conoly'24 AgEmallas <td>Askey, John Nixon</td> <td></td>	Askey, John Nixon	
Baccus, Ira Bishop.'25 EEPlanoBailey, Edmond Ira'25 EEWacoBailey, Lewis'24 CERuskBainbridge, Eugene Magill'24 CERuskBainbridge, Eugene Magill'24 EESweetwaterBairfield, Charles E'23 AAClarendonBaker, Dayton Uri'25 EEHaskellBaker, John Farris'24 AgGirvinBaker, John Ford'24 CEFort WorthBaker, Thomas Harrison, Jr.'22 ArMemphis, Tenn.Ballantyne, Campbell Burn'25 CEBracksttvilleBallantyne, Campbell Burn'25 CEBrackstownBarber, Soloman Gleason'25 CESpringtownBarber, Soloman Gleason'25 CEJackscowilleBarker, Walliam Lason'25 CETampico, Mex.Barker, WayneSp. EERangerBarker, WayneSp. EERangerBarker, Wayne'25 AAMcKinneyBarnes, Joe Wellington, Jr'25 AAMcKinneyBarnes, Thomas Gerald'25 AGMcKinneyBarnes, Thomas Gerald'25 AgDallasBartlett, Joseph Webster'23 ChEDallasBartlett, Robert Wilbur'25 AgDallasBartlett, Robert Wilbur'25 AgBallasBartlett, Slas Conoly'24 AgEmalesBartlett, Sobert Wilbur'25 AgBallasBartlett, Robert Wilbur'25 AgBallasBartlett, Robert Wilbur'25 AgBastropBartlett, Slas Conoly'24 AgEmallas <td>Atkins, Hardin Louis, Jr</td> <td>'22 AgBandera</td>	Atkins, Hardin Louis, Jr	'22 AgBandera
Baccus, Ira Bishop.'25 EEPlanoBailey, Edmond Ira'25 EEWacoBailey, Lewis'24 CERuskBainbridge, Eugene Magill'24 CERuskBainbridge, Eugene Magill'24 EESweetwaterBairfield, Charles E'23 AAClarendonBaker, Dayton Uri'25 EEHaskellBaker, John Farris'24 AgGirvinBaker, John Ford'24 CEFort WorthBaker, Thomas Harrison, Jr.'22 ArMemphis, Tenn.Ballantyne, Campbell Burn'25 CEBracksttvilleBallantyne, Campbell Burn'25 CEBrackstownBarber, Soloman Gleason'25 CESpringtownBarber, Soloman Gleason'25 CEJackscowilleBarker, Walliam Lason'25 CETampico, Mex.Barker, WayneSp. EERangerBarker, WayneSp. EERangerBarker, Wayne'25 AAMcKinneyBarnes, Joe Wellington, Jr'25 AAMcKinneyBarnes, Thomas Gerald'25 AGMcKinneyBarnes, Thomas Gerald'25 AgDallasBartlett, Joseph Webster'23 ChEDallasBartlett, Robert Wilbur'25 AgDallasBartlett, Robert Wilbur'25 AgBallasBartlett, Slas Conoly'24 AgEmalesBartlett, Sobert Wilbur'25 AgBallasBartlett, Robert Wilbur'25 AgBallasBartlett, Robert Wilbur'25 AgBastropBartlett, Slas Conoly'24 AgEmallas <td>Atkinson, Andrew Chandler</td> <td>'24 Ag McKinney</td>	Atkinson, Andrew Chandler	'24 Ag McKinney
Baccus, Ira Bishop.'25 EEPlanoBailey, Edmond Ira'25 EEWacoBailey, Lewis'24 CERuskBainbridge, Eugene Magill'24 CERuskBainbridge, Eugene Magill'24 EESweetwaterBairfield, Charles E'23 AAClarendonBaker, Dayton Uri'25 EEHaskellBaker, John Farris'24 AgGirvinBaker, John Ford'24 CEFort WorthBaker, Thomas Harrison, Jr.'22 ArMemphis, Tenn.Ballantyne, Campbell Burn'25 CEBracksttvilleBallantyne, Campbell Burn'25 CEBrackstownBarber, Soloman Gleason'25 CESpringtownBarber, Soloman Gleason'25 CEJackscowilleBarker, Walliam Lason'25 CETampico, Mex.Barker, WayneSp. EERangerBarker, WayneSp. EERangerBarker, Wayne'25 AAMcKinneyBarnes, Joe Wellington, Jr'25 AAMcKinneyBarnes, Thomas Gerald'25 AGMcKinneyBarnes, Thomas Gerald'25 AgDallasBartlett, Joseph Webster'23 ChEDallasBartlett, Robert Wilbur'25 AgDallasBartlett, Robert Wilbur'25 AgBallasBartlett, Slas Conoly'24 AgEmalesBartlett, Sobert Wilbur'25 AgBallasBartlett, Robert Wilbur'25 AgBallasBartlett, Robert Wilbur'25 AgBastropBartlett, Slas Conoly'24 AgEmallas <td>Atkinson, William Henry</td> <td>'25 EE San Angelo</td>	Atkinson, William Henry	'25 EE San Angelo
Baccus, Ira Bishop.'25 EEPlanoBailey, Edmond Ira'25 EEWacoBailey, Lewis'24 CERuskBainbridge, Eugene Magill'24 CERuskBainbridge, Eugene Magill'24 EESweetwaterBairfield, Charles E'23 AAClarendonBaker, Dayton Uri'25 EEHaskellBaker, John Farris'24 AgGirvinBaker, John Ford'24 CEFort WorthBaker, Thomas Harrison, Jr.'22 ArMemphis, Tenn.Ballantyne, Campbell Burn'25 CEBracksttvilleBallantyne, Campbell Burn'25 CEBrackstownBarber, Soloman Gleason'25 CESpringtownBarber, Soloman Gleason'25 CEJackscowilleBarker, Walliam Lason'25 CETampico, Mex.Barker, WayneSp. EERangerBarker, WayneSp. EERangerBarker, Wayne'25 AAMcKinneyBarnes, Joe Wellington, Jr'25 AAMcKinneyBarnes, Thomas Gerald'25 AGMcKinneyBarnes, Thomas Gerald'25 AgDallasBartlett, Joseph Webster'23 ChEDallasBartlett, Robert Wilbur'25 AgDallasBartlett, Robert Wilbur'25 AgBallasBartlett, Slas Conoly'24 AgEmalesBartlett, Sobert Wilbur'25 AgBallasBartlett, Robert Wilbur'25 AgBallasBartlett, Robert Wilbur'25 AgBastropBartlett, Slas Conoly'24 AgEmallas <td>Aubin Charles T</td> <td>'24 Ar San Antonio</td>	Aubin Charles T	'24 Ar San Antonio
Baccus, Ira Bishop.'25 EEPlanoBailey, Edmond Ira'25 EEWacoBailey, Lewis'24 CERuskBainbridge, Eugene Magill'24 CERuskBainfield, Charles E'23 AAClarendonBaker, Dayton Uri'25 EELusk, WyomingBaker, John Farris'24 AgGirvinBaker, John Farris'24 AgGirvinBaker, John Farris'24 AgGirvinBaker, John Farris'24 CEFort WorthBaker, John Farris'24 CEBrackettvilleBallantyne, Campbell Burn'25 CEBrackettvilleBallantyne, Campbell Burn'25 CEBrackstrvilleBallard, William Lambert'22 AgDallasBaller, Soloman Gleason'25 CEJacksonvilleBarber, Soloman Gleason'25 CETampico, Mex.Barker, WayneSp. EERangerBarker, Wayne'22 AgTaylorBarker, Wayne'25 AAKerensBarnes, Joe Wellington, Jr'25 AAMcKinneyBarnes, Thomas Gerald'25 AgPort ArthurBarnes, Thomas Gerald'24 AgEngBartelt, Marion Bland'24 AgBallasBartlett, Robert Wilbur'25 AgBallasBartlett, Robert Wilbur'25 AgBallasBartlett, Silas Conoly'24 AgColge StationBass, Nelson Ives'22 AgCollasBartlett, Solar Lobert Wilbur'25 AgBastropBarton, Julian Cox'25 CECorsicana	Auglar George Conred	<sup>225</sup> An Colorado
Baccus, Ira Bishop.'25 EEPlanoBailey, Edmond Ira'25 EEWacoBailey, Lewis'24 CERuskBainbridge, Eugene Magill'24 CERuskBainfield, Charles E'23 AAClarendonBaker, Dayton Uri'25 EELusk, WyomingBaker, John Farris'24 AgGirvinBaker, John Farris'24 AgGirvinBaker, John Farris'24 AgGirvinBaker, John Farris'24 CEFort WorthBaker, John Farris'24 CEBrackettvilleBallantyne, Campbell Burn'25 CEBrackettvilleBallantyne, Campbell Burn'25 CEBrackstrvilleBallard, William Lambert'22 AgDallasBaller, Soloman Gleason'25 CEJacksonvilleBarber, Soloman Gleason'25 CETampico, Mex.Barker, WayneSp. EERangerBarker, Wayne'22 AgTaylorBarker, Wayne'25 AAKerensBarnes, Joe Wellington, Jr'25 AAMcKinneyBarnes, Thomas Gerald'25 AgPort ArthurBarnes, Thomas Gerald'24 AgEngBartelt, Marion Bland'24 AgBallasBartlett, Robert Wilbur'25 AgBallasBartlett, Robert Wilbur'25 AgBallasBartlett, Silas Conoly'24 AgColge StationBass, Nelson Ives'22 AgCollasBartlett, Solar Lobert Wilbur'25 AgBastropBarton, Julian Cox'25 CECorsicana	Austin Denge Colliau	
Baccus, Ira Bishop.'25 EEPlanoBailey, Edmond Ira'25 EEWacoBailey, Lewis'24 CERuskBainbridge, Eugene Magill'24 CERuskBainbridge, Eugene Magill'24 EESweetwaterBairfield, Charles E'23 AAClarendonBaker, Dayton Uri'25 EELusk, WyomingBaker, John Farris'24 AgGirvinBaker, John Ford'24 CEFort WorthBallartyne, Campbell Burn'25 CEBrackettvilleBallartyne, Campbell Burn'25 CEBrackettvilleBallartyne, Campbell Burn'25 CEBrackettvilleBallartyne, Sen B'25 CESpringtownBarber, Soloman Gleason'25 CEJacksonvilleBarber, Soloman Gleason'25 CETampico, Mex.Barker, WayneSp. EERangerBarker, WayneSp. EERangerBarker, Wayne'25 AAKerensBarnes, Joe Wellington, Jr'25 AAMcKinneyBarnes, Thomas Gerald'25 AAMcKinneyBarnes, Thomas Gerald'24 AgEngBartelt, Joseph Webster'23 ChEDallasBartlett, Robert Wilbur'25 AgPort ArthurBartelt, Slas Conoly'24 AgEngBartlett, Slas Conoly'24 AgEngBarteltt, Joseph Webster'23 CEDallasBartlett, Slas Conoly'24 AgEngBartett, Solar Musin'25 AgBastropBarton, Julian Cox'25 CGCorsicanaB	Austin, Russell Elliston	25 CE Rockwall
Baccus, Ira Bishop.'25 EEPlanoBailey, Edmond Ira'25 EEWacoBailey, Lewis'24 CERuskBainbridge, Eugene Magill'24 CERuskBainbridge, Eugene Magill'24 EESweetwaterBairfield, Charles E'23 AAClarendonBaker, Dayton Uri'25 EELusk, WyomingBaker, John Farris'24 AgGirvinBaker, John Ford'24 CEFort WorthBallartyne, Campbell Burn'25 CEBrackettvilleBallartyne, Campbell Burn'25 CEBrackettvilleBallartyne, Campbell Burn'25 CEBrackettvilleBallartyne, Sen B'25 CESpringtownBarber, Soloman Gleason'25 CEJacksonvilleBarber, Soloman Gleason'25 CETampico, Mex.Barker, WayneSp. EERangerBarker, WayneSp. EERangerBarker, Wayne'25 AAKerensBarnes, Joe Wellington, Jr'25 AAMcKinneyBarnes, Thomas Gerald'25 AAMcKinneyBarnes, Thomas Gerald'24 AgEngBartelt, Joseph Webster'23 ChEDallasBartlett, Robert Wilbur'25 AgPort ArthurBartelt, Slas Conoly'24 AgEngBartlett, Slas Conoly'24 AgEngBarteltt, Joseph Webster'23 CEDallasBartlett, Slas Conoly'24 AgEngBartett, Solar Musin'25 AgBastropBarton, Julian Cox'25 CGCorsicanaB	Axe, Rudolph Alfred	23 ME Texas City
Baccus, Ira Bishop.'25 EEPlanoBailey, Edmond Ira'25 EEWacoBailey, Lewis'24 CERuskBainbridge, Eugene Magill'24 CERuskBainbridge, Eugene Magill'24 EESweetwaterBairfield, Charles E'23 AAClarendonBaker, Dayton Uri'25 EELusk, WyomingBaker, John Farris'24 AgGirvinBaker, John Ford'24 CEFort WorthBallartyne, Campbell Burn'25 CEBrackstvilleBallartyne, Campbell Burn'25 CEBrackstvilleBallartyne, Campbell Burn'25 CEBrackstvilleBallartyne, Cambell Burn'25 CEBrackstvilleBallartyne, Combell Burn'25 CESpringtownBarber, Soloman Gleason'25 CEJacksonvilleBarber, Soloman Gleason'25 CETampico, Mex.Barker, WayneSp. EERangerBarker, Wayne'23 MEYoakumBarker, Wayne'25 AAKerensBarnes, Joe Wellington, Jr'25 AAMcKinneyBarnes, Thomas Gerald'25 AgPort ArthurBarnes, Thomas Gerald'25 AgDallasBartlett, Joseph Webster'23 CEDallasBartlett, Robert Wilbur'25 AgPort ArthurBarteron, L. HC1Barteltt, Joseph Webster'23 CEDallasBartlett, Robert Wilbur'25 AgBastropBartlett, Solas Conoly'24 AgEnBarteltt, Solas Conoly'24 AgEn	Axline, Edwin Jasper	'25 CE Houston
Barker, Wade Wilson		·
Barker, Wade Wilson	Baccus. Ira Bishop	'25 EE
Barker, Wade Wilson	Bailey Edmond Ira	'25 EE Waco
Barker, Wade Wilson	Bailoy Lowis	'25 Ag Bryon
Barker, Wade Wilson	Dailey, Dewis	20 Ag Diyan
Barker, Wade Wilson	Daney, Fercy Sinten	204 DE
Barker, Wade Wilson	Bainbridge, Eugene Magili	
Barker, Wade Wilson	Bairfield, Charles E	
Barker, Wade Wilson	Baker, Charles Edmund	25 EE Lusk, Wyoming
Barker, Wade Wilson	Baker, Dayton Uri	'25 EE Haskell
Barker, Wade Wilson	Baker, John Farris	.'24 Ag Girvin
Barker, wade wilson	Baker John Ford	'24 CE Fort Worth
Barker, wade wilson	Baker Thomas Harrison Ir	'23 Ar Momphis Tonn
Barker, wade wilson	Daker, Thomas Hamson, J	205 CE Draslastarilla
Barker, Wade Wilson	Ballantyne, Campbell Burn	
Barker, Wade Wilson	Ballard, William Lampert	
Barker, Wade Wilson	Ballew, William Fletcher	
Barker, Wade Wilson	Banks, Ben B	25 EE Springtown
Barker, Wade Wilson	Barber, Soloman Gleason	25 CE Jacksonville
Barker, Wade Wilson	Barbour, William Lason	'25 CE. Tampico, Mex.
Barker, Wade Wilson	Bare John Harold	23 ME Yoakum
Barker, wade wilson	Barker Wayne	Sn EE Banger
Barton, D. H.C 1Bartholomew, Robert O.'24 ME.Bartholomew, Robert O.'23 ChE.Bartlett, Joseph Webster.'23 ChE.Bartlett, Robert Wilbur.'25 ME.Bartlett, Silas Conoly.'24 AA.MarlinBarton, Jack, Jr.'25 Ag.Barton, Julian Cox.'25 CE.CorsicanaBaskett, John Lewis.'22 CE.Baskin, Benajah Jefferson.'22 Ag.College StationBass, Nelson Ives.'23 EE.HubbardBatis, Noah Ira.'25 AA.San AugustineBatot, Milton John.'25 Ar.Bauer, William Clifford.C 1.Baum, Oscar Samuel.H 2.HoustonBaum, Oscar Samuel.H 2.Baum, Oscar Samuel.H 2.Baum CoultonHouston	Barker, Wayne Wilson	'24 Ag Toylor
Barton, D. H.       C 1       Failler         Bartholomew, Robert O.       '24 ME       Dallas         Bartlett, Joseph Webster.       '23 ChE       Dallas         Bartlett, Robert Wilbur.       '25 ME       Dallas         Bartlett, Silas Conoly.       '24 AA       Marlin         Barton, Jack, Jr       '25 Ag       Bastrop         Barton, Julian Cox.       '25 CE       Corsicana         Baskett, John Lewis.       '22 CE       Dallas         Baskin, Benajah Jefferson.       '22 Ag       College Station         Bass, Nelson Ives.       '23 EE       Hubbard         Batis, Noah Ira       '25 AA       San Augustine         Batot, Milton John       '25 Ar       Hondo         Baty, James Bernard       '24 CE       Taylor         Bauer, William Clifford       C 1       Belton         Baum, Oscar Samuel       H 2       Moutton	Darker, Wade Wilson	205 A A Warang
Barton, D. H.       C 1       Failler         Bartholomew, Robert O.       '24 ME       Dallas         Bartlett, Joseph Webster.       '23 ChE       Dallas         Bartlett, Robert Wilbur.       '25 ME       Dallas         Bartlett, Silas Conoly.       '24 AA       Marlin         Barton, Jack, Jr       '25 Ag       Bastrop         Barton, Jack, Jr       '25 CE       Corsicana         Baskett, John Lewis.       '22 CE       Dallas         Baskett, John Lewis.       '22 CE       Dallas         Baskett, John Lewis.       '22 CE       Dallas         Bask, Benajah Jefferson.       '22 Ag       College Station         Bass, Nelson Ives.       '23 EE       Hubbard         Bate, Irion.       '24 EE       San Augustine         Batis, Noah Ira.       '25 AA       Sanger         Batot, Milton John.       '25 Ar.       Hondo         Baty, James Bernard.       '24 CE       Taylor         Bauer, William Clifford.       C 1       Belton         Baum, Oscar Samuel       H 2       Moutton	Barlow, Hayden Samuel	25 AA Kerens
Barton, D. H.       C 1       Failler         Bartholomew, Robert O.       '24 ME       Dallas         Bartlett, Joseph Webster.       '23 ChE       Dallas         Bartlett, Robert Wilbur.       '25 ME       Dallas         Bartlett, Silas Conoly.       '24 AA       Marlin         Barton, Jack, Jr       '25 Ag       Bastrop         Barton, Jack, Jr       '25 CE       Corsicana         Baskett, John Lewis.       '22 CE       Dallas         Baskett, John Lewis.       '22 CE       Dallas         Baskett, John Lewis.       '22 CE       Dallas         Bask, Benajah Jefferson.       '22 Ag       College Station         Bass, Nelson Ives.       '23 EE       Hubbard         Bate, Irion.       '24 EE       San Augustine         Batis, Noah Ira.       '25 AA       Sanger         Batot, Milton John.       '25 Ar.       Hondo         Baty, James Bernard.       '24 CE       Taylor         Bauer, William Clifford.       C 1       Belton         Baum, Oscar Samuel       H 2       Moutton	Barnes, Joe Wellington, Jr.	
Barton, D. H.       C 1       Failler         Bartholomew, Robert O.       '24 ME       Dallas         Bartlett, Joseph Webster.       '23 ChE       Dallas         Bartlett, Robert Wilbur.       '25 ME       Dallas         Bartlett, Silas Conoly.       '24 AA       Marlin         Barton, Jack, Jr       '25 Ag       Bastrop         Barton, Jack, Jr       '25 CE       Corsicana         Baskett, John Lewis.       '22 CE       Dallas         Baskett, John Lewis.       '22 CE       Dallas         Baskett, John Lewis.       '22 CE       Dallas         Bask, Benajah Jefferson.       '22 Ag       College Station         Bass, Nelson Ives.       '23 EE       Hubbard         Bate, Irion.       '24 EE       San Augustine         Batis, Noah Ira.       '25 AA       Sanger         Batot, Milton John.       '25 Ar.       Hondo         Baty, James Bernard.       '24 CE       Taylor         Bauer, William Clifford.       C 1       Belton         Baum, Oscar Samuel       H 2       Moutton	Barnes, Thomas Gerald	25 Ag Port Arthur
Barton, D. H.       C 1       Failler         Bartholomew, Robert O.       '24 ME       Dallas         Bartlett, Joseph Webster.       '23 ChE       Dallas         Bartlett, Robert Wilbur.       '25 ME       Dallas         Bartlett, Silas Conoly.       '24 AA       Marlin         Barton, Jack, Jr       '25 Ag       Bastrop         Barton, Jack, Jr       '25 CE       Corsicana         Baskett, John Lewis.       '22 CE       Dallas         Baskett, John Lewis.       '22 CE       Dallas         Baskett, John Lewis.       '22 CE       Dallas         Bask, Benajah Jefferson.       '22 Ag       College Station         Bass, Nelson Ives.       '23 EE       Hubbard         Bate, Irion.       '24 EE       San Augustine         Batis, Noah Ira.       '25 AA       Sanger         Batot, Milton John.       '25 Ar.       Hondo         Baty, James Bernard.       '24 CE       Taylor         Bauer, William Clifford.       C 1       Belton         Baum, Oscar Samuel       H 2       Moutton	Barnett, Marion Bland	'24 Ag. Eng McKinney
Barton, D. H.       C 1       Failler         Bartholomew, Robert O.       '24 ME       Dallas         Bartlett, Joseph Webster.       '23 ChE       Dallas         Bartlett, Robert Wilbur.       '25 ME       Dallas         Bartlett, Silas Conoly.       '24 AA       Marlin         Barton, Jack, Jr       '25 Ag       Bastrop         Barton, Julian Cox.       '25 CE       Corsicana         Baskett, John Lewis.       '22 CE       Dallas         Baskin, Benajah Jefferson.       '22 Ag       College Station         Bass, Nelson Ives.       '23 EE       Hubbard         Batis, Noah Ira       '25 AA       San Augustine         Batot, Milton John       '25 Ar       Hondo         Baty, James Bernard       '24 CE       Taylor         Bauer, William Clifford       C 1       Belton         Baum, Oscar Samuel       H 2       Moutton	Barrenechea, Francisco A	M 1 Mexico City. Mex.
Baum, Oscar Samuel	Barron, L. H.	C 1 Palmer
Baum, Oscar Samuel	Bartholomew Robert O	'24 ME Dallas
Baum, Oscar Samuel	Bartlott Issoph Wohston	292 ChF Dollog
Baum, Oscar Samuel	Dartlett, Joseph Webster	205 ME Dallas
Baum, Oscar Samuel	Bartlett, Robert wildur	
Baum, Oscar Samuel	Bartlett, Silas Conoly	
Baum, Oscar Samuel	Barton, Jack, Jr.	25 Ag Bastrop
Baum, Oscar Samuel	Barton, Julian Cox	25 CE Corsicana
Baum, Oscar Samuel	Baskett, John Lewis	
Baum, Oscar Samuel	Baskin Benaiah Jefferson	'22 Ag College Station
Baum, Oscar Samuel	Bass Nolson Ives	22 FF Hubbord
Baum, Oscar Samuel	Dass, Neison IVes	204 TEL
Baum, Oscar Samuel	Date, Mark Inc.	
Baum, Oscar Samuel	Batis, Noan Ira	25 AA Sanger
Baum, Oscar Samuel	Batot, Milton John	25 Ar Hondo
Baum, Oscar Samuel	Baty, James Bernard	'24 CE Taylor
Baum, Oscar Samuel	Bauer, William Clifford	C 1Belton
Baur, Louis William August	Baum, Oscar Samuel	H 2 Houston
Baxt, David	Baur Louis William August	'22 ME Moulton
Bayley, Clyde	Bayt David	'95 Ag San Antonio
Dayley, Oryde	Parlor Cludo	95 FF Coldthereito
	Dayley, Olyue	20 EE Goluinwalle

# STUDENTS.

Beale, Requa Leonard.'23Beavan, Reginald Arthur.CBeazley, William Henry.'23Beckworth, Hansel Thomas.'25Beesley, Ben Branson.'22Behymer, Malcolm Harold.'25Belt, Daniel Grafton.'25Bell, Francis Leonard.'22Belnett, Henry Clair.'25Bennett, Henry Clair.'25Bennett, Henry Clair.'25Bernett, Elmore Frederick.'25Berger, Lewis Audrey.'25Bergyman, James Otto.'25Berry, Robert EmetteSpBerryman, Christopher Columbus.SpBertymand Lewis Orm.'24	EEFort Worth
Beavan, Reginald Arthur C	1Plas Celyn, England
Beazley, William Henry'23	MECrockett
Beckworth, Hansel Thomas	AgSinton
Beesley, Ben Branson'22	CELancaster
Behvmer, Malcolm Harold	EELongview
Belcher, William Ira C	1Sanderson
Bell, Daniel Grafton	EE Hereford
Bell, Francis Leonard	CE. Marshall
Bell, Henry Newton, Jr. '25	Ag Saversville
Bennett Henry Clair '25	EE Fort Worth
Bennett Vol Jr '22	Ag Cuero
Benson Samuel Virginius '25	CE Camden Arkansas
Berendt Elmore Frederick '25	EE San Antonio
Borger Lewis Audrey '25	Ag Flatonia
Bergman James Otto '25	FE Livingston
Borry Edward McKinley '25	AA Groveton
Borry Robert Emotto	Ag Morquito
Borryman Christophor Columbus	Ag College Station
Bortrand Louis Ogo	EF Son Antonio
Dertrand, Louis Oge	TE Houston
Dest, Michard Albin	AA Connus Christi
Devnon, Eugene 1 nomas Sp	E E E E E E E E E E E E E E E E E E E
Direction Transfer Tr	CEEra
Biggs, Louie Lesile	CESan Antonio
Billingsley, Bruce Calder	MEGalveston
Bilsing, Sherman W	. Ag College Station
Bimmerman, Harry Gordon	ChESherman
Bimmerman, Paul Henry	ChESherman
Birdwell, Leroy	Ag. EngOverton
Bizzell, William Sangster	CECollege Station
Black Alan Rolland (94	
Diack, man Romanu	CEIngleside
Black, John Palmer, Jr	EETemple
Black, John Palmer, Jr	EE Temple 1
Black, John Palmer, Jr	EE Temple 1 Morgan . Ag College Station
Black, John Palmer, Jr	EE Temple 1
Berry, Robert Emette       Sp         Berryman, Christopher Columbus.       Sp         Bertrand, Louis Oge.       '24         Best, Richard Albin.       '23         Beynon, Eugene Thomas.       Sp         Bickel, Aldis       '25         Biggs, Louie Leslie.       '25         Billingsley, Bruce Calder.       '22         Bilsing, Sherman W.       Sp         Bimmerman, Harry Gordon.       '22         Birdwell, Leroy.       '24         Bizzell, William Sangster.       '22         Black, Alan Rolland.       '24         Black, John Palmer, Jr.       '25         Black, Thomas Reaves.       C         Blackberg, Sol Nathan	CEIngleside         EETemple         1Morgan         .AgCollege Station         2Delavan, Wisconsin         Ag. Eng.
Diankinship, wanace B	Ag. EngLubbock
Blann, Richard Adell.       '25         Blann, Richard Adell.       '25         Blaschke, Raymond George.       C         Blevins, Edward.       '25         Blount, Wilfred Garrison.       '23         Blum, Charles James.       '23         Bock, Isadore.       '25         Bodine, Newton Barnart.       '24         Boger, Allen Dickson.       '24         Bone. Harry de Ponta.       '25	Ag. EngLubbock EEMarlin 2Skidmore EEDeQueen, Arkansas AgNacogdoches EESan Antonio MEDallas CESan Angelo MEDallas
Blann, Richard Adell.       '25         Blann, Richard Adell.       '25         Blaschke, Raymond George.       C         Blevins, Edward.       '25         Blount, Wilfred Garrison.       '23         Blum, Charles James.       '23         Bock, Isadore.       '25         Bodine, Newton Barnart.       '24         Boger, Allen Dickson.       '24         Bone. Harry de Ponta.       '25	Ag. EngLubbock EEMarlin 2Skidmore EEDeQueen, Arkansas AgNacogdoches EESan Antonio MEDallas CESan Angelo MEDallas
Blann, Richard Adell.       '25         Blann, Richard Adell.       '25         Blaschke, Raymond George.       C         Blevins, Edward.       '25         Blount, Wilfred Garrison.       '23         Blum, Charles James.       '23         Bock, Isadore.       '25         Bodine, Newton Barnart.       '24         Boger, Allen Dickson.       '24         Bone, Harry de Ponta.       '25         Boney, Joseph Warren.       Sp	Ag. EngLubbock         EESkidmore         EESkidmore         EESan Antonio         MEDallas         CESan Angelo         MEVernon         CEDallas        Vernon         CEBallas
Blann, Richard Adell.       '25         Blann, Richard Adell.       '25         Blaschke, Raymond George.       C         Blevins, Edward.       '25         Blount, Wilfred Garrison.       '23         Blum, Charles James.       '23         Bock, Isadore.       '25         Bodine, Newton Barnart.       '24         Boger, Allen Dickson.       '24         Bone, Harry de Ponta.       '25         Boney, Joseph Warren.       Sp	Ag. EngLubbock         EESkidmore         EESkidmore         EESan Antonio         MEDallas         CESan Angelo         MEVernon         CEDallas        Vernon         CEBallas
Blann, Richard Adell.       '25         Blann, Richard Adell.       '25         Blaschke, Raymond George.       C         Blevins, Edward.       '25         Blount, Wilfred Garrison.       '23         Blum, Charles James.       '23         Bock, Isadore.       '25         Bodine, Newton Barnart.       '24         Boger, Allen Dickson.       '24         Bone, Harry de Ponta.       '25         Boney, Joseph Warren.       Sp	Ag. EngLubbock         EESkidmore         EESkidmore         EESan Antonio         MEDallas         CESan Angelo         MEVernon         CEDallas        Vernon         CEBallas
Blann, Richard Adell.       '25         Blann, Richard Adell.       '25         Blaschke, Raymond George.       C         Blevins, Edward.       '25         Blount, Wilfred Garrison.       '23         Blum, Charles James.       '23         Bock, Isadore.       '25         Bodine, Newton Barnart.       '24         Boger, Allen Dickson.       '24         Bone, Harry de Ponta.       '25         Boney, Joseph Warren.       Sp	Ag. EngLubbock         EESkidmore         EESkidmore         EESan Antonio         MEDallas         CESan Angelo         MEVernon         CEDallas        Vernon         CEBallas
Blann, Richard Adell.       '25         Blann, Richard Adell.       '25         Blaschke, Raymond George.       C         Blevins, Edward.       '25         Blount, Wilfred Garrison.       '23         Blum, Charles James.       '23         Bock, Isadore.       '25         Bodine, Newton Barnart.       '24         Boger, Allen Dickson.       '24         Bone, Harry de Ponta.       '25         Boney, Joseph Warren.       Sp	Ag. EngLubbock         EESkidmore         EESkidmore         EESan Antonio         MEDallas         CESan Angelo         MEVernon         CEDallas        Vernon         CEBallas
Blann, Richard Adell.       '25         Blann, Richard Adell.       '25         Blaschke, Raymond George.       C         Blevins, Edward.       '25         Blount, Wilfred Garrison.       '23         Blum, Charles James.       '23         Bock, Isadore.       '25         Bodine, Newton Barnart.       '24         Boger, Allen Dickson.       '24         Bone, Harry de Ponta.       '25         Boney, Joseph Warren.       Sp	Ag. EngLubbock         EESkidmore         EESkidmore         EESan Antonio         MEDallas         CESan Angelo         MEVernon         CEDallas        Vernon         CEBallas
Blann, Richard Adell.       '25         Blann, Richard Adell.       '25         Blaschke, Raymond George.       C         Blevins, Edward.       '25         Blount, Wilfred Garrison.       '23         Blum, Charles James.       '23         Bock, Isadore.       '25         Bodine, Newton Barnart.       '24         Boger, Allen Dickson.       '24         Bone, Harry de Ponta.       '25         Boney, Joseph Warren.       Sp	Ag. Eng Lubbock         EE Marlin         2 Skidmore         EE DeQueen, Arkansas         Ag Nacogdoches         EE San Antonio         ME Dallas         CE San Angelo         ME Vernon         CE Dallas         Ag Richardson         Ag Bedias
Blann, Richard Adell.       '25         Blann, Richard Adell.       '25         Blaschke, Raymond George.       C         Blevins, Edward.       '25         Blount, Wilfred Garrison.       '23         Blum, Charles James.       '23         Bock, Isadore.       '25         Bodine, Newton Barnart.       '24         Boger, Allen Dickson.       '24         Bone, Harry de Ponta.       '25         Boney, Joseph Warren.       Sp	Ag. Eng Lubbock         EE Marlin         2 Skidmore         EE DeQueen, Arkansas         Ag Nacogdoches         EE San Antonio         ME Dallas         CE San Angelo         ME Vernon         CE Dallas         Ag Richardson         Ag Bedias
Blann, Richard Adell.       '25         Blann, Richard Adell.       '25         Blaschke, Raymond George.       C         Blevins, Edward.       '25         Blount, Wilfred Garrison.       '23         Blum, Charles James.       '23         Bock, Isadore.       '25         Bodine, Newton Barnart.       '24         Boger, Allen Dickson.       '24         Bone, Harry de Ponta.       '25         Boney, Joseph Warren.       Sp	Ag. Eng Lubbock         EE Marlin         2 Skidmore         EE DeQueen, Arkansas         Ag Nacogdoches         EE San Antonio         ME Dallas         CE San Angelo         ME Vernon         CE Dallas         Ag Richardson         Ag Bedias
Blann, Richard Adell.       '25         Blann, Richard Adell.       '25         Blaschke, Raymond George.       C         Blevins, Edward.       '25         Blount, Wilfred Garrison.       '23         Blum, Charles James.       '23         Bock, Isadore.       '25         Bodine, Newton Barnart.       '24         Boger, Allen Dickson.       '24         Bone, Harry de Ponta.       '25         Boney, Joseph Warren.       Sp	Ag. Eng Lubbock         EE Marlin         2 Skidmore         EE DeQueen, Arkansas         Ag Nacogdoches         EE San Antonio         ME Dallas         CE San Angelo         ME Vernon         CE Dallas         Ag Richardson         Ag Bedias
Blann, Richard Adell.       '25         Blann, Richard Adell.       '25         Blaschke, Raymond George.       C         Blevins, Edward.       '25         Blount, Wilfred Garrison.       '23         Blum, Charles James.       '23         Bock, Isadore.       '25         Bodine, Newton Barnart.       '24         Boger, Allen Dickson.       '24         Bone, Harry de Ponta.       '25         Boney, Joseph Warren.       Sp	Ag. Eng Lubbock         EE Marlin         2 Skidmore         EE DeQueen, Arkansas         Ag Nacogdoches         EE San Antonio         ME Dallas         CE San Angelo         ME Vernon         CE Dallas         Ag Richardson         Ag Bedias
Blann, Richard Adell.       '25         Blann, Richard Adell.       '25         Blaschke, Raymond George.       C         Blevins, Edward.       '25         Blount, Wilfred Garrison.       '23         Blum, Charles James.       '23         Bok, Isadore.       '25         Bodine, Newton Barnart.       '24         Boger, Allen Dickson.       '24         Bone, Harry de Ponta.       '25         Boney, Joseph Warren.       Sp         Bonnet, Ralph Gazelle.       '24         Boone, Foster James.       Sp         Bonet, Lloyd Bates.       '24         Booth, Herbert Gordan, Jr.       '25         Boriskie, Frank William       '22         Bose, John Carlos.       '23         Bothe, Roland Charles.       '25         Bouriskie, Frank William       '22         Bowden, Edward Lane.       '24         Boyett, Charles Comer.       '25         Bouvek, Lionel Joseph.       '22         Boyett, Charles Comer.       '25         Boyett, Charles Comer.       '25         Boyett, Charles Comer.       '25	Ag. EngLubbock         EESkidmore         EESkidmore         EESan Antonio         MEDallas         CESan Angelo         MEVernon         CEDallas         CESan Angelo         MEVernon         CEDallas         AgRichardson         AgSan Antonio         AgSan Antonio         CESan Antonio         CESeguin         EEYoakum         AgLockhart         AgHope, Arkansas         Ag         Polytechnic
Blann, Richard Adell.       '25         Blann, Richard Adell.       '25         Blaschke, Raymond George.       C         Blevins, Edward.       '25         Blount, Wilfred Garrison.       '23         Blum, Charles James.       '23         Bok, Isadore.       '25         Bodine, Newton Barnart.       '24         Boger, Allen Dickson.       '24         Bone, Harry de Ponta.       '25         Boney, Joseph Warren.       Sp         Bonnet, Ralph Gazelle.       '24         Boone, Foster James.       Sp         Bonet, Lloyd Bates.       '24         Booth, Herbert Gordan, Jr.       '25         Boriskie, Frank William       '22         Bose, John Carlos.       '23         Bothe, Roland Charles.       '25         Bouriskie, Frank William       '22         Bowden, Edward Lane.       '24         Boyett, Charles Comer.       '25         Bouvek, Lionel Joseph.       '22         Boyett, Charles Comer.       '25         Boyett, Charles Comer.       '25         Boyett, Charles Comer.       '25	Ag. EngLubbock         EESkidmore         EESkidmore         EESan Antonio         MEDallas         CESan Angelo         MEVernon         CEDallas         CESan Angelo         MEVernon         CEDallas         AgRichardson         AgSan Antonio         AgSan Antonio         CESan Antonio         CESeguin         EEYoakum         AgLockhart         AgHope, Arkansas         Ag         Polytechnic
Blann, Richard Adell.       '25         Blann, Richard Adell.       '25         Blaschke, Raymond George.       C         Blevins, Edward.       '25         Blount, Wilfred Garrison.       '23         Blum, Charles James.       '23         Bock, Isadore.       '25         Bodine, Newton Barnart.       '24         Boger, Allen Dickson.       '24         Bone, Harry de Ponta.       '25         Boney, Joseph Warren.       Sp	Ag. EngLubbock         EESkidmore         EESkidmore         EESan Antonio         MEDallas         CESan Angelo         MEVernon         CEDallas         CESan Angelo         MEVernon         CEDallas         AgRichardson         AgSan Antonio         AgSan Antonio         CESan Antonio         CESeguin         EEYoakum         AgLockhart         AgHope, Arkansas         Ag         Polytechnic

Bragg J. Edward	'25 CE	Liberty Hill
Bragg, J. Edward. Brandt, Edward Dupree. Brauner, Victor James. Brazelton, Andrew Jackson. Bridges, Robert Earle. Bridges, William Walter. Brient, Albert Sidney. Brison, Ross Harrison. Broach, Douglas. Broad, John Franklin. Brooks, George Winston. Brooks, James Robert.	'23 CE	Temple
Drahut, Edward Dupree	200 VM	San Antonio
Brauner, victor James		
Brazelton, Andrew Jackson	. 25 ChE	. Palestine
Bridges, Robert Earle	.'22 CE	. Texarkana
Bridges, William Walter	.'23 Ag	. Glen Rose
Brient Albert Sidney	'25 A Å	San Antonio
Brigon Boss Harrison	'23 Ar	Pittshurg
Drison, Ross Harrison	20 Mg	Darron
Broach, Douglas.	. 20 MLL	. Dryan
Broad, John Franklin	. 25 Ag	Austin
Brooks, George Winston	.'25 EE	. Navasota
Brooks, James Robert.	. Sp. Ag. Ed	.Pilot Point
Brouer Orville Ariel	'25 ChE	Fort Worth
Brooks, James Robert Brouer, Orville Ariel Brown, Ben Franklin.	'23 Å a	Bockwall
Drown, Den Flanklin	. 20 Ag	Alada
Brown, Dewey Clark	. Sp. M.E	Aleao
Brown, Edgar Allen	. 24 CE	.Fort Worth
Brown, Francis Elmo	.'25 EE	. Mineola
Brown. Gilbert Humphrev	.'23 ME	.Berwick, La.
Brown, Joe Carraway	'22 Ag	Waco
Brown Jamos Sylvestor	'95 FF	Biging Stor
Drown, James Sylvester	20 EE	This West
Brown, Melville Campbell	$20 \text{ Ag} \dots$	.Fort worth
Brownlee, Alfred Perian	.'24 TE	. Dallas
Broxton, Malcolm Irwin	.'23 Ag	. Rockdale
Broyles, James E.	N 1.	Riverside
Brown, Ben Franklin. Brown, Dewey Clark. Brown, Edgar Allen. Brown, Francis Elmo. Brown, Gilbert Humphrey. Brown, Joe Carraway. Brown, James Sylvester. Brown, Melville Campbell. Brownlee, Alfred Perian. Broxton, Malcolm Irwin. Broyles, James E. Brummett, Burette Bassett. Bryan, Arthur Hampton.	'24 Ag Eng	Scranton
Privan Arthur Hampton	C 9	Bishmond
Dryan, Althur Hampton		N/actherford
Bryan, Chinord Larayette	. 20 ME	. weatheriord
Bryan, James Robert	Sp. Ag. Eng.	Plano
Buchan, Fritz Emil	.'22 ChE	. Galveston
Buchanan, John Franklin	.'25 Ag	. Plainview
Buchanan, Spencer Jennings	'25 CE	.Yoakum
Buck Erwin Oscar	'25 EE	Beaumont
Bucklow Charles Clark		·Douginono
Duckiev. Unalles Ulark		Tourdanton
Ducklass Issaph Claude	. 25 CE	.Jourdanton
Buckley, Joseph Claude	Sp. AA	. Jourdanton . Grafton, Australia
Buckley, Joseph Claude Buckner, Floyd King	. 25 CE Sp. AA . 23 CE	. Jourdanton . Grafton, Australia. . Weatherford
Buckley, Joseph Claude Buckner, Floyd King Buehrer, Walter Conrad	. 25 CE Sp. AA . 23 CE . 25 TE	. Jourdanton . Grafton, Australia. . Weatherford . Brenham
Buckley, Joseph Claude Buckner, Floyd King Buehrer, Walter Conrad Buescher, LeRoy August	25 CE Sp. AA 23 CE 25 TE 23 CE	. Jourdanton . Grafton, Australia. . Weatherford . Brenham . Smithville
Buckley, Joseph Claude Buckner, Floyd King. Buehrer, Walter Conrad Buescher, LeRoy August Buescher, Norman Emil	25 CE Sp. AA 23 CE 25 TE 23 CE 22 CE	. Jourdanton . Grafton, Australia. . Weatherford . Brenham . Smithville . Smithville
Buckley, Joseph Claude Buckner, Floyd King Buehrer, Walter Conrad Buescher, LeRoy August Buescher, Norman Emil Buford Hal Hickman	<sup>225</sup> CE Sp. AA <sup>223</sup> CE <sup>225</sup> TE <sup>223</sup> CE <sup>222</sup> Ag <sup>225</sup> Pre-Med	. Jourdanton . Grafton, Australia. . Weatherford . Brenham . Smithville . Smithville Minter
Buckley, Joseph Claude Buckner, Floyd King Buehrer, Walter Conrad Buescher, LeRoy August Buescher, Norman Emil. Buford, Hal Hickman Bullock Wondell Borner	23 CE. 23 CE. 25 TE. 23 CE. 22 Ag. 22 Ag. 25 Pre-Med.	. Jourdanton . Grafton, Australia. . Weatherford . Brenham . Smithville . Smithville . Minter Wonthorford
Buckley, Joseph Claude Buckner, Floyd King. Buehrer, Walter Conrad. Buescher, LeRoy August. Buescher, Norman Emil Buford, Hal Hickman. Bullock, Wendell Barnes.	23 CE 23 CE 23 CE 22 CE 22 CE 22 Ag 25 Pre-Med 23 EE	. Jourdanton Grafton, Australia. . Weatherford . Brenham . Smithville . Smithville . Minter . Weatherford Dest Archar
Buckley, Joseph Claude Buckner, Floyd King Buehrer, Walter Conrad Buescher, LeRoy August Buescher, Norman Emil Buford, Hal Hickman Bullock, Wendell Barnes Bunker, Sterling Chester	23 CE. 223 CE. 225 TE. 223 CE. 223 CE. 222 Ag. 225 Pre-Med. 223 EE. 225 Ar.	. Jourdanton Grafton, Australia. Weatherford Brenham Smithville Smithville Minter Weatherford Port Arthur
Buckley, Joseph Claude. Buckner, Floyd King. Buehrer, Walter Conrad. Buescher, LeRoy August. Buescher, Norman Emil Buford, Hal Hickman. Bullock, Wendell Barnes. Bunker, Sterling Chester. Burden, John Paul.	23 CE. 223 CE. 225 TE. 223 CE. 223 CE. 224 Ag. 225 Pre-Med. 223 EE. 225 CE. 225 CE.	. Jourdanton Grafton, Australia. Weatherford Brenham Smithville Smithville Minter Weatherford Port Arthur Gordonville
Buckley, Joseph Claude Buckner, Floyd King. Buehrer, Walter Conrad. Buescher, LeRoy August. Buescher, Norman Emil. Buford, Hal Hickman. Bullock, Wendell Barnes. Bunker, Sterling Chester. Burker, John Paul. Burkhart, Fred Charles.	23 CE. 23 CE. 23 CE. 23 CE. 23 CE. 22 Ag. 25 Pre-Med. 25 Ar. 25 Ar. 25 CE. 25 CHE.	. Jourdanton Grafton, Australia. . Weatherford . Brenham . Smithville . Smithville . Minter . Weatherford . Port Arthur . Gordonville . Houston
Buckley, Joseph Claude Buckner, Floyd King. Buehrer, Walter Conrad Buescher, LeRoy August. Buescher, Norman Emil Buford, Hal Hickman. Bullock, Wendell Barnes. Bunker, Sterling Chester. Burden, John Paul. Burkhart, Fred Charles. Burleson, Richard Adair	23 CE. 223 CE. 225 TE. 225 TE. 225 Ar. 225 Ar. 225 Ar. 225 CE. 225 CE. 225 CE.	. Jourdanton Grafton, Australia. Weatherford Brenham Smithville Minter Weatherford Port Arthur Gordonville Houston Waco
Buckley, Joseph Claude. Buckner, Floyd King. Buehrer, Walter Conrad. Buescher, LeRoy August. Buescher, Norman Emil Buford, Hal Hickman. Bullock, Wendell Barnes. Bunker, Sterling Chester. Burden, John Paul Burkhart, Fred Charles. Burleson, Richard Adair. Burleson, Richard Adair	25 CE 223 CE 225 TE 225 TE 225 Pre-Med 225 Pre-Med 225 Ar 225 CE 225 CE 225 CE 225 CE 225 CE 225 Ag	. Jourdanton Grafton, Australia. Weatherford Brenham Smithville Minter Weatherford Port Arthur Gordonville Houston Waco Christine
Buckley, Joseph Claude Buckner, Floyd King. Buehrer, Walter Conrad. Buescher, LeRoy August. Buescher, Norman Emil. Buford, Hal Hickman. Bullock, Wendell Barnes. Bunker, Sterling Chester. Burker, John Paul. Burkhart, Fred Charles. Burleson, Richard Adair. Burneister, Gustave. Burneister, Gustave.	25 CE.         Sp. AA.         '23 CE.         '25 TE.         '23 CE.         '25 Pre-Med.         '25 Pre-Med.         '25 Ar.         '25 CE.         '25 CE.         '25 CE.         '25 CE.         '25 CE.         '25 Ag.         '25 Ag.         '25 Ag.	. Jourdanton Grafton, Australia. Weatherford Brenham Smithville Minter Weatherford Port Arthur Gordonville Houston Waco Christine Marble Falls
Buckley, Joseph Claude Buckner, Floyd King. Buehrer, Walter Conrad. Buescher, LeRoy August. Buescher, Norman Emil. Buford, Hal Hickman. Bullock, Wendell Barnes. Bunker, Sterling Chester. Burden, John Paul. Burkhart, Fred Charles. Burleson, Richard Adair. Burmeister, Gustave. Burnam, Robert Maurice.	23 CE. 223 CE. 225 TE. 225 TE. 225 Ar. 225 Ar. 225 Ar. 225 CE. 225 CE. 225 CE. 225 CE. 225 Ag. 225	. Jourdanton Grafton, Australia. Weatherford Brenham Smithville Minter Weatherford Port Arthur Gordonville Houston Waco Christine Marble Falls
Buckley, Joseph Claude. Buckner, Floyd King. Buehrer, Walter Conrad. Buescher, LeRoy August. Buescher, Norman Emil. Buford, Hal Hickman. Bullock, Wendell Barnes. Bunker, Sterling Chester. Burden, John Paul. Burkhart, Fred Charles. Burleson, Richard Adair. Burmeister, Gustave. Burnam, Robert Maurice. Burns, Leslie Lewis.	23 CE.         '23 CE.         '25 TE.         '25 CE.         '25 Pre-Med.         '25 CE.         '25 Q2.         '25 Q2.         '25 Q2.         '25 CE.         '25 Q2.	. Jourdanton Grafton, Australia. Weatherford Brenham Smithville Minter Weatherford Port Arthur Gordonville Houston Waco Christine Marble Falls
Buckley, Joseph Claude Buckner, Floyd King. Buehrer, Walter Conrad. Buescher, LeRoy August. Buescher, Norman Emil. Buford, Hal Hickman. Bullock, Wendell Barnes. Bunker, Sterling Chester. Burker, Sterling Chester. Burkart, Fred Charles. Burkhart, Fred Charles. Burleson, Richard Adair Burmeister, Gustave. Burnam, Robert Maurice. Burns, Leslie Lewis. Burns, Patton Wright.	23 CE. 223 CE. 225 TE 223 CE. 225 TE 223 CE. 225 Ar. 225 Ar. 225 CE. 225 CE. 225 CE. 225 CE. 225 CE. 225 CE. 225 CE. 225 Ag. Eng. 225 Ag. Eng. 225 Ag. Sch. 225 Ag. Sch. 226 Ag. Sch. 226 Ag. Sch. 227 Ag. Sc	. Jourdanton Grafton, Australia. Weatherford Brenham Smithville Minter Weatherford Port Arthur Gordonville Houston Waco Christine Marble Falls Yoakum Cuero
Buckley, Joseph Claude Buckner, Floyd King. Buehrer, Walter Conrad. Buescher, LeRoy August. Buescher, Norman Emil Buford, Hal Hickman. Bullock, Wendell Barnes. Bunker, Sterling Chester. Burden, John Paul. Burkhart, Fred Charles. Burleson, Richard Adair. Burmeister, Gustave. Burnam, Robert Maurice. Burns, Leslie Lewis. Burns, Patton Wright. Burns, Ross Calvin.	23 CE. 223 CE. 225 TE. 225 TE. 225 ZE. 225 Ar. 225 Ar. 225 CE. 225 CE. 225 CE. 225 Ag. 225 Ag. 226 Ag. 227 Ag. 228	. Jourdanton Grafton, Australia. Weatherford Brenham Smithville Minter Weatherford Port Arthur Gordonville Houston Waco Christine Marble Falls Yoakum Cuero Sycamore
Broyles, James E. Brummett, Burette Bassett. Bryan, Arthur Hampton Bryan, Clifford LaFayette. Bryan, James Robert. Buchan, Fritz Emil. Buchanan, John Franklin. Buchanan, Spencer Jennings Buck, Erwin Oscar. Buckley, Charles Clark. Buckley, Joseph Claude. Buckner, Floyd King. Buehrer, Walter Conrad. Buescher, LeRoy August. Buescher, LeRoy August. Buescher, LeRoy August. Buescher, Norman Emil. Buford, Hal Hickman. Bullock, Wendell Barnes. Bunker, Sterling Chester. Burkhart, Fred Charles. Burkhart, Fred Charles. Burkhart, Fred Charles. Burnes, Richard Adair Burmeister, Gustave. Burnam, Robert Maurice. Burns, Leslie Lewis. Burns, Patton Wright. Burns, William Wright.	25 CE. 223 CE. 225 TE. 225 TE. 225 TE. 225 Pre-Med. 225 Pre-Med. 225 CE. 225 CE. 225 CHE. 225 CE. 225 CE. 225 CE. 225 Ag. Eng. 225 Ag. Sp. Ag. N 2. N 2.	. Jourdanton Grafton, Australia. Weatherford Brenham Smithville Minter Weatherford Port Arthur Gordonville Houston Waco Christine Marble Falls Yoakum Cuero Sycamore Lamesa
Buckley, Joseph Claude Buckner, Floyd King. Buehrer, Walter Conrad. Buescher, LeRoy August. Buescher, Norman Emil. Buford, Hal Hickman. Bullock, Wendell Barnes. Bunker, Sterling Chester. Burden, John Paul. Burkhart, Fred Charles. Burleson, Richard Adair Burneister, Gustave. Burnam, Robert Maurice. Burna, Robert Maurice. Burns, Leslie Lewis. Burns, Patton Wright. Burns, William Wright. Burns, William Wright. Burns, William Wright.	23 CE. 223 CE. 225 TE. 225 TE. 225 ZE. 225 Ar. 225 Ar. 225 CE. 225 CE. 225 CE. 225 CE. 225 CE. 225 CE. 225 Ag. Eng. 225 Ag. 225 Ag. 225 Ag. 225 CE. 223 Ag. 225 CE. 223 Ag. 225 EE. 223 EE. 225 EE. 226 EE. 226 EE. 227 EE.	. Jourdanton Grafton, Australia. Weatherford Brenham Smithville Minter Weatherford Port Arthur Gordonville Houston Waco Christine Marble Falls Yoakum Cuero Sycamore Lamesa Dallas
Buckley, Joseph Claude Buckner, Floyd King. Buehrer, Walter Conrad. Buescher, LeRoy August. Buescher, Norman Emil. Buford, Hal Hickman. Bullock, Wendell Barnes. Bunker, Sterling Chester. Burden, John Paul. Burkhart, Fred Charles. Burleson, Richard Adair. Burneister, Gustave. Burnam, Robert Maurice. Burns, Leslie Lewis. Burns, Patton Wright. Burns, William Wright. Burns, William Wright.	23 CE. 23 CE. 23 CE. 23 CE. 25 TE. 22 Ag. 22 Ag. 25 Pre-Med. 23 EE. 25 Ar. 25 CE. 25 ChE. 25 CE. 23 Ag. 25 Ag. Eng. 25 Ag. Eng. 22 Ag. 22 Ag. 22 Ag. 22 CE. 23 Ag. 22 Ag. 22 CE. 23 Ag. 22 Ag. 22 CE. 23 Ag. 23 Ag. 23 CE. 23 Ag. 23 Ag. 23 Ag. 22 CE. 23 Ag. 23 Ag. 23 Ag. 23 CE. 23 Ag. 23 Ag. 23 Ag. 23 CE. 23 Ag. 23 Ag. 23 Ag. 23 CE. 23 Ag. 23 Ag. 24 Ag. 25 Ag. 25 Ag. 26 Ag. 27 Ag.	. Jourdanton Grafton, Australia. Weatherford Brenham Smithville Minter Weatherford Port Arthur Gordonville Houston Waco Christine Marble Falls Yoakum Cuero Sycamore Lamesa Dallas Nordheim
Buckley, Joseph Claude. Buckner, Floyd King. Buehrer, Walter Conrad. Buescher, LeRoy August. Buescher, Norman Emil. Buford, Hal Hickman. Bullock, Wendell Barnes. Bunker, Sterling Chester. Burker, Sterling Chester. Burkhart, Fred Charles. Burkhart, Fred Charles. Burleson, Richard Adair. Burmeister, Gustave. Burnam, Robert Maurice. Burns, Leslie Lewis. Burns, Patton Wright. Burns, Ross Calvin. Burns, William Wright. Burnow, Herbert A. Burrow, Herbert A.	23 CE.         '23 CE.         '25 TE.         '25 Pre-Med.         '25 Pre-Med.         '25 CE.         '25 CE.         '25 CE.         '25 CE.         '25 CE.         '25 Ar.         '25 CE.         '25 Ag. Eng.         '25 CE.         '23 Ag.         '25 Ag. Eng.         '25 EE.         '26 EE.	. Jourdanton Grafton, Australia. Weatherford Brenham Smithville Minter Weatherford Port Arthur Gordonville Houston Waco Christine Marble Falls Yoakum Cuero Sycamore Lamesa Dallas Nordheim Corn car
Buckley, Joseph Claude Buckner, Floyd King. Buehrer, Walter Conrad. Buescher, LeRoy August. Buescher, Norman Emil. Buford, Hal Hickman. Bullock, Wendell Barnes. Bunker, Sterling Chester. Burden, John Paul. Burkhart, Fred Charles. Burleson, Richard Adair Burneister, Gustave. Burnam, Robert Maurice. Burns, Leslie Lewis. Burns, Patton Wright. Burns, Ross Calvin. Burns, William Wright. Burns, James Ballantyne. Burrow, Herbert A. Burrows, Preston Scott.	23 CE. 223 CE. 225 TE. 225 TE. 225 ZE. 225 Ar. 225 Ar. 225 CE. 225 CE. 225 CE. 225 CE. 225 CE. 225 CE. 225 Ag. Eng. 225 ZE. 223 Ag. Sp. Ag. N 2. 22 EE. H 2. 225 EE. 23 Ag. 22 Ag. 22 Ag. 22 Ag. 23 Ag. 25 Ag. 25 Ag. 25 CE. 22 Ag. 22 CE. 22 Ag. 22 Ag. 22 CE. 22 Ag. 22 CE. 22 Ag. 22 CE. 22 Ag. 22 CE. 22 Ag. 22 CE. 22 Ag. 22 CE. 22 C	. Jourdanton Grafton, Australia. Weatherford Brenham Smithville Minter Weatherford Port Arthur Gordonville Houston Waco Christine Marble Falls Yoakum Cuero Sycamore Lamesa Dallas Nordheim Granger
Buckley, Joseph Claude Buckner, Floyd King. Buehrer, Walter Conrad. Buescher, LeRoy August. Buescher, Norman Emil. Buford, Hal Hickman. Bullock, Wendell Barnes. Bunker, Sterling Chester. Burden, John Paul. Burkhart, Fred Charles. Burleson, Richard Adair. Burmeister, Gustave. Burnam, Robert Maurice. Burns, Leslie Lewis. Burns, Patton Wright. Burns, William Wright. Burns, William Wright. Burrow, Herbert A. Burrows, Preston Scott. Burt, Jesse Franklin.	23 CE. 23 CE. 23 CE. 23 CE. 25 TE. 23 CE. 25 Pre-Med. 23 EE. 25 Ar. 25 CE. 25 ChE. 25 CE. 25 Ag. Eng. 25 Ag. Eng. 25 Ag. Sp. Ag. N 2. 22 EE. H 2. 25 CE. 23 Ag. 23 Ag. 25 Ag. 25 Ag. 25 CE. 25	. Jourdanton Grafton, Australia. Weatherford Brenham Smithville Minter Weatherford Port Arthur Gordonville Houston Waco Christine Marble Falls Yoakum Cuero Sycamore Lamesa Dallas Nordheim Granger San Antonio
Buckley, Joseph Claude. Buckner, Floyd King. Buehrer, Walter Conrad. Buescher, LeRoy August. Buescher, Norman Emil. Buford, Hal Hickman. Bullock, Wendell Barnes. Bunker, Sterling Chester. Burkhart, Fred Charles. Burkhart, Fred Charles. Burleson, Richard Adair. Burmeister, Gustave. Burnam, Robert Maurice. Burns, Leslie Lewis. Burns, Patton Wright. Burns, Patton Wright. Burns, William Wright. Burrow, Herbert A. Burrow, Herbert A. Burrow, Preston Scott. Burt, Jesse Franklin. Burton, Miles Kirk.	23 CE. 23 CE. 23 CE. 23 CE. 23 CE. 22 Ag. 22 Ag. 22 Ag. 22 Ag. 22 Ag. 22 Ag. 22 CE. 23 Ag. 25 CE. 23 Ag. 22 EE. 23 Ag. 23 Ag. 22 EE. 23 Ag. N 2. 22 EE. H 2. 25 EE. 25 ChE. 25 AA. 25 AA.	. Jourdanton Grafton, Australia. Weatherford Brenham Smithville Minter Weatherford Port Arthur Gordonville Houston Waco Christine Marble Falls Yoakum Cuero Sycamore Lamesa Dallas Nordheim Granger San Antonio Galveston
Buckley, Joseph Claude Buckner, Floyd King. Buehrer, Walter Conrad. Buescher, LeRoy August. Buescher, Norman Emil. Buford, Hal Hickman. Bullock, Wendell Barnes. Bunker, Sterling Chester. Burden, John Paul. Burkhart, Fred Charles. Burleson, Richard Adair Burneister, Gustave. Burnam, Robert Maurice. Burns, Leslie Lewis. Burns, Patton Wright. Burns, William Wright. Burns, William Wright. Burns, William Wright. Burrow, Herbert A. Burrows, Preston Scott. Burt, Jasse Franklin. Burton, Miles Kirk. Bussey, Emmett D.	25 CE. 223 CE. 225 TE. 225 TE. 225 TE. 225 TE. 225 Ar. 225 EE. 225 CE. 225 CE. 225 CE. 225 CE. 225 CE. 225 CE. 223 Ag. 225 CE. 223 Ag. 225 CE. 223 Ag. 225 CE. 225	. Jourdanton Grafton, Australia. Weatherford Brenham Smithville Minter Weatherford Port Arthur Gordonville Houston Waco Christine Marble Falls Yoakum Cuero Sycamore Lamesa Dallas Nordheim Granger San Antonio Galveston Ennis
Buckley, Joseph Claude Buckner, Floyd King. Buehrer, Walter Conrad. Buescher, LeRoy August. Buescher, Norman Emil. Buford, Hal Hickman. Bullock, Wendell Barnes. Bunker, Sterling Chester. Burkart, Fred Charles. Burkart, Fred Charles. Burleson, Richard Adair Burmeister, Gustave. Burnam, Robert Maurice Burns, Leslie Lewis. Burns, Patton Wright. Burns, William Wright. Burns, William Wright. Burrow, Herbert A. Burrow, Preston Scott. Burton, Miles Kirk. Bussey, Emmett D. Byler. Weldon Bailev	23 CE. 23 CE. 23 CE. 23 CE. 25 TE. 23 CE. 22 Ag. 25 Pre-Med. 23 EE. 25 Ar. 25 CE. 25 CE. 25 CE. 25 Ag. Eng. 25 Ag. Eng. 22 EE. 23 Ag. N 2. 22 EE. H 2. 25 CE. 25 CE. 23 Ag. Sp. Ag. N 2. 25 CE. 23 Ag. Sp. Ag. N 2. 25 CE. 25 AA. Sp. Ag. Ed. 25 CE. 25 CE. 25 CE. 25 Ag. Sp. Ag. Sp. Ag. Ed. 25 CE. 25	. Jourdanton Grafton, Australia. Weatherford Brenham Smithville Minter Weatherford Port Arthur Gordonville Houston Waco Christine Marble Falls Yoakum Cuero Sycamore Lamesa Dallas Nordheim Granger San Antonio Galveston Ennis Blanco
Buckley, Joseph Claude. Buckner, Floyd King. Buehrer, Walter Conrad. Buescher, LeRoy August. Buescher, LeRoy August. Buscher, Norman Emil. Buford, Hal Hickman. Bullock, Wendell Barnes. Bunker, Sterling Chester. Burkhart, Fred Charles. Burkhart, Fred Charles. Burkhart, Fred Charles. Burleson, Richard Adair. Burmeister, Gustave. Burnam, Robert Maurice. Burns, Leslie Lewis. Burns, Patton Wright. Burns, Patton Wright. Burns, William Wright. Burrow, Herbert A. Burrow, Herbert A. Burrow, Preston Scott. Burt, Jasse Franklin. Burton, Miles Kirk. Bussey, Emmett D. Byler, Weldon Bailey. Bynum William Arnice	23 CE. 23 CE. 23 CE. 23 CE. 22 Ag. 22 Ag. 22 Ag. 22 Ag. 22 Ag. 22 Ag. 22 Ag. 22 CE. 23 Ag. 25 CE. 23 Ag. 22 EE. 23 Ag. 22 EE. 23 Ag. N 2. 22 EE. 22 EE. 22 EE. 22 Ag. N 2. 25 EE. 25 ChE. 25 ChE. 25 EE. 25 ChE. 25 ChE. 25 EE. 25 ChE. 25 CH. 26 ChE. 27 CH. 27 CH.	. Jourdanton Grafton, Australia. Weatherford Brenham Smithville Minter Weatherford Port Arthur Gordonville Houston Waco Christine Marble Falls Yoakum Cuero Sycamore Lamesa Dallas Nordheim Granger San Antonio Ennis Blanco Midlothian
Buckley, Joseph Claude Buckner, Floyd King. Buehrer, Walter Conrad. Buescher, LeRoy August. Buescher, Norman Emil. Buford, Hal Hickman. Bullock, Wendell Barnes. Bunker, Sterling Chester. Burden, John Paul. Burkhart, Fred Charles. Burleson, Richard Adair. Burneister, Gustave. Burnam, Robert Maurice. Burnam, Robert Maurice. Burns, Leslie Lewis. Burns, Patton Wright. Burns, William Wright. Burns, William Wright. Burrow, Herbert A. Burrows, Preston Scott. Burt, Jasse Franklin. Burton, Miles Kirk. Bussey, Emmett D. Byler, Weldon Bailey. Byrom, Leonard Attivell	225 CE.         '23 CE.         '25 TE.         '22 Ag.         '22 Fre-Med.         '23 EE.         '25 CE.         '25 CE.         '25 CE.         '25 CE.         '25 CE.         '25 Ag. Eng.         '25 ChE.         '25 CE.         '25 Ag. Eng.         '25 CE.         '25 Ag. Eng.         '25 CE.         '25 CE.         '25 CE.         '25 CE.         '25 CE.         '25 CE.         '25 Ag. Eng.         '25 CE.         '25 Ag. Eng.         '25 Ag. Eng.         '25 Ag.         '25 EE.         '25 ChE.         '25 ChE.         '25 EE.         '25 ChE.         '25 EE.         '25 EE.         '25 EE.         '25 EE.         '25 EE.         '25 EE.         '26 CE.         '27 MF	. Jourdanton Grafton, Australia. Weatherford Brenham Smithville Minter Weatherford Port Arthur Gordonville Houston Waco Christine Marble Falls Yoakum Cuero Sycamore Lamesa Dallas Nordheim Granger San Antonio Galveston Ennis Blanco Midlothian
Buckley, Joseph Claude Buckner, Floyd King. Buehrer, Walter Conrad. Buescher, LeRoy August. Buescher, Norman Emil. Buford, Hal Hickman. Bullock, Wendell Barnes. Bunker, Sterling Chester. Burnker, Sterling Chester. Burkhart, Fred Charles. Burkhart, Fred Charles. Burleson, Richard Adair Burmeister, Gustave. Burns, Leslie Lewis. Burns, Leslie Lewis. Burns, Patton Wright. Burns, William Wright. Burns, William Wright. Burrow, Herbert A. Burrows, Preston Scott. Burt, Jesse Franklin. Burton, Miles Kirk. Bussey, Emmett D. Byler, Weldon Bailey. Byron, Leonard Attwell.	23 CE.         '23 CE.         '25 TE.         '23 CE.         '25 TE.         '25 CE.         '25 ChE.         '25 CE.         '25 Ag. Eng.         '25 EE.         '25 EE.         '25 ChE.         '25 EE.         '25 EE.         '25 ChE.         '25 EE.         '25 EE.         '25 EE.         '25 ChE.         '25 ChE.         '25 EE.         '25 ChE.         '25 QLE.         '24 ChE.         '22 ME.	. Jourdanton Grafton, Australia. Weatherford Brenham Smithville Minter Weatherford Port Arthur Gordonville Houston Waco Christine Marble Falls Yoakum Cuero Sycamore Lamesa Dallas Nordheim Granger San Antonio Galveston Ennis Blanco Midlothian Weatherford
Burr, James Ballantyne. Burrow, Herbert A. Burrows, Preston Scott. Burt, Jesse Franklin Burton, Miles Kirk. Bussey, Emmett D. Byler, Weldon Bailey. Bynum, William Arnice. Byron, Leonard Attwell.	<ul> <li>'22 EE</li></ul>	Dallas . Dallas . Nordheim . Granger . San Antonio . Galveston . Ennis . Blanco . Midlothian . Weatherford
Buckley, Joseph Claude. Buckner, Floyd King. Buehrer, Walter Conrad. Buescher, LeRoy August. Buescher, LeRoy August. Buescher, Norman Emil. Buford, Hal Hickman. Bullock, Wendell Barnes. Bunker, Sterling Chester. Burkart, Fred Charles. Burkhart, Fred Charles. Burkhart, Fred Charles. Burkhart, Fred Charles. Burneister, Gustave. Burnam, Robert Maurice. Burns, Leslie Lewis. Burns, Patton Wright. Burns, Ross Calvin. Burns, William Wright. Burrow, Herbert A. Burrows, Preston Scott. Burt, Jesse Franklin. Burton, Miles Kirk. Bussey, Emmett D. Byler, Weldon Bailey. Byron, Leonard Attwell. Calder, Rhoden.	<ul> <li>'22 EE</li></ul>	Dallas . Dallas . Nordheim . Granger . San Antonio . Galveston . Ennis . Blanco . Midlothian . Weatherford

# STUDENTS.

Caldenall Danaga Laguidan 205 CE Carmony	
Caldwell, Roscoe Leonidas	
Caldwell, Roscoe Leonidas	
Collen Isman In	
Canan, James, Jr.	
Callaway, George Newton	
Callaway, Lester Howard	
Calvin Elmer Ben '24 CE Markley	
Carvin, Elinele Dent	
Camp, Charles Walter	
Campbell, Roy Baker	
Canion, Claude	
Campleman Lester James '24 Ag Honey Grove	
Carptennan, Lester James	
Carleton, Robert Earl	
Carlisle, John Taylor	
Carlton, Duane William '23 Ag Fort Worth	
Carleton, Robert Earl.       24 Ag.       Spur         Carleton, Robert Earl.       Sp. Ag.       Spur         Carlisle, John Taylor.       '22 Ag.       Houston         Carlton, Duane William.       '23 Ag.       Fort Worth         Carlton, Melvin Walter.       '25 Ag.       Pleasanton         Carlton, Robert Ardine.       '24 EE.       Fort Worth         Carnton, Robert Ardine.       Sp. Ag.       Graphury	
Carlton, Mervin Walter	
Carlton, Robert Ardine	
Carmichael, John Fears Sp. Ag Granbury	
Carpenter, Kirby Custer Sp. Ag Sudan	
Carroll Bond Ernest N2 Houston	
Carron, Dond Ernest,	
Carroll, Hugh Anton	
Carroll, Homer Clarence	
Carruth, Otis Hobert '25 EE Pampa	
Carrythers Robert Longy '22 ChE Fort Worth	
Cantumers, Robert Loney	
Carson, Allred Doughton	
Carmichael, John Fears	
B. S., A. and M. College of Texas, 1918.         Carson, Charles Willis.       '22 CE.         Eagle Pass         Caruth, Charles Francis.       M 1Gatesville         Casady, Kenneth Boyce.       H 2La Porte         Caton, Thomas Wayne.       '25 EE.       Clarksville         Causby, J. Allen.       '25 EE.       Crandall         Caitor, Frad. Cocarae       San Act       Sublime	
Caruth, Charles Francis M 1	
Casady, Kenneth Boyce	
Caton, Thomas Wayne '25 EE Clarksville	
Caushy I Allon '25 FF Crandell	
Callsby, J. Allell	
Cejka, Fred George	
Chambers, Chester Hall	
Chambers, John Bennette '23 Ag Harlingen	
Chamlee, Fred Fearnot, '25 EE, Gatesville	
Chamlee, Fred Fearnot	
Chamlee, Fred Fearnot	
Ceika, Fred George.       Sp. Ag.       Sublime         Chambers, Chester Hall.       '22 Ag.       Harlingen         Chambers, John Bennette.       '23 Ag.       Harlingen         Chamlee, Fred Fearnot.       '25 EE.       Gatesville         Chandler, Joe N.       '25 ME.       Weatherford         Chang, Ching Yueh.       Sp. Ag.       Taiping fu, Anhw	rei,
Chang, Ching Tuen Sp. Ag Taiping Tu, Annw	rei,
Chang, Ching Tuen Sp. Ag Taiping Tu, Annw	·ei,
Chang, Ching Tuen Sp. Ag Taiping Tu, Annw	·ei,
Chang, Ching Tuen Sp. Ag Taiping Tu, Annw	rei,
Chang, Ching Tuen Sp. Ag Taiping Tu, Annw	rei,
Chang, Ching Tuen Sp. Ag Taiping Tu, Annw	rei,
Chang, Ching Tuen Sp. Ag Taiping Tu, Annw	'ei,
Chang, Ching Tuen Sp. Ag Taiping Tu, Annw	rei,
Chang, Ching Tuen Sp. Ag Taiping Tu, Annw	rei,
Chang, Ching Tuen Sp. Ag Taiping Tu, Annw	vei,
Chang, Ching Fuen.       Sp. Ag.       China China         Chapa, Emilio.       '24 Ag.       San Antonio         Chapman, Clifford Grady.       N 1.       Forney         Chapman, Dewitt Charles.       '24 Ag.       Waco         Chapman, Howard Eugene.       '25 EE.       Clarksville         Chapman, Joseph Burdette.       '25 EE.       Texas City         Chapman, Marvin D.       C 1       Bastrop         Chapman, Stanley Parks.       '25 EE.       Hutchins         Chappelle, Hugh Lyman.       Sp. ME       College Station	vei,
Chang, Ching Fuen.       Sp. Ag.       China China         Chapa, Emilio.       '24 Ag.       San Antonio         Chapman, Clifford Grady.       N 1.       Forney         Chapman, Dewitt Charles.       '24 Ag.       Waco         Chapman, Howard Eugene.       '25 EE.       Clarksville         Chapman, Joseph Burdette.       '25 EE.       Texas City         Chapman, Marvin D.       C 1       Bastrop         Chapman, Stanley Parks.       '25 EE.       Hutchins         Chappelle, Hugh Lyman.       Sp. ME       College Station	vei,
Chang, Ching Fuen.       Sp. Ag.       China China         Chapa, Emilio.       '24 Ag.       San Antonio         Chapman, Clifford Grady.       N 1.       Forney         Chapman, Dewitt Charles.       '24 Ag.       Waco         Chapman, Howard Eugene.       '25 EE.       Clarksville         Chapman, Joseph Burdette.       '25 EE.       Texas City         Chapman, Marvin D.       C 1       Bastrop         Chapman, Stanley Parks.       '25 EE.       Hutchins         Chappelle, Hugh Lyman.       Sp. ME       College Station         B. S., A. and M. College of Texas, 1920.       '25 ChE.       Galveston	vei,
Chang, Ching Fuen.       Sp. Ag.       China China         Chapa, Emilio.       '24 Ag.       San Antonio         Chapman, Clifford Grady.       N 1.       Forney         Chapman, Dewitt Charles.       '24 Ag.       Waco         Chapman, Howard Eugene.       '25 EE.       Clarksville         Chapman, Joseph Burdette.       '25 EE.       Texas City         Chapman, Marvin D.       C 1       Bastrop         Chapman, Stanley Parks.       '25 EE.       Hutchins         Chappelle, Hugh Lyman.       Sp. ME       College Station         B. S., A. and M. College of Texas, 1920.       '25 ChE.       Galveston	rei,
Chang, Ching Fuen.       Sp. Ag.       China China         Chapa, Emilio.       '24 Ag.       San Antonio         Chapman, Clifford Grady.       N 1.       Forney         Chapman, Dewitt Charles.       '24 Ag.       Waco         Chapman, Howard Eugene.       '25 EE.       Clarksville         Chapman, Joseph Burdette.       '25 EE.       Texas City         Chapman, Marvin D.       C 1       Bastrop         Chapman, Stanley Parks.       '25 EE.       Hutchins         Chappelle, Hugh Lyman.       Sp. ME       College Station         B. S., A. and M. College of Texas, 1920.       '25 ChE.       Galveston	vei,
Chang, Ching Fuen.       Sp. Ag.       China China         Chapa, Emilio.       '24 Ag.       San Antonio         Chapman, Clifford Grady.       N 1.       Forney         Chapman, Dewitt Charles.       '24 Ag.       Waco         Chapman, Dewitt Charles.       '25 EE.       Clarksville         Chapman, Howard Eugene.       '25 EE.       Clarksville         Chapman, Joseph Burdette.       '25 EE.       Texas City         Chapman, Marvin D.       C 1.       Bastrop         Chapman, Stanley Parks.       '25 EE.       Hutchins         Chappelle, Hugh Lyman.       Sp. ME.       College Station         B.S. A. and M. College of Texas, 1920.       Chasten, James Henry       Sp. Ag.       Bryan         Chastun, James Henry       Sp. Ag.       Bryan       Ciddings         Cherry, Robert Leslie       '24 Pre-Med.       Giddings         Chisholm, Cecil Jackson       '24 EE.       Waco	rei,
Chang, Ching Fuen.       Sp. Ag.       China China         Chapa, Emilio.       '24 Ag.       San Antonio         Chapman, Clifford Grady.       N 1.       Forney         Chapman, Dewitt Charles.       '24 Ag.       Waco         Chapman, Dewitt Charles.       '25 EE.       Clarksville         Chapman, Howard Eugene.       '25 EE.       Clarksville         Chapman, Joseph Burdette.       '25 EE.       Texas City         Chapman, Marvin D.       C 1.       Bastrop         Chapman, Stanley Parks.       '25 EE.       Hutchins         Chappelle, Hugh Lyman.       Sp. ME.       College Station         B.S. A. and M. College of Texas, 1920.       Chasten, James Henry       Sp. Ag.       Bryan         Chastun, James Henry       Sp. Ag.       Bryan       Ciddings         Cherry, Robert Leslie       '24 Pre-Med.       Giddings         Chisholm, Cecil Jackson       '24 EE.       Waco	·
Chang, Ching Fuen.       Sp. Ag.       China China         Chapa, Emilio.       '24 Ag.       San Antonio         Chapman, Clifford Grady.       N 1.       Forney         Chapman, Dewitt Charles.       '24 Ag.       Waco         Chapman, Dewitt Charles.       '25 EE.       Clarksville         Chapman, Howard Eugene.       '25 EE.       Clarksville         Chapman, Joseph Burdette.       '25 EE.       Texas City         Chapman, Marvin D.       C 1.       Bastrop         Chapman, Stanley Parks.       '25 EE.       Hutchins         Chappelle, Hugh Lyman.       Sp. ME.       College Station         B.S. A. and M. College of Texas, 1920.       Chasten, James Henry       Sp. Ag.       Bryan         Chastun, James Henry       Sp. Ag.       Bryan       Ciddings         Cherry, Robert Leslie       '24 Pre-Med.       Giddings         Chisholm, Cecil Jackson       '24 EE.       Waco	rei,
Chang, Ching Fuen.       Sp. Ag.       China China         Chapa, Emilio.       '24 Ag.       San Antonio         Chapman, Clifford Grady.       N 1.       Forney         Chapman, Dewitt Charles.       '24 Ag.       Waco         Chapman, Dewitt Charles.       '25 EE.       Clarksville         Chapman, Howard Eugene.       '25 EE.       Clarksville         Chapman, Joseph Burdette.       '25 EE.       Texas City         Chapman, Marvin D.       C 1.       Bastrop         Chapman, Stanley Parks.       '25 EE.       Hutchins         Chappelle, Hugh Lyman.       Sp. ME.       College Station         B.S. A. and M. College of Texas, 1920.       Chasten, James Henry       Sp. Ag.       Bryan         Chastun, James Henry       Sp. Ag.       Bryan       Ciddings         Cherry, Robert Leslie       '24 Pre-Med.       Giddings         Chisholm, Cecil Jackson       '24 EE.       Waco	rei,
Chang, Ching Fuen.       Sp. Ag.       China         Chapa, Emilio.       '24 Ag.       San Antonio         Chapman, Clifford Grady.       N 1.       Forney         Chapman, Dewitt Charles.       '24 Ag.       Waco         Chapman, Dewitt Charles.       '25 EE       Clarksville         Chapman, Joseph Burdette.       '25 EE       Clarksville         Chapman, Marvin D.       C 1.       Bastrop         Chapman, Stanley Parks.       '25 EE       Hutchins         Chappelle, Hugh Lyman.       Sp. ME       College Station         B.S., A. and M. College of Texas, 1920       Chase, Robert Harold.       '25 ChE         Chastun, James Henry.       Sp. Ag.       Bryan         Cherry, Robert Leslie.       '24 Pre-Med.       Giddings         Chistolm, Cecil Jackson       '24 EE       Waco         Choate, Marcos Hays       C 2.       Kenedy         Christopher, Uriel Echols       '22 Ag.       Plano         Cimo.       '24 Ag. Eng.       Waco	vei,
Chang, Ching Fuen.       Sp. Ag.       China         Chapa, Emilio.       '24 Ag.       San Antonio         Chapman, Clifford Grady.       N 1.       Forney         Chapman, Dewitt Charles.       '24 Ag.       Waco         Chapman, Dewitt Charles.       '25 EE       Clarksville         Chapman, Joseph Burdette.       '25 EE       Clarksville         Chapman, Marvin D.       C 1.       Bastrop         Chapman, Stanley Parks.       '25 EE       Hutchins         Chappelle, Hugh Lyman.       Sp. ME       College Station         B.S., A. and M. College of Texas, 1920       Chase, Robert Harold.       '25 ChE         Chastun, James Henry.       Sp. Ag.       Bryan         Cherry, Robert Leslie.       '24 Pre-Med.       Giddings         Chistolm, Cecil Jackson       '24 EE       Waco         Choate, Marcos Hays       C 2.       Kenedy         Christopher, Uriel Echols       '22 Ag.       Plano         Cimo.       '24 Ag. Eng.       Waco	rei,
Chang, Ching Fuen.       Sp. Ag.       China         Chapa, Emilio.       '24 Ag.       San Antonio         Chapman, Clifford Grady.       N 1.       Forney         Chapman, Dewitt Charles.       '24 Ag.       Waco         Chapman, Dewitt Charles.       '25 EE       Clarksville         Chapman, Joseph Burdette.       '25 EE       Clarksville         Chapman, Marvin D.       C 1.       Bastrop         Chapman, Stanley Parks.       '25 EE       Hutchins         Chappelle, Hugh Lyman.       Sp. ME       College Station         B.S., A. and M. College of Texas, 1920       Chase, Robert Harold.       '25 ChE         Chastun, James Henry.       Sp. Ag.       Bryan         Cherry, Robert Leslie.       '24 Pre-Med.       Giddings         Chistolm, Cecil Jackson       '24 EE       Waco         Choate, Marcos Hays       C 2.       Kenedy         Christopher, Uriel Echols       '22 Ag.       Plano         Cimo.       '24 Ag. Eng.       Waco	
Chang, Ching Fuen.       Sp. Ag.       China         Chapman, Clifford Grady.       N 1.       Forney         Chapman, Dewitt Charles.       '24 Ag.       Waco         Chapman, Dewitt Charles.       '25 EE.       Clarksville         Chapman, Dewitt Charles.       '25 EE.       Clarksville         Chapman, Dewitt Charles.       '25 EE.       Clarksville         Chapman, Joseph Burdette.       '25 EE.       Texas City         Chapman, Marvin D.       C 1.       Bastrop         Chapman, Stanley Parks.       '25 EE.       Hutchins         Chappelle, Hugh Lyman.       Sp. ME       College Station         B.S., A. and M. College of Texas, 1920       Chase, Robert Harold.       '25 ChE.       Galveston         Chase, Robert Harold.       '25 ChE.       Galveston       Cherry, Robert Leslie.       '24 Pre-Med.       Giddings         Chastun, James Henry.       Sp. Ag.       Bryan       Ghaddings       Choate, Marcos Hays       C 2.       Kenedy         Chisholm, Cecil Jackson       '24 Ag. Eng.       Waco       Choate, Marcos Hays       C 2.       Kenedy         Christopher, Uriel Echols       '22 Ag.       Plano       Cimpit, Ray Mansker.       Sp. Ag.       Ballinger         Clanton, Raleigh Wells       '22	
Chang, Ching Fuen.       Sp. Ag.       China         Chapman, Clifford Grady.       N 1.       Forney         Chapman, Dewitt Charles.       '24 Ag.       Waco         Chapman, Dewitt Charles.       '25 EE.       Clarksville         Chapman, Dewitt Charles.       '25 EE.       Clarksville         Chapman, Dewitt Charles.       '25 EE.       Clarksville         Chapman, Joseph Burdette.       '25 EE.       Texas City         Chapman, Marvin D.       C 1.       Bastrop         Chapman, Stanley Parks.       '25 EE.       Hutchins         Chappelle, Hugh Lyman.       Sp. ME       College Station         B.S., A. and M. College of Texas, 1920       Chase, Robert Harold.       '25 ChE.       Galveston         Chase, Robert Harold.       '25 ChE.       Galveston       Cherry, Robert Leslie.       '24 Pre-Med.       Giddings         Chastun, James Henry.       Sp. Ag.       Bryan       Ghaddings       Choate, Marcos Hays       C 2.       Kenedy         Chisholm, Cecil Jackson       '24 Ag. Eng.       Waco       Choate, Marcos Hays       C 2.       Kenedy         Christopher, Uriel Echols       '22 Ag.       Plano       Cimpit, Ray Mansker.       Sp. Ag.       Ballinger         Clanton, Raleigh Wells       '22	
Chang, Ching Fuen.       Sp. Ag.       China         Chapman, Clifford Grady.       N 1.       Forney         Chapman, Dewitt Charles.       '24 Ag.       Waco         Chapman, Dewitt Charles.       '25 EE.       Clarksville         Chapman, Dewitt Charles.       '25 EE.       Clarksville         Chapman, Dewitt Charles.       '25 EE.       Clarksville         Chapman, Joseph Burdette.       '25 EE.       Texas City         Chapman, Marvin D.       C 1.       Bastrop         Chapman, Stanley Parks.       '25 EE.       Hutchins         Chappelle, Hugh Lyman.       Sp. ME       College Station         B.S., A. and M. College of Texas, 1920       Chase, Robert Harold.       '25 ChE.       Galveston         Chase, Robert Harold.       '25 ChE.       Galveston       Cherry, Robert Leslie.       '24 Pre-Med.       Giddings         Chastun, James Henry.       Sp. Ag.       Bryan       Ghaddings       Choate, Marcos Hays       C 2.       Kenedy         Chisholm, Cecil Jackson       '24 Ag. Eng.       Waco       Choate, Marcos Hays       C 2.       Kenedy         Christopher, Uriel Echols       '22 Ag.       Plano       Cimpit, Ray Mansker.       Sp. Ag.       Ballinger         Clanton, Raleigh Wells       '22	
Chang, Ching Fuen.       Sp. Ag.       China         Chapman, Clifford Grady.       N 1.       Forney         Chapman, Dewitt Charles.       '24 Ag.       Waco         Chapman, Dewitt Charles.       '25 EE.       Clarksville         Chapman, Dewitt Charles.       '25 EE.       Clarksville         Chapman, Dewitt Charles.       '25 EE.       Clarksville         Chapman, Joseph Burdette.       '25 EE.       Texas City         Chapman, Marvin D.       C 1.       Bastrop         Chapman, Stanley Parks.       '25 EE.       Hutchins         Chappelle, Hugh Lyman.       Sp. ME       College Station         B.S., A. and M. College of Texas, 1920       Chase, Robert Harold.       '25 ChE.       Galveston         Chase, Robert Harold.       '25 ChE.       Galveston       Cherry, Robert Leslie.       '24 Pre-Med.       Giddings         Chastun, James Henry.       Sp. Ag.       Bryan       Ghaddings       Choate, Marcos Hays       C 2.       Kenedy         Chisholm, Cecil Jackson       '24 Ag. Eng.       Waco       Choate, Marcos Hays       C 2.       Kenedy         Christopher, Uriel Echols       '22 Ag.       Plano       Cimpit, Ray Mansker.       Sp. Ag.       Ballinger         Clanton, Raleigh Wells       '22	
Chang, Ching Fuen.       Sp. Ag.       China         Chapman, Clifford Grady.       N 1.       Forney         Chapman, Dewitt Charles.       '24 Ag.       Waco         Chapman, Dewitt Charles.       '25 EE.       Clarksville         Chapman, Dewitt Charles.       '25 EE.       Clarksville         Chapman, Dewitt Charles.       '25 EE.       Clarksville         Chapman, Joseph Burdette.       '25 EE.       Texas City         Chapman, Marvin D.       C 1.       Bastrop         Chapman, Stanley Parks.       '25 EE.       Hutchins         Chappelle, Hugh Lyman.       Sp. ME       College Station         B.S., A. and M. College of Texas, 1920       Chase, Robert Harold.       '25 ChE.       Galveston         Chase, Robert Harold.       '25 ChE.       Galveston       Cherry, Robert Leslie.       '24 Pre-Med.       Giddings         Chastun, James Henry.       Sp. Ag.       Bryan       Ghaddings       Choate, Marcos Hays       C 2.       Kenedy         Chisholm, Cecil Jackson       '24 Ag. Eng.       Waco       Choate, Marcos Hays       C 2.       Kenedy         Christopher, Uriel Echols       '22 Ag.       Plano       Cimpit, Ray Mansker.       Sp. Ag.       Ballinger         Clanton, Raleigh Wells       '22	
Chang, Ching Fuen.       Sp. Ag.       China         Chapman, Clifford Grady.       N 1.       Forney         Chapman, Dewitt Charles.       '24 Ag.       Waco         Chapman, Dewitt Charles.       '25 EE.       Clarksville         Chapman, Dewitt Charles.       '25 EE.       Clarksville         Chapman, Dewitt Charles.       '25 EE.       Clarksville         Chapman, Joseph Burdette.       '25 EE.       Texas City         Chapman, Marvin D.       C 1.       Bastrop         Chapman, Stanley Parks.       '25 EE.       Hutchins         Chappelle, Hugh Lyman.       Sp. ME       College Station         B.S., A. and M. College of Texas, 1920       Chase, Robert Harold.       '25 ChE.       Galveston         Chase, Robert Harold.       '25 ChE.       Galveston       Cherry, Robert Leslie.       '24 Pre-Med.       Giddings         Chastun, James Henry.       Sp. Ag.       Bryan       Ghaddings       Choate, Marcos Hays       C 2.       Kenedy         Chisholm, Cecil Jackson       '24 Ag. Eng.       Waco       Choate, Marcos Hays       C 2.       Kenedy         Christopher, Uriel Echols       '22 Ag.       Plano       Cimpit, Ray Mansker.       Sp. Ag.       Ballinger         Clanton, Raleigh Wells       '22	
Chang, Ching Fuen.       Sp. Ag.       China         Chapman, Clifford Grady.       N 1.       Forney         Chapman, Dewitt Charles.       '24 Ag.       Waco         Chapman, Dewitt Charles.       '25 EE.       Clarksville         Chapman, Dewitt Charles.       '25 EE.       Clarksville         Chapman, Dewitt Charles.       '25 EE.       Clarksville         Chapman, Joseph Burdette.       '25 EE.       Texas City         Chapman, Marvin D.       C 1.       Bastrop         Chapman, Stanley Parks.       '25 EE.       Hutchins         Chappelle, Hugh Lyman.       Sp. ME       College Station         B.S., A. and M. College of Texas, 1920       Chase, Robert Harold.       '25 ChE.       Galveston         Chase, Robert Harold.       '25 ChE.       Galveston       Cherry, Robert Leslie.       '24 Pre-Med.       Giddings         Chastun, James Henry.       Sp. Ag.       Bryan       Ghaddings       Choate, Marcos Hays       C 2.       Kenedy         Chisholm, Cecil Jackson       '24 Ag. Eng.       Waco       Choate, Marcos Hays       C 2.       Kenedy         Christopher, Uriel Echols       '22 Ag.       Plano       Cimpit, Ray Mansker.       Sp. Ag.       Ballinger         Clanton, Raleigh Wells       '22	
Chang, Ching Fuen.       Sp. Ag.       China         Chapman, Clifford Grady.       N 1.       Forney         Chapman, Dewitt Charles.       '24 Ag.       Waco         Chapman, Dewitt Charles.       '25 EE       Clarksville         Chapman, Dewitt Charles.       '25 EE       Clarksville         Chapman, Dewitt Charles.       '25 EE       Clarksville         Chapman, Joseph Burdette.       '25 EE       Texas City         Chapman, Marvin D.       C 1       Bastrop         Chapman, Stanley Parks.       '25 EE       Hutchins         Chappelle, Hugh Lyman.       Sp. ME       College Station         B.S., A. and M. College of Texas, 1920       Chase, Robert Harold.       '25 ChE         Chastun, James Henry       Sp. Ag.       Bryan         Cherry, Robert Leslie.       '24 Pre-Med.       Giddings         Chisholm, Cecil Jackson       '24 EE       Waco         Choate, Marcos Hays       C 2.       Kenedy         Christopher, Uriel Echols       '22 Ag.       Plano         Cimo, Philip       '24 Ag. Eng.       Waco         Clampitt, Ray Mansker.       Sp. Ag.       Ballinger         Clanton, Raleigh Wells       '22 EE       Dallas         Clork Alton Panorick	
Chang, Ching Fuen.       Sp. Ag.       China         Chapa, Emilio.       '24 Ag.       San Antonio         Chapman, Clifford Grady.       N 1.       Forney         Chapman, Dewitt Charles.       '24 Ag.       Waco         Chapman, Dewitt Charles.       '25 EE       Clarksville         Chapman, Joseph Burdette.       '25 EE       Clarksville         Chapman, Marvin D.       C 1.       Bastrop         Chapman, Stanley Parks.       '25 EE       Hutchins         Chappelle, Hugh Lyman.       Sp. ME       College Station         B.S., A. and M. College of Texas, 1920       Chase, Robert Harold.       '25 ChE         Chastun, James Henry.       Sp. Ag.       Bryan         Cherry, Robert Leslie.       '24 Pre-Med.       Giddings         Chistolm, Cecil Jackson       '24 EE       Waco         Choate, Marcos Hays       C 2.       Kenedy         Christopher, Uriel Echols       '22 Ag.       Plano         Cimo.       '24 Ag. Eng.       Waco	

	,
Clarke, James Tidmarsh. Clarke, James Walter. Clay, Louis House. Clayton, Newton Halbert. Cleaver, Thurman Tennyson. Clement, George Kilgore. Cleveland, Noah Alcander. Cleveland, Noah Alcander. Cleveland, Raymond Baker. Clore, Venus Uranus. Close, Cephas Major Close, Cephas Major Cloud, William Griffith. Coale, Cecil Roberts. Cochran, Burrell Banister. Cockrell, Thomas Jefferson. Coimbra, Joas.	'24 ChE San Antonio
Clarke James Walter	H 2 Comanche
Clar Louis House	'24 MF Fort Worth
Clayton Nowton Halbort	24 MILLFOIL WOITH
Clayton, Newton Halbert	20 EE Corsicana
Cleaver, Thurman Tennyson	24 EETroup
Clement, George Kilgore	24 EECameron
Cleveland, Noah Alcander	Sp. Ag. EdBeaumont
Cleveland, Raymond Baker	23 AgOsceola
Cline, William Benjamin, Jr	.'24 Pre-MedBryan
Cloer, Venus Uranus	'22 ChEPilot Point
Close, Cephas Major	'23 Ag Dallas
Cloud, William Griffith	'25 Ag Bryan
Coale Cecil Roberts	'25 EE Orange
Cochran Burrell Banister	'22 ME Houston
Cooke Nelle	25 CF Wass
Cocke, Nane	
Cockrell, Thomas Jenerson	Sp. AADallas
Colmbra, Joas. Coleman, Thompson Crawford Colglazier, Robert Wesley, Jr Colling, Boniamin Fountain	Sp. Ag Pernambuco, Brazil
Coleman, Thompson Crawford	.25 ME Wills Point
Colglazier, Robert Wesley, Jr Collins, Benjamin Fountain. Collins, Edward Schanck. Collins, Leon Liddell. Compton, Charles Reed. Conley, Newton. Connor, John Franklin. Contreras, Herman Howard. Cook, Charlie Cottingham, Jr. Cook, Dugger Elmus. Cooper, Forrest Walter. Cooper, John Prentiss. Copeland, Clinton Marion.	.'25 CESan Antonio
Collins, Benjamin Fountain	. C 1Galveston
Collins, Edward Schanck	'24 EE Jefferson
Colling Leon Liddell	'22 ChE Floydada
Compton Charles Reed	223 Arr Wago
Conference Northen	20 Ag Watt
Conley, Newton.	24 CEPerryton
Connor, John Franklin	25 Pre-Med Waco
Contreras, Herman Howard	.'23 MERio Grande City
Cook, Charlie Cottingham, Jr	. N 2 Maxwell
Cook. Dugger Elmus.	325 AA Gilmer
Cooper. Forrest Walter	'24 Ag. Center
Cooper, John Prentiss	'25 CE Dallas
Copeland Clinton Marion	Sp CE Graham
Cooper, John Prenuss. Copeland, Clinton Marion. B. S. A. and M. College of Texas, 1918. Corbett, William Carl. Cordell, Ben Early. Coston, John Edward. Cottingame, William Kellie. Covert, John Paulhamus. Cowan, Paul. Cox Carl	. sp. off
Corbett William Carl	'24 TE Fort Worth
Cordell Bon Forly	222 CE Son Antonio
Conten, Den Early	205 DE
Coston, John Edward.	25 EEBrownwood
Cottingame, William Kellie	. 24 Ag Millord
Covert, John Paulhamus	Sp. Ag Dallas
Cowan, Paul	.'24 AgDallas
Cox, Carl	C 1Palmer
Cowan, Paul. Cox, Carl. Cox, Demmie Herbert. Cox, Martin Virgil. Cox, Roland O. Craig, Charles Lawson. Craig, William Guy. Crandall, Charles Andrews. Crane, Clyde C. Crass, Johnnie Bartie. Crawford, James M. Crawford, Leonard Hayden. Crawford, Robert Allison. Creed, Reginald Farquhar. Cretian, Paul D. Creveling, DeWitt, Jr.	'24 Ar Houston
Cox Martin Virgil	C 1 Bertram
Cox Boland O	'25 TE Garrett
Croig Charles Lewron	205 Ag Drockston
Craig, Charles Lawson	20 Ag Drookston
Graig, william Guy.	25 Ag Brookston
Crandall, Charles Andrews	H IGroton, Conn.
Crane, Clyde C	.'22 ChEWichita Falls
Crass. Johnnie Bartie	'25 MEElectra
Crawford, James M	'22 EE Devine
Crawford Leonard Hayden	'25 CE Duncan Okla
Crawford Robert Allison	25 MF San Antonio
Crood Deginald Forgubar	20 ME Davan
Creed, Reginald Farqunar	20 MEDryan
Cretian, Paul D.	ZZ UnEDallas
Creveling, DeWitt, Jr	25 AgSan Luis Potosi,
•	Mexico
Charge Danid Cullon	C 1 Cabinal
Crisp. Albert Sidney	Sp. Ag. Dallas
Crites Edwin Albert	'22 ChE Houston
Crackatt Babart Slatar	22 ChF Chapal Hill
Crowness, Clude Caril	24 UIE
Grosnoe, Glyde Gecil	24 Ag. Eng Hope, Arkansas
Cross, Harry Bristol	25 UE Denison
Criews, David Culler. Crisp, Albert Sidney. Crites, Edwin Albert. Crockett, Robert Slater. Crosnoe, Clyde Cecil. Cross, Harry Bristol. Crow, Clarence L.	Sp. Ag Groveton
·	

STUDENTS.

Cautabanla John Downall 200	י די די	Compute Christi
Gruicksnank, John Fownan 24	- E.E	. Corpus Christi
Cruickshank, John Pownall	I ChE	.Fort Worth
Currie, John Felix	2 ChE	. Houston
Currie Victor Monte	CF	Houston
		D
Curry, George Geoffrey	) AA	. Bay City
Curtis, Thomas Sanford	5 AA	Wills Point
Cuching Emerry Clayton '29	Arr	Stockdalo
Ousning, Billory Olayton	лд	.DUUCKUAIC
Dahlberg, Frank Iver	5 Ag	. Tavlor
Dahlborg Gunnard Alvin '29	λα	Taylor
	лg	
Damon, Archie Mayneid	o Ar	. Houston
Daniel. James R	5 ME	. Gonzales
Darby Eugene Benjamin '9/	CE	Houston
Darby, Eugene Denjamm		Della
Dart, Miles Ethelbert	+ E.E	. Dallas
Dashiell, George R., Jr.	5 ChE	.San Antonio
Davidson Charles Eugene '29	2 EE	Bay City
Devideon, Charles Legence		Dichmond
Daviuson, Charles Lee	AA	. Rienmond
Davidson, Green Adkins	Pre-Med.	. Caldwell
B. S., A. and M. College of Texas, 1920.		
Dahlberg, Frank Iver.       '2'         Dahlberg, Gunnard Alvin.       '2'         Damon, Archie Mayfield.       '2'         Dariel, James R.       '2'         Darby, Eugene Benjamin.       '2'         Darby, Eugene Benjamin.       '2'         Darby, Eugene Benjamin.       '2'         Darby, Eugene Benjamin.       '2'         Dashiell, George R., Jr.       '2'         Davidson, Charles Legene.       '2'         Davidson, Green Adkins.       '2'         Davidson, Jasper Ashworth.       '2'         Davidson, Ray Elmer.       '2'         Davidson, Walter H.       '2'         Davis, Clifford Charles       '2'         Davis, Charlie Howard       '2'         Davis, David.       '2'	2 Ag	. New Boston
Davidson Bay Filmer	TT.	Poarland
Daviuson, way Enner		
Davidson, Walter H	4 CE	.Fort Worth
Davis, Clifford Charles	5 Ag	. Neches
Davis Charlie Howard '29	ਸੰਸ (	Wayahachio
Davis, Charlie Howard.		. Waxanachie
Davis, David	p. Ag	. Corsicana
Davis, Edgar Albert'28	5 TE	Itasca
Davis Harry Claiborne '29	ME	Dallas
David, Harry Clarborne		T a alah ant
Davis, James Herbert	DEE	. Locknart
Davis, Kenneth Edwin	5 CE	. Mansfield
Davis, Roger Floyd '29	ChE	Whitewright
Davia Poy Francia '2	CF	Nagadaahaa
Davis, noy Flancis	со <u>щ</u>	. Nacoguocnes
Davis, Thomas Clement	AA	. Marta
Dealy. Marvin Edward'2	5 <sup>*</sup> Ag	. Houston
Davis, Charlie Howard       '2'         Davis, David.       S         Davis, Edgar Albert.       '2'         Davis, Harry Claiborne.       '2'         Davis, James Herbert.       '2'         Davis, Kenneth Edwin       '2'         Davis, Roger Floyd       '2'         Davis, Roy Francis       '2'         Davis, Thomas Clement.       '2'         Dean, Robert William       '2'         DeAsis, Guillermo       '2'         Deden, Edward Martin       '2'	Pre-Med	Navasota
Dedai, Hobert William	A	
DeAsis, Guillermo	Ag	. Dumangas, P. I.
Deden, Edward Martin	21	. Houston
Deering, Perry Allen Si	n Ag Ed	Millican
DoLongo Walton Howard	CE	Shormon
DeLange, watter noward		. Snerman
DeLee, Herbert Everard	р. ЕЕ	. Dallas
Denham, Claude Spaulding	5 EE	. Lubbock
Denison Ethelbert Bunker '2/	जन्म ।	Waco
Denison, Etherbert Dunker	E 1010	
Denk, Clarence George	$\mathbf{p}$ . Ar	. Cicero, III.
DePasquale, Domenic Victor	LCE	. Dickinson
Detering, Herman Eberhard '2	5 4 4	Houston
DouProo Flijch Juliug	ME	Crockett
Deuriee, Enjan Junus		. CIOCKELL
Dewey, Edward Leon, Jr	) ME	. Tullahoma, Tenn.
Dibble, Jasper Coopsey	o. TE	. ValleviStream, N.Y.
Diekson Hugh	9	Galveston
Districh Anthene The dealed		Dallar
Dietrich, Arthur Frederick	Ag	. Dallas
Dillingham, Harley Clay	2 EE	.Fort Worth
Dilworth James Colwell Jr	131	Gonzales
Dinan Loopard Frederick	$\gamma_{2}$	Silahoo
Dinan, Leonaru Frederick	Ag	Suspee
Dinwiddle, Otto Dudley	Ag	.Tulia
Dockum, Oscar Leonard	2 ME	. Corsicana
Dodd Barney Airheart '2	Δr	Voakum
Dodd Harbort Anthen	A	T
Dodd, Herbert Arthur	• Ag	. Langtry
Dodge, Lee	l ChE	. Abilene
Dodson, Lewis	5 Ag	Amarillo
Dodgon Samuel Broading	A TA	Collogo Station
Douson, Samuel Dreeding	Ag. La	ounege station
Denison, Ethelbert Bunker	2 ChE	. Mercedes
Demelal Deserver 201		
Donald, Pryor	Ag	.Fort Worth

.

.

Dougherty, Harry, Jr. Douthit, Lawrence Henry. Dowlen, Glen Wade. Downs, Frederick Holston, Jr. Drake, Rowe Shear. Dreeke, Harold Lewis. Dreyfuss, Arthur J. Driggs, Orval Truman. Drisdale, John Virg. Drummett, Paul Wright. DuBois, Harold Vantrese. Duckett, Harris Davis. Dudley, Daniel Ishom Duff, Emory. Dugosh, Raymond Adolph. Duke, Ernest Ray. Dulaney, Ruel Noble. Dunn, Herman. Dunn, James Howell. Dunnam, Leigh Keats. Dunnam, Samuel Whitington. Dwyer, Patrick Anthony.	.'22 EE Blackwell, Okla.
Douthit, Lawrence Henry	Sp. AA Dallas
Dowlen Glen Wade	Č1 Hanny
Downs Frederick Holston Ir	$^{\prime}23 \Delta \alpha$ Falls
Droko Rowo Shoor	25 FF Winchostor
Drack, Howe Silear	20 An Con Antonio
Dreeke, Harold Lewis	. 22 AF San Antonio
Dreyluss, Arthur J	. 24 CE San Antonio
Driggs, Orval Truman	. N 2 Talihina, Okla.
Drisdale, John Virg	.'24 AgJuno
Drummett, Paul Wright	.'22 EEHouston
DuBois, Harold Vantrese.	.'24 TEDallas
Duckett, Harris Davis	'25 Ag. Eng Houston
Dudley, Daniel Ishom	'25 Ag Plano
Duff Emory	N 1 Galveston
Duroch Raymond Adolph	225 CF San Antonio
Dugosh, Naymond Adoiph	205 An Cloude
Duke, Ernest Ray	. 25 Ag Claude
Dulaney, Ruel Noble	. 25 E.E Mart
Dunn, Herman	.'23 ChE Dallas
Dunn, James Howell	.'25 ME Dallas
Dunnam, Leigh Keats	.'24 MECorpus Christi
Dunnam, Samuel Whitington	.'25 ME Corpus Christi
Dwyer, Patrick Anthony	'22 AA San Antonio
Eargle, Robert Gray. Earle, John Sears. Easton, Robert Browning. Ebeling, Leo Reynold. Eby, Albert Newman. Edds, George Henry. Edgley, Max. Edmonson, Joe Meredith. Edmundson, James Stith. Edwards, Cyrus Leroy. Egan, Allen Lyman. Ehlert, Robert Jerome. Eitt, Henry William. Elder, Theodore Allen. Elkins, Leota Walter.	'25 FF Fort Worth
Farlo John Soorg	
Earle, John Sears	200 A
Easton, Robert Browning	. 23 Ag Sinton
Ebeling, Leo Reynold	. 22 ME Plainview
Eby, Albert Newman	.'25 EEAustin
Edds, George Henry	.'25 AA Hebbronville
Edgley, Max.	.'24 ChEPort Arthur
Edmonson, Joe Meredith.	N 1 Waxahachie
Edmundson, James Stith	'25 CE Waco
Edwards Cyrus Leroy	'24 ME San Antonio
Edwards, Oyrus Deroy	222 Ag Dollag
Eplant Debart Israma	200 Ag Houston
Ellert, Robert Jerome	22 Ag Houston
Eitt, Henry William	. 25 E.E
Elder, Theodore Allen	. 25 Ag Palacios
Elkins, Leota Walter Elliott, Arthur Lee Elliott, Lawrence Clifton	. Sp. Ag Tulia
Elliott, Arthur Lee	.'25 ChE Corsicana
Elliott, Lawrence Clifton	. 25 EE Greenville
Elliott, Ray	. Sp. Ar Logansport, La.
Ellisor, Grover C	Sp. Ag Evergreen
El Nouty, Abd El aziz Hassan	'25 Ag Cairo, Egypt
Engel Kenneth Earl	'25 EE Seguin
England Babart Barmond	'22 Ag Williamshurg Pa
England, Robert Raymond	205 Dro Mod Componen
Epperson, Roswell Stewart	204 CE
Erskine, Alexander Madison	. 24 CE San Antonio
Erwin, Will Bailey	. 24 ME Fort Worth
Eschenburg, Carl Robert	.'24 ChE Floresville
Estep, Forest Lynn	.'25 ME Dallas
Eubank. Bransford	.'22 AgBvrds
Euhank, Broocke Knight	'24 ChE Cross Plains
Evans Andrew Jackson	'25 EE San Antonio
Evans Jawel Jones	'25 ME El Campo
Evenett William Israph	22 FF Fort Worth
Everett, winam Joseph	294 EE
Elliott, Lawrence Clifton Elliott, Ray. Elliott, Ray. Ellisor, Grover C. El Nouty, Abd El aziz Hassan. Engel, Kenneth Earl. England, Robert Raymond. Epperson, Roswell Stewart. Erskine, Alexander Madison. Erwin, Will Bailey. Eschenburg, Carl Robert. Estep, Forest Lynn. Eubank, Bransford. Eubank, Bransford. Evans, Andrew Jackson. Evans, Jewel Jones. Everett, William Joseph. Ewbank, Eric Erroll.	. 24 E.E
Esherr Carold Call	200 Am Normanta
Faney, Gerald Calnoun	. ZZ Ag Navasota
rair, Dewald L	. Sp. Ag Hillsboro
Fancher, Ben Bedford	. 25 EE Seymour
Fahey, Gerald Calhoun Fair, Dewald L Fancher, Ben Bedford Farmer, William Harold	. 24 IE College Station

Farquhar, Robert Edward Fason, Eugene B Faulk, Nathan Morris. Faulkner, Richard Campbell Faure, Leonard Leopold Fawcett, Horace Keyes. Fay, Owen James. Fenstermaker, Arthur Ferreira, Jose Constantino.	INF OR TO I
Farquhar, Robert Edward	.'25 CE Ennis
Fason, Eugene B	.'22 EEWaco
Faulk, Nathan Morris	'25 EE Corpus Christi
Faulkner Bishard Campbell	'22 CE Sherman
Faukher, Inchard Campbell.	299 ChE Houston
Faure, Leonard Leopoid	. 25 CHE Houston
Fawcett, Horace Keyes	. 25 Ag Del Rio
Fav. Owen James.	.'24 EE
Fenstermaker, Arthur	'24 Ar San Antonio
Formaina Laga Constanting	Sn Ag San Carlos-Sud
reffena, Jose Constantino	· Sp. Ag
	Argentine, S. A.
Ferrucci, Ferruccio Joseph	.'24 Ar Galveston
Field, Stanton McNeal	.'25 CELockhart
Field William West	'24 CE Lockhart
Finley William Westerney	25 Ag Auctin
Ferrucci, Ferruccio Joseph. Field, Stanton McNeal. Field, William West. Finks, Jack Eubank. Finney, Clarence Jack. Fischer, Chester Fred. Fisher, Norman Fitzwilliam, Morgan Sayers. Flinn, James Eber. Flinn, James Eber. Flint, William Edward. Flowers, Alsop Edward Floyd, Charles Henry. Foerster, Alvin E. Foester, Louis. Ford, Billie Lester. Forga, Louis Alfred.	NO A TIVIL Delut
Finney, Clarence Jack	. ZZ Ar Wills Point
Fischer, Chester Fred	.'22 MENew Braunfels
Fisher, Norman	.'25 ME Cuero
Fitzwilliam Morgan Savers	'23 EE Smithville
Eline Easteine Edmand	
Flinn, Fontaine Edward	. 22 Ag Cameron
Flinn, James Eber	. 25 AA Cameron
Flint, William Edwin	.'25 Ag
Flowers: Alson Edward	'25 ChE Dallas
Flowers, moop Buward	204 FF Circo
Floyd, Charles Henry	. 24 E.E
Foerster, Alvin E	. 25 AA Rosenberg
Foester. Louis	.'25 AgPort Lavaca
Ford, Billie Lester	'25 CE Greenville
Forga, Louis Alfred	Sp Ag Aroquing Paru
roiga, houis Ameu	. op. Ag Arequipa, Ieru,
	S. A.
Forgason, Jack Pope	.'25 AgSan Antonio
Forgason, James Yewell	.'25 AASan Antonio
Forrest Francis Bedford	'23 Ag Wayahachia
Forgason, Jack Pope. Forgason, James Yewell. Forrest, Francis Bedford. Forrester, Vade Giles. Forsyth, David Manson. Foster, Carroll Conyes. Foster, Robert Field. Foster, Thomas Orion. Foster, Willett Sims. Fountain, Eugene Royce. Fountain, James Milton. Fouraker, Robert Winston. Fram, Phillip. Franke, Nonnonie Leland.	Polton
Forrester, vade Glies	· 20 Ag Deiton
Forsyth, David Manson	.'22 ME McKinney
Foster, Carroll Conves	.'25 EE
Foster Robert Field	'24 ME Fort Worth
Fostor, Thomas Orion	202 CE Son Antonio
Foster, Thomas Orion	122 CE
roster, willett Sims	. 22 Ag Marlin
Fountain, Eugene Royce	.'25 CE Ennis
Fountain, James Milton	'24 AABrvan
Foursker Robert Winston	'22 ChE Dallas
Fouraker, Robert Willston	202 CE Dallar
Fram, Philip	. 23 CE Dallas
Franck, Sol Rheim	.'24 MESan Antonio
Franke, Nonnonie Leland.	. Sp. Ag El Campo
Franke Paul Conrad Jr	22 TE El Campo
Frang Coorgo Soundarg	'25 ME Collogo Station
Traps, George Saunders	Gr CE Callers Station
Frary, Rodney William	. Sp. CE College Station
Fraser, Claud Kirk	.'23 Ag College Station
Frazier, Oscar Howard	'22 Ag. Hillsboro
Frede Leo Henry	'22 Ag La Grange
Frederick Warma D	PEAA Discrime Dromo
Frederick, wayne D	. 25 AA Blooming brove
Frederick, William Richard, Jr	.25 CE Fort Worth
Freeborough, Benjamin Bonnett	.'25 CE
Freeman Ernest Maynard	'22 CE Marshall
Freese Thomas Wills	N 1 Plogom
Encine Electron A	205 OE
Franck, Sol Rheim. Franke, Nonnonie Leland. Franke, Paul Conrad, Jr. Fraps, George Saunders. Frary, Rodney William. Fraser, Claud Kirk. Frazier, Oscar Howard. Frede, Leo Henry. Frederick, Wayne B. Frederick, William Richard, Jr. Freeborough, Benjamin Bonnett. Freeman, Ernest Maynard. Freese, Thomas Wilk. Freire, Floriano A.	. 25 UE Kio Grande do
	Norte, Brazil
Frev. Harry-Frederick	.'25 EE
Friedlander Louis Herman	22 ChE Colvert
Frey, Harry Frederick Friedlander, Louis Herman Fritchie, Charles Julius	
Fritenie, Charles Julius	. 20 UE Sindell, La.
Fritts, Kye Fry, Cecil	. Sp. Ag Comanche
Fry, Cecil	.'25 AgPike
	- · · ·

Fuche Logonh '99 ChF	Curproga Milla
Fuchs, Joseph	Cypress mins
Fuqua, Claude Clement	. Pineville, La.
Furneaux, William Frederick	Dallas
Fuchs, Joseph	Waaa
Fuston, Robert Lee.'25 EE.Gaddis, Harry Passmore.'25 AA.Gaines, Richard Houston.N 1.Gainey, Walter Clarence.'24 Ag.Galbraith, John Warren.'25 CE.Galbraith, Oliver, Jr.'25 ME.Gandy, Rema Estus.'25 CE.Gardner, James Eldridge.'22 Ar.Gardner, Marion Bernard.Sp. TE.Garland, Loyd.'23 Ag.Garnett, Edward Winne.'23 CE.Garrett, George Moss.'23 CE.Garrett, George Moss.'23 CE.Garrett, George Moss.'24 EE.Garry, Mahon Barker.'25 Ag.Gaston, Eldred Lenox.'24 AA.Gaston, Edwin Willmer.'24 AA.Gaston, Edwin Willmer.'24 AA.Gatlin, Carl Earl.'25 AA.Gatlin, Eugene N.'24 Ag. Eng.Gatlin, Eugene N.'24 Ag.Gatlin, Eugene N.'24 Ag.Gelber, Isidore.'25 Ag.Gelber, Isidore.'25 Ag.Gibson, Alonzo Newton.'25 EE'.Gibson, Donne Evans.Sp. ME.Gibson Fertal L'25 CE'.Gibson Fertal L'25 CE'.	. Waco
Gaddis, Harry Passmore	Cotulla
Gaines Richard Houston N1	Detroit
	Consider 1
Gainey, Walter Clarence	Grapeland
Galbraith. John Warren	Belton
Galbraith Oliver Ir '25 ME	Pine Bluff Ark
	Difference Dian, Mik.
Gandy, Rema Estus	Bryan
Gardner, James Eldridge	Comanche
Gardner Marion Bernard Sp. TE	Tyler
Gardier, Marton Demard	. I ylei
Garitty, Benjamin Joseph	Corsicana
Garland, Lovd	. Hope, Arkansas
Cornett Edward Winne '22 CE	Donton
Garnett, Edward Winne	Denton
Garrett, George Moss	Paris
Garrett, Richard Lawrence	Weimar
Garry Mahon Barker '25 Ag	Taylor
Garry, Malon Darker 25 Ag	
Gaston, Eldred Lenox	Nacogdoches
Gaston, Edwin Willmer	Nacogdoches
Gaston Thomas Loo In '24 AA	Maro
Gaston, Thomas Lee, Jr.	. WIVIA
Gatlin, Carl Earl	. Miami
Gatlin, Eugene N. '24 Ag, Eng	Ladonia
Corr Convol Innious	Magaon
Gay, Samuel Junious	. Moscow
Gelber, Isidore	Bryan
Gentry, Oliver Curtis '25 Ag	Acme
Cibron Alongo Norton 205 FD.	Coincartillo
Gibson, Alonzo Newton	Gamesvine
Gibson, Donne Evans	. Port Lavaca
Gibson Estell L '25 CE	Burkhurnett
	T uflin
Gibson, Donne Evans	Luikin
Gibson, William Meade	. Commerce
Giffin, Horace Adelbert.       C1.         Gilchriest, Eugene Daniel.       '25 Ag.         Giles, Dorris David.       '22 VM.         Gill, E. King.       '25 AA.	Sahinal
Cilcheint Engen David	Den Wien
Glichriest, Eugene Daniei	. Bon wier
Giles, Dorris David	. Houston
Gill E King '25 AA	Dallas
Gill, Robert Lee Roy.Sp. Ag.Gilley, Thomas G.'23 EE.Gilliand, Samuel Walter.C 2.Ginn, Victor Lovelace.'24 ME.Gips, Manfred Otto.'25 EE.Citter Manared Otto.'25 EE.	Name
Gill, Robert Lee Roy Sp. Ag	. Normanna
Gilley, Thomas G	Caldwell
Gilliland Samuel Walter C 2	Decatur
Cine Vister Leveland	Cramburr
Ginn, victor Lovelace	Granbury
Gips, Manfred Otto	Yorktown
Gist Marcus Sn Ag	Odessa
	Cilmon
Glass, Clark	Gilmer
Glazener, Verna Ray	. Fairfield
Glenney Balph H '25 ME	San Antonio
Cables, Years Harts 195 ChE	Cuono
Gonike, venor Herbert	. Cuero
Gohmert, Edward Herman	Yorktown
Golasinski Leonard Bernard '25 ME	Houston
	Dent Wenth
Golden, Charlie Harry 22 EE	.Fort worth
Gomez, Federico	. Monterey, Mexico
Gonzales Bafael '25 ME	San Antonio
	Alia
Goodenough, Herbert Francis	Ance
Gorman. Carl Frederick	. Winnsboro
Gorman John Alexander '22 Ag	Bogumont
Com House The Andrews 100 Mg.	Abilana
Goss, Harvey Theo ZZ ME	Abliene
Goss, Henry Volandis	Abilene
Gould John Thomas Sn Ag	Maysfield
	Wannaam Mariaa
Govea, Herminio	. 1 orreon, Mexico
Grace, John Floyd	. Bishop
Gips, Manfred Otto.'25 EE.Gist, Marcus.Sp. Ag.Glass, Clark.'25 AA.Glass, Clark.'25 AA.Glazener, Verna Ray.'22 Ag. Ed.Glenney, Ralph H.'25 ME.Gohlke, Venor Herbert.'25 ChE.Gohke, Venor Herbert.'25 ChE.Gohke, Venor Herbert.'25 ME.Golden, Charlie Harry.'22 EE.Gonzales, Rafael.'25 ME.Goodenough, Herbert Francis.'25 ME.Gorman, Carl Frederick.'24 CE.Gorman, John Alexander.'23 Ag.Goss, Harvey Theo.'22 ME.Gould, John Thomas.Sp. Ag.Govea, Herminio.'23 Ag.Govea, Herminio.'23 Ag.Grace, John Floyd.'25 Ag.Graham, Calhoun McCulloch.'24 Ag.	Brvan
Granding Connound Incountoint, ME ME	

Graham, Jose Carlos	Mexico
Graves, John Arthur Gray, Benjamin Frank Gray, William Fred	'24 Ag East Andover, N.
Gray, Benjamin Frank	'25 AgSlocum
Gray, William Fred	'24 Ar Beaumont
Gray, William Fred. Green, James Lee. Green, Sidney Minton. Green, William Levis. Greening, Kenneth Gilbert. Greenslade, Vivian Rolston. Greenslade, Vivian Rolston. Greer, Dewitt Carlock. Greer, Dewitt Carlock. Greer, Lainer. Gregory, Clyde Rivers. Griffin, George Bradford. Griffin, Balph Eugene	Sp. AgBailey
Green, Sidney Minton	'25 AA Denison
Green, William Levis	
Greening, Kenneth Gilbert	'24 TE Hope, Arkansas
Greenslade Vivian Bolston	'25 AA Kaufman
Greenstreet Wilbur Horaco	25 FF Larodo
Groop Dowitt Corlealr	20 CF Dittahurg
Green, Dewitt Carlock	204 EE Son Antonio
Greer, Lamer	24 EE
Gregory, Clyde Rivers	N I Brooksnire
Griffin, George Bradford	24 EE Henderson
Griffin, Ralph Eugene	$\dots$ N 1 $\dots$ Dallas
Griffith, Ralph Eugene. Griffith, Fuller Orville, Jr Griffith, Lawrence Henry. Grissom, Samuel Benson.	'23 EEQuanah
Griffith, Lawrence Henry	'25 CEQuanah
Grissom, Samuel Benson,	'25 ME Granbury
Groce, Byrnie E	M 1 Lometa
Groce, Byrnie E Groginsky, Ross Lee Grothaus, Frederick Edward	'25 CF Bryan
Grothaus Frederick Edward	'22 CE San Antonio
Grover Orion Andrew	U 1 Uouston
Grover, Orion Andrew	H I Houston
Grover, Orion Andrew Grover, Rufus Markham Guiberson, Harry Ronald	25 E.E Houston
Guiberson, Harry Ronald	
Gillion Wada Kantrass	295 MR: Austin
Gulley, Luallen. Gunter, Elma Curtiss. Gunter, Herbert L Gurinsky, Wolford Lowell. Gurwitz, Jacob Alexander Marcus.	Sp. Ag DeBerry
Gunter, Elma Curtiss	'25 AASan Angelo
Gunter, Herbert L.	'25 Pre-Med Plainview
Gurinsky, Wolford Lowell	'25 ChE Gonzales
Gurwitz, Jacob Alexander Marcus	'22 EE San Antonio
Gustavus, Onnie C	Sn Ag Bryan
Guthrie Syle Voskum	25 ME Dallag
Gustavus, Onnie C Guthrie, Syle Yoakum Guynes, John Rice	'22 TEChatfield
Hail, William Dudley Hailey, Cyrus Hale Hairston, Charles L Hairston, Robert Roy Hale, Fred Hale, Will Carlton Holey, Will Carlton	294 Age Croalcott
Hallow Curring Halo	200 Am Monlin
Halley, Cyrus Hale	205 ME Dentlett
Hairston, Charles L	25 ME Bartlett
Hairston, Robert Roy	
Hale, Fred	'22 'Ag Tulia
Hale, Will Carlton	'23 AgAbilene
Haley, William Byron	Sp. AgOakwood
Hall, Russell Winston	'22 ChE Robstown
Hallaran, Raymond Patrick	'25 EE
Hamilton, Harry Blaine	'25 AA
Hamilton, Olan Harvey	'23 ChE Bonham
Hamilton Vivian Earle Jr	'25 EE San Antonio
Hamilton William Brooks	'22 ME Houston
Hammott Homer Cisere	22 FF Indraopytillo
Hammett, Homer Oldero	
Handerry, william Frederic	25 EE Houston
Hancock, Austin Pruett	25 CE Fort Worth
Hancock, William Jennings	$\therefore$ 24 ME Paris
Haney, Oren Buel	'23 TE Waco
Hanley, Robert Dellar	'25 ChE Dallas
Hanly, Edward William	'22 AgEagle Lake
Hanna, Frank W.	
Hannaford, William Edwin	'22 CE Granhury
Harhison Dewitt Albert	'24 Ag Granger
Hale, Will CarltonHaley, William ByronHall, Russell WinstonHallaran, Raymond PatrickHamilton, Harry BlaineHamilton, Olan HarveyHamilton, Vivian Earle, JrHamilton, William BrooksHammett, Homer CiceroHanberry, William FredericHancock, Austin PruettHancock, William JenningsHanley, Robert DellarHanly, Edward WilliamHanna, Frank WHannaford, William EdwinHarbison, Dewitt AlbertHardman, Benjamin Joseph	N 1 Loopord
natuman, Denjamin Joseph	IN I Leonard
Handman John Jamon	
Hardman, Benjamin Joseph Hardman, John James Hardy, Augustus Lipscomb	

ւ

	** * ** ** 1			4 7 17
	Hardy, Ernest Hugh Harlan, Sam Harper, Benjamin Preston	. 25	AA	. Abilene
<u>_</u>	Harlan, Sam	.'24	ChE	. Plainview
	Harper, Benjamin Preston	.'25	ME	. Dallas
	Harper, Floyd	. Sp.	. Ag	. Cooper
	Harpole, Earl Yale	.'24	ME	. Houston
	Harrell, Willis Horace	.'24	Ag	.Sherman
	Harrington, Harold Ernest	.'24	EĒ	. Dayton
	Harrington, Marion Tom	.'22	ChE	. Plano
	Harper, Benjamin Freston Harper, Floyd Harpole, Earl Yale. Harrington, Harold Ernest. Harrington, Marion Tom. Harris, Grady Woodfin. Harris, Hugh Kirkman.	.'22	Ag	. Mobeetie
	Harris, Hugh Kirkman	.'25	Ag	. Temple
•	Harris, James Buford	. C	1	Blooming Grove
	Harris, James Buford Harris, Robert Emmett	'23	Ag	Walsenburg, Colo.
	Harris. Will D.	.'24	CĔ	Quitman
	Harrison. Bosie B.	Sp.	Ag	. Ďetroit
	Harrison, Bryan Payne	'25	AA	Palmer
	Harrison, Robert Dittman	'25	EE.	Allevton
	Harrison, Raymond John	'25	Ar	Waco
	Harrison, Sam Evette	Sn	Ασ	Bryan
	Hartman William	25	CE	Lockhart
	Hartshorn Wallace B	25	CE	Fort Worth
	Harting George Herman	122	ChE	Houston
	Hashauar Harman	121	ME	San Antonio
	Hatfield Theodore Coeil	24	FF	Pottshoro
	Hattield, Herold Fuller	191	Δ	Chickenha Okla
	Haves, Harbig Fuller	24 .	Ag	Fort Worth
	Haywood Thomas Solmon	20.	AA	Ponument
	Haywood, Thomas Selman	20 .	AA	Angen
	Heard Hormon Cordon	20 2	Ag	Bowio
	Heartfold Dichard Compish	100	A.A	Sour Lako
	Harris, Will D. Harrison, Bosie B. Harrison, Bryan Payne. Harrison, Robert Dittman Harrison, Raymond John Harrison, Sam Evette. Hartman, William Hartshorn, Wallace B. Hartung, George Herman Haslbauer, Herman Hatfield, Theodore Cecil. Hayes, Harold Fuller. Hayes, Jack Harper. Haywood, Thomas Selman Heald, C. Metza Heard, Herman Gordon. Heartfield, Richard Cornish Heffner, Frederick Spencer.	40	Ar	Bonhom
	Henner, Frederick Spencer	2	4	West
	negar, waller			
	Ugon Frank Fordinand	205	Dro Mod	Shinor
	Heger, Frank Ferdinand	25	Pre-Med.	Shiner
	Heger, Frank Ferdinand	25 25	Pre-Med EE	Shiner Mineola
	Heger, Frank Ferdinand Hemphill, Carthell Hubert Hendrick, Harold Eugene.	'25 '25 '25	Pre-Med EE ChE	, west Shiner Mineola Paris Developher Brezil
	Heartheid, Kichard Cornish Heffner, Frederick Spencer	'25 '25 '25 Sp.	Pre-Med EE ChE Ag	west Shiner Mineola Paris Parahuba, Brazil
	Heger, Frank Ferdinand Hemphill, Carthell Hubert Hendrick, Harold Eugene Henriques, Paulo de Miranda Henry, Charles Egbert.	25 25 25 25 25 25	Pre-Med EE ChE Ag	Mineola Paris Parahuba, Brazil Navasota
	Heger, Frank Ferdinand Hemphill, Carthell Hubert Hendrick, Harold Eugene Henriques, Paulo de Miranda Henry, Charles Egbert. Henry, Herman Kennedy	25 25 25 25 25 25 24	Pre-Med           EE           ChE           Ag           AA           Ag	Mineola Mineola Paris Parahuba, Brazil Navasota Denison
	Heger, Frank Ferdinand	25 25 25 25 25 25 24 23	Pre-Med         EE         ChE         Ag         Ag         AG         TE	West Shiner Mineola Paris Parahuba, Brazil Navasota Denison Shelbyville
	Heger, Frank Ferdinand Hemphill, Carthell Hubert Hendrick, Harold Eugene Henriques, Paulo de Miranda Henry, Charles Egbert Henry, Herman Kennedy Henry, Marion Bryan Hensarling, Thomas Andrew.	25 25 25 25 25 25 25 24 23 22 22	Pre-Med EE. Ag. Ag. Ag. TE. TE.	West Shiner Mineola Paris Parahuba, Brazil Navasota Denison Shelbyville Bryan Colderell
	Heger, Frank Ferdinand Hemphill, Carthell Hubert Hendrick, Harold Eugene Henriques, Paulo de Miranda Henry, Charles Egbert Henry, Herman Kennedy Henry, Marion Bryan Hensarling, Thomas Andrew Henslee, Selden Wood.	25 25 25 25 25 25 25 25 24 23 22 22 25	Pre-Med EE ChE Ag Ag TE Ag CE CE	West Shiner Mineola Paris Parahuba, Brazil Navasota Denison Shelbyville Bryan Caldwell
	Heger, Frank Ferdinand. Hemphill, Carthell Hubert. Hendrick, Harold Eugene. Henry, Charles Egbert. Henry, Charles Egbert. Henry, Marion Bryan. Hensarling, Thomas Andrew Henslee, Selden Wood. Herrington, Harold Reeves.	25 25 25 25 25 25 25 25 24 23 22 25 25 25	Pre-Med EE. ChE Ag Ag TE. Ag EE. ChE.	West Shiner Mineola Paris Parahuba, Brazil Navasota Denison Shelbyville Bryan Caldwell Floresville
	Heger, Frank Ferdinand. Hemphill, Carthell Hubert. Hendrick, Harold Eugene. Henriques, Paulo de Miranda. Henry, Charles Egbert. Henry, Marion Bryan. Hensarling, Thomas Andrew Henslee, Selden Wood. Herrington, Harold Reeves. Herrling, Frederick Charles.	25 25 25 25 25 25 25 25 25 22 25 25 25 2	Pre-Med EE ChE Ag AA A A CE EE ChE Ag	West Shiner Mineola Paris Parahuba, Brazil Navasota Denison Shelbyville Bryan Caldwell Floresville Kurten
	Heger, Frank Ferdinand. Hemphill, Carthell Hubert. Hendrick, Harold Eugene. Henriques, Paulo de Miranda Henry, Charles Egbert. Henry, Herman Kennedy Henry, Marion Bryan. Hensarling, Thomas Andrew. Henslee, Selden Wood. Herrington, Harold Reeves. Herrling, Frederick Charles. Herrmann, Frederick Davenport.	25 25 25 25 25 25 25 22 23 22 25 25 25 25 25 25 25 25 25 25 25 25	Pre-Med EE ChE Ag Ag TE Ag EE ChE Ag Ag ChE	West Shiner Mineola Paris Parahuba, Brazil Navasota Denison Shelbyville Bryan Caldwell Floresville Kurten Galveston
	Heger, Frank Ferdinand	25 25 25 25 25 25 25 25 25 25 25 25 25 2	Pre-Med EE ChE Ag Ag TE Ag ChE ChE Ag Ag CE	Shiner Mineola Paris Parahuba, Brazil Navasota Denison Shelbyville Bryan Caldwell Floresville Kurten Galveston New Braunfels
	Heger, Frank Ferdinand. Hemphill, Carthell Hubert. Hendrick, Harold Eugene. Henriques, Paulo de Miranda. Henry, Charles Egbert. Henry, Herman Kennedy. Henry, Marion Bryan. Hensarling, Thomas Andrew. Henslee, Selden Wood. Herrington, Harold Reeves. Herrling, Frederick Charles. Herry, Benjamin Franklin. Hester, Blum Elsworth.	25 25 25 25 25 25 25 25 25 25 25 25 25 2	Pre-Med EE ChE Ag Ag TE Ag ChE Ag ChE Ag CE Ag	Shiner Mineola Paris Parahuba, Brazil Navasota Denison Shelbyville Bryan Caldwell Floresville Kurten Galveston New Braunfels Crockett
	Heger, Frank Ferdinand. Hemphill, Carthell Hubert. Hendrick, Harold Eugene. Henriques, Paulo de Miranda. Henry, Charles Egbert. Henry, Marion Bryan. Hensarling, Thomas Andrew Henslee, Selden Wood. Herrington, Harold Reeves. Herrling, Frederick Charles. Herrmann, Frederick Davenport. Herry, Benjamin Franklin. Hester, Blum Elsworth. Hester, Stephen Garvin.	25 25 25 25 25 25 25 25 25 25 25 25 25 2	Pre-Med EE ChE Ag AA A A Ag EE ChE Ag ChE Ag CE Ag CE Ag	West Shiner Mineola Paris Parahuba, Brazil Navasota Denison Shelbyville Bryan Caldwell Floresville Kurten Galveston New Braunfels Crockett Thomas
	Henry, Charles Egbert. Henry, Herman Kennedy. Henry, Marion Bryan. Hensarling, Thomas Andrew. Henslee, Selden Wood. Herrington, Harold Reeves. Herrling, Frederick Charles. Herry, Benjamin Franklin. Hester, Blum Elsworth. Hester, Stephen Garvin. Hiatt Armstaed Miller Ir	25 24 222 225 25 25 25 25 25 25 25 25 25 25 2	AA AA TE EE ChE Ag Ag CE Ag CE Ag CE CE	Navasota Denison Shelbyville Bryan Caldwell Floresville Kurten Galveston New Braunfels Crockett Thomas Vernon
	Henry, Charles Egbert. Henry, Herman Kennedy. Henry, Marion Bryan. Hensarling, Thomas Andrew. Henslee, Selden Wood. Herrington, Harold Reeves. Herrling, Frederick Charles. Herry, Benjamin Franklin. Hester, Blum Elsworth. Hester, Stephen Garvin. Hiatt Armstaed Miller Ir	25 24 222 225 25 25 25 25 25 25 25 25 25 25 2	AA AA TE EE ChE Ag Ag CE Ag CE Ag CE CE	Navasota Denison Shelbyville Bryan Caldwell Floresville Kurten Galveston New Braunfels Crockett Thomas Vernon
	Henry, Charles Egbert. Henry, Herman Kennedy. Henry, Marion Bryan. Hensarling, Thomas Andrew. Henslee, Selden Wood. Herrington, Harold Reeves. Herrling, Frederick Charles. Herry, Benjamin Franklin. Hester, Blum Elsworth. Hester, Stephen Garvin. Hiatt Armstaed Miller Ir	25 24 222 225 25 25 25 25 25 25 25 25 25 25 2	AA AA TE EE ChE Ag Ag CE Ag CE Ag CE CE	Navasota Denison Shelbyville Bryan Caldwell Floresville Kurten Galveston New Braunfels Crockett Thomas Vernon
	Henry, Charles Egbert. Henry, Herman Kennedy. Henry, Marion Bryan. Hensarling, Thomas Andrew. Henslee, Selden Wood. Herrington, Harold Reeves. Herrling, Frederick Charles. Herry, Benjamin Franklin. Hester, Blum Elsworth. Hester, Stephen Garvin. Hiatt Armstaed Miller Ir	25 24 222 225 25 25 25 25 25 25 25 25 25 25 2	AA AA TE EE ChE Ag Ag CE Ag CE Ag CE CE	Navasota Denison Shelbyville Bryan Caldwell Floresville Kurten Galveston New Braunfels Crockett Thomas Vernon
	Henry, Charles Egbert. Henry, Herman Kennedy. Henry, Marion Bryan. Hensarling, Thomas Andrew. Henslee, Selden Wood. Herrington, Harold Reeves. Herrling, Frederick Charles. Herry, Benjamin Franklin. Hester, Blum Elsworth. Hester, Stephen Garvin. Hiatt Armstaed Miller Ir	25 24 222 225 25 25 25 25 25 25 25 25 25 25 2	AA AA TE EE ChE Ag Ag CE Ag CE Ag CE CE	Navasota Denison Shelbyville Bryan Caldwell Floresville Kurten Galveston New Braunfels Crockett Thomas Vernon
	Henry, Charles Egbert Henry, Herman Kennedy Henry, Marion Bryan. Hensarling, Thomas Andrew. Henslee, Selden Wood. Herrington, Harold Reeves. Herrling, Frederick Charles. Herry, Benjamin Franklin. Hester, Blum Elsworth. Hester, Blum Elsworth. Hester, Stephen Garvin. Hiatt, Armstead Miller, Jr. Hickman, James Butler. Hicks, Fred Earl. Hicks, Fred Earl. Higginbotham, Mack Whiteside. Higginbotham, Wilbur.	254 222 225 225 225 225 225 225 225 225	AA.         AA.         TE.         Ag.         EE.         ChE.         Ag.         CE.         Ag.         CE.         Ag.         CE.         Ag.         CE.         ME.         CE.         CE.         ME.         CE.         ME.	Navasota Denison Shelbyville Bryan Caldwell Floresville Kurten Galveston New Braunfels Crockett Thomas Vernon College Station Denver, Colorado Conroe Alvin Dallas
	Henry, Charles Egbert	222 2222 2222 2222 2222 2222 2222 2222 2222	AA AA AA CE ChE Ag Ag CE Ar Ag CE Ar CE L ME CE CE L	Navasota Denison Shelbyville Bryan Caldwell Floresville Kurten Galveston New Braunfels Crockett Thomas Vernon College Station Denver, Colorado Conroe Alvin Dallas Cooper
	Henry, Charles Egbert Henry, Charles Egbert Henry, Marion Bryan. Hensarling, Thomas Andrew. Henslee, Selden Wood. Herrington, Harold Reeves. Herrling, Frederick Charles. Herrmann, Frederick Davenport. Herry, Benjamin Franklin. Hester, Blum Elsworth. Hester, Stephen Garvin. Hiatt, Armstead Miller, Jr. Hickman, James Butler. Hicks, Fred Earl. Hicks, Fred Earl. Higginbotham, Mack Whiteside. Higginbotham, Wilbur. Higgins, Oscar Lee.	22222222222222222222222222222222222222	AA AA TE EE ChE Ag ChE Ag Ag CE Ag Ag CE CE CE CE CE CE CE CE CE CE CE CE CE	Navasota Denison Shelbyville Bryan Caldwell Floresville Kurten Galveston New Braunfels Crockett Thomas Vernon College Station Denver, Colorado Conroe Alvin Dallas Cooper
	Henry, Charles Egbert Henry, Charles Egbert Henry, Marion Bryan. Hensarling, Thomas Andrew. Henslee, Selden Wood. Herrington, Harold Reeves. Herrling, Frederick Charles. Herrmann, Frederick Davenport. Herry, Benjamin Franklin. Hester, Blum Elsworth. Hester, Stephen Garvin. Hiatt, Armstead Miller, Jr. Hickman, James Butler. Hicks, Fred Earl. Hicks, Fred Earl. Higginbotham, Mack Whiteside. Higginbotham, Wilbur. Higgins, Oscar Lee.	22222222222222222222222222222222222222	AA AA TE EE ChE Ag ChE Ag Ag CE Ag Ag CE CE CE CE CE CE CE CE CE CE CE CE CE	Navasota Denison Shelbyville Bryan Caldwell Floresville Kurten Galveston New Braunfels Crockett Thomas Vernon College Station Denver, Colorado Conroe Alvin Dallas Cooper
	Henry, Charles Egbert Henry, Charles Egbert Henry, Marion Bryan. Hensarling, Thomas Andrew. Henslee, Selden Wood. Herrington, Harold Reeves. Herrling, Frederick Charles. Herrmann, Frederick Davenport. Herry, Benjamin Franklin. Hester, Blum Elsworth. Hester, Stephen Garvin. Hiatt, Armstead Miller, Jr. Hickman, James Butler. Hicks, Fred Earl. Hicks, Fred Earl. Higginbotham, Mack Whiteside. Higginbotham, Wilbur. Higgins, Oscar Lee.	22222222222222222222222222222222222222	AA AA TE EE ChE Ag ChE Ag Ag CE Ag Ag CE CE CE CE CE CE CE CE CE CE CE CE CE	Navasota Denison Shelbyville Bryan Caldwell Floresville Kurten Galveston New Braunfels Crockett Thomas Vernon College Station Denver, Colorado Conroe Alvin Dallas Cooper
	Henry, Charles Egbert Henry, Charles Egbert Henry, Marion Bryan. Hensarling, Thomas Andrew. Henslee, Selden Wood. Herrington, Harold Reeves. Herrling, Frederick Charles. Herrmann, Frederick Davenport. Herry, Benjamin Franklin. Hester, Blum Elsworth. Hester, Stephen Garvin. Hiatt, Armstead Miller, Jr. Hickman, James Butler. Hicks, Fred Earl. Hicks, Fred Earl. Higginbotham, Mack Whiteside. Higginbotham, Wilbur. Higgins, Oscar Lee.	22222222222222222222222222222222222222	AA AA TE EE ChE Ag ChE Ag Ag CE Ag Ag CE CE CE CE CE CE CE CE CE CE CE CE CE	Navasota Denison Shelbyville Bryan Caldwell Floresville Kurten Galveston New Braunfels Crockett Thomas Vernon College Station Denver, Colorado Conroe Alvin Dallas Cooper
	Henry, Charles Egbert Henry, Charles Egbert Henry, Marion Bryan. Hensarling, Thomas Andrew. Henslee, Selden Wood. Herrington, Harold Reeves. Herrling, Frederick Charles. Herrmann, Frederick Davenport. Herry, Benjamin Franklin. Hester, Blum Elsworth. Hester, Stephen Garvin. Hiatt, Armstead Miller, Jr. Hickman, James Butler. Hicks, Fred Earl. Hicks, Fred Earl. Higginbotham, Mack Whiteside. Higginbotham, Wilbur. Higgins, Oscar Lee.	22222222222222222222222222222222222222	AA AA TE EE ChE Ag ChE Ag Ag CE Ag Ag CE CE CE CE CE CE CE CE CE CE CE CE CE	Navasota Denison Shelbyville Bryan Caldwell Floresville Kurten Galveston New Braunfels Crockett Thomas Vernon College Station Denver, Colorado Conroe Alvin Dallas Cooper
	Henry, Charles Egbert Henry, Charles Egbert Henry, Marion Bryan. Hensarling, Thomas Andrew. Henslee, Selden Wood. Herrington, Harold Reeves. Herrling, Frederick Charles. Herrmann, Frederick Davenport. Herry, Benjamin Franklin. Hester, Blum Elsworth. Hester, Stephen Garvin. Hiatt, Armstead Miller, Jr. Hickman, James Butler. Hicks, Fred Earl. Hicks, Fred Earl. Higginbotham, Mack Whiteside. Higginbotham, Wilbur. Higgins, Oscar Lee.	22222222222222222222222222222222222222	AA AA TE EE ChE Ag ChE Ag Ag CE Ag Ag CE CE CE CE CE CE CE CE CE CE CE CE CE	Navasota Denison Shelbyville Bryan Caldwell Floresville Kurten Galveston New Braunfels Crockett Thomas Vernon College Station Denver, Colorado Conroe Alvin Dallas Cooper
	Henry, Charles Egbert Henry, Charles Egbert Henry, Marion Bryan. Hensarling, Thomas Andrew. Henslee, Selden Wood. Herrington, Harold Reeves. Herrling, Frederick Charles. Herrmann, Frederick Davenport. Herry, Benjamin Franklin. Hester, Blum Elsworth. Hester, Stephen Garvin. Hiatt, Armstead Miller, Jr. Hickman, James Butler. Hicks, Fred Earl. Hicks, Fred Earl. Higginbotham, Mack Whiteside. Higginbotham, Wilbur. Higgins, Oscar Lee.	22222222222222222222222222222222222222	AA AA TE EE ChE Ag ChE Ag Ag CE Ag Ag CE CE CE CE CE CE CE CE CE CE CE CE CE	Navasota Denison Shelbyville Bryan Caldwell Floresville Kurten Galveston New Braunfels Crockett Thomas Vernon College Station Denver, Colorado Conroe Alvin Dallas Cooper
	Henry, Charles Egbert	22222222222222222222222222222222222222	AA AA TE EE ChE Ag ChE Ag Ag CE Ag Ag CE CE CE CE CE CE CE CE CE CE CE CE CE	Navasota Denison Shelbyville Bryan Caldwell Floresville Kurten Galveston New Braunfels Crockett Thomas Vernon College Station Denver, Colorado Conroe Alvin Dallas Cooper

.

	Re te Bier
Hobbs, Edward W Hockaday, Harold Kerr Hodge, John Frederick Hodges, Lester B Hohn, Walter Louis Holder, John Alma Holder, Williem Horew	. Sp. Ag Kice
Hockaday, Harold Kerr	. 25 Ar Cleburne
Hodge, John Frederick	. 25 ME Herelord
Hodges, Lester B.	. 22 VM Abilene
Hohn, Walter Louis	.'25 Ag Nordheim
Holder, John Alma	.'25 ChE Ardmore, Okla.
Holder, John Alma. Holder, William Henry. Holekamp, Otto C. Holland, William Duane. Holle, Henry A., Jr. Hollowell, Glen Alonzo. Holmes, Charles Troy. Holmgreen, Elmer Neilson. Hooks, Joseph Key. Hooper, Robert Ellbert. Hooten. Earl Arthur.	. Sp. AgWaller
Holekamp, Otto C.	.'24 EEComfort
Holland, William Duane	.'24 AASanta Anna
Holle. Henry A., Jr.	'25 Pre-MedBrenham
Hollowell, Glen Alonzo	'23 EE Albany
Holmes, Charles Troy	Sn CE Ashdown, Ark.
Holmgreen Elmer Neilson	'22 Ag San Jacinto
Hooks Joseph Key	Sp Ag Colorado City
Hooner Behert Filhert	25 Ag Eng Plainwiow
Hooten Ferl Arthur	C 9 Sulphur Springe
Hooks, Joseph Key. Hooper, Robert Ellbert. Hoopen, Earl Arthur. Hopkins, Bernard Huey. Hopkins, Bernard Huey. Hopkins, Marks Warfield. Hoppe, Adolph Bill. Hord, J. T. Horn, William Christian. Horne, Oral Lee. Horton, Paul Ende. Hotchkiss, Oscar Theodora, Jr. Houston, Frank Norman. Howard, Marshall Ray. Howard, Marshall Ray. Howard, Marshall Ray. Howard, Marshall Ray. Howard, Marshall Ray. Howard, Marshall Ray. Howed, Jack Joseph, Jr. Howell, Eugene Jody. Howell, Leander D. Howell, Rutherford Hayes. Howel, Rutherford Hayes. Howse, Albert Howell. Hubby, Turner Erath, Jr. Hudgins, Jack W.	200 A. T. T. Sulphur Springs
Hope, W. Byron	. 23 Ag Leonard
Hopkins, Bernard Huey	. 25 Ag Thrall
Hopkins, Marks Warfield	.'25 ChE Dallas
Hoppe, Adolph Bill	.'22 ME Marble Falls
Hord, J. T	. N 1 McGregor
Horn, William Christian	.'25 Ag Montgomery
Horne, Oral Lee.	. Sp. Ag Maverick
Horton, Paul Ende	.'25 EE Greenville
Hotchkiss, Oscar Theodora, Jr.	'24 ChE Bay City
Houston, Frank Norman	'22 CE Lake Charles, La.
Howard Marshall Bay	'25 ChE Ardmore Okla.
Howard Robert Albert	'25 ChF Ardmore Okla
Howdochall Allon Dala	'25 FF Sharman
How Josh Loroph Tr	205 EE
Howe, Jack Joseph, Jr	20 CLE
Howell, Eugene Joay	. 22 OnE Wa o
Howell, John Burl.	. 25 AA Coleman
Howell, Leander D.	. 22 Ag Bexar, Alabama
Howell, Rutherford Hayes	.'22 AgBexar, Alabama
Howze, Albert Howell	.'23 EEHouston
Hubby, Turner Erath, Jr	.'25 AAWaco
Hudgins, Jack W. Hudson, Charles Edward. Hudson, Delma. Huff, Arthur Weber. Huff, Calvin Ralph.	. C 2 Forney
Hudson, Charles Edward	.'24 AgPine Bluff, Ark.
Hudson, Delma	.'23 AA Mart
Huff. Arthur Weber	'25 EE Lyford
Huff, Calvin Balph	'24 EE Lyford
Hughes Justin Mendal	Sn Ag Normal III.
Hughes, Justin Mendal. Hughes, William Hobson. Hughs, Thomas Buford. Hugon, Lee Russell. Hultgren, Hilmer Carl. Hunnicutt, J. R. Hunt, Asa Eugene. Hunt, Robert L	'23 Ag Lyford
Hughe Thomas Buford	Sp Ag Shinor
Hugon Loo Duggell	299 FF Coincerillo
Hultgron Uilmon Conl	204 EE
Hungren, Hilmer Carl	. 24 E.E Ingleside
Hunnicutt, J. R.	. 25 Pre-Med Marin
Hunt, Asa Eugene	. 22 EE Dallas
Hunt, Asa Eugene Hunt, Robert L. Hunt, Zim. Hunter, Homer A. Hurley, Charles Webster. Hurley, Timothy Donald. Hutchison, Theodore Julian. Hutchison, Wallace Russell Hyland, George Gilbert.	. Sp. Ag Omaha
Hunt, Zim	.'25 TEDallas
Hunter, Homer A	.'25 MEFort Worth
Hurley, Charles Webster	.'22 ChEHouston
Hurley, Timothy Donald	.'24 AgChicago, Ill.
Hutchison, Theodore Julian	.'25 AAWaco
Hutchison, Wallace Russell	.'24 Ag
Hyland, George Gilbert	'24 ChE College Station
Ingram, Lovd Moses	N 1 Decatur
Ingram William H	'23 EE Torroll
Irvin Francis Vernon	25 EE Bartlatt
Ingram, Loyd Moses Ingram, William H Irvin, Francis Vernon Irwin, Arthur James	25 CE Colvecton

NON AGRICULIUMAL AND	MECHANICAL COLLEGE	OF IEAAS.
Irwin, Kenneth William	295 M.F.	Toomio
Irwin, Kenneth William		, reague
Jackson Alvin Handley	N 1	Cail
Jackson, Alvin Handley Jackson, Isaac Newton, Jr Jackson, Sam Jacobson, John Edward Jaggi, Frederick Putman James, Hubert Jarvis, Billy Jarvis, Raymond Jarvis, Raymond Jarvis, Raymond Jarvis, B. L Jarvis, Bayer Jarvis, Bayer Johnson, Charle Culbertson Johnson, Allen Johnson, Allen Johnson, Charles Basil Johnson, Harold Jefferson Johnson, Howard Richard Johnson, Thomas Jesse Johnson, William Dunlap Johnson, William Henry	25 A A	Ahilene
Jackson Sam	C 1	College Station
Jacobson John Edward	'25 CE	Texas City
Jaggi Frederick Putman	'24 Ag	San Antonio
James, Hubert	25 ME	Greenville
Jarvis Billy	'25 Ag	Lieb
Jarvis, Baymond	'24 Ag	Lieb
Jenkins B L	'22 Åø	Clarendon
Jinks, Leon Carlton	'22 Åg	West Columbia
Jobson, Charlie Culbertson	'22 Ag	Mesquite
Johnson, Allen	25 EE	Palestine
Johnson, Albert Sidney		Dal'as
Johnson, Charles Basil		. Uvalde
Johnson, Harold Jefferson		Chickasha, Okla.
Johnson, Howard Richard		. Paris
Johnson, Thomas Jesse	'24 Ar	.Lufkin
Johnson, William Dunlap	'24 CE	. Houston
Johnson, William Henry	Sp. Ag	. Bryan
Johnston Luigro		KINGSVIIIP
Johnston, Ted. Jolliff, Lindsey Gaffard Jones, Beecher Calvin	Sp. Ag	.San Angelo
Jolliff, Lindsey Gaffard	'23 MĔ	. Dallas
Jones, Beecher Calvin	Sp. ChE	. Waco
Jones, Barton Douglas	Sp. Ag	. Comanche
Jones, Charles Hal		. Temple
Jones, Elmo McMullen		. Coleman
Jones, John Dewey	N 1	. Bryan
Jones, John Harrell	'22 Ag	. Windthorst
Jones, Lyman Burrell		.San Antonio
Jones, Newton W		. Windthorst
Jones, Thomas Lewis		. Forney
Jones, Vernon Forest		. Glen Cove
Jordan, Willie Rogers		Floresville
Josserand, Pierre L		Galveston
Joyner, Arthur Lee		Gainesville
Judd, Frank Wallace	······································	Fort worth
Jones, Beecher Calvin. Jones, Barton Douglas. Jones, Charles Hal. Jones, Elmo McMullen. Jones, John Dewey. Jones, John Harrell. Jones, Lyman Burrell. Jones, Newton W. Jones, Thomas Lewis. Jones, Vernon Forest. Jordan, Willie Rogers. Josserand, Pierre L. Joyner, Arthur Lee. Judd, Frank Wallace June, Malcolm McClenthen.		College Station
Vaialan Willie Dessia	105 A A	Mant
Kaigler, Willie Davis. Kalb, George Montgomery Kasper, Charles Kaufman, Joe M		. Mart
Kalb, George Montgomery	······································	San Antonio
Kasper, Charles		Dollog
Kauman, Joe M		Cinco
Kean, Edward Everett	····· Sp. MLE	Olsco
Keatniey, John A		. Oney Korong
Keen, Lowen Stockton	······································	Derring
Keeton, 1 haddeus Elton		East Worth
Keith Danuin Howell		Fort Worth
Kellow Alvin Flwood		L oglehort
Kondrick Loighton Lorgin	·····································	Moody
Konnody Mot	····· 24 Ag	Trilor
Konnedy Victor Bunyan	·····································	Crockett
Kerr Eligene James	'29 ME	Havana Cuha
Kerr George Spears	····· 22 ME	Thurber
Kerr Horace Scott	20 EE	Amarillo
Kerr. James Fielder	223 CE	Thurber
Ketchum Everard Torroll	25 A A	Navasota
Ketterson, John Boyd	'24 ChE	Houston
Kaufman, Joe M. Kean, Edward Everett. Keathley, John A. Keen, Lowell Stockton. Keeton, Thaddeus Elton. Keith, Arthur Clinton. Keith, Darwin Howell. Kelley, Alvin Elwood. Kendrick, Leighton Lorain. Kennedy, Met. Kennedy, Victor Runyan. Kerr, Eugene James. Kerr, Eugene James. Kerr, Horace Scott. Kerr, James Fielder. Ketchum, Everard Terrell. Ketterson, John Boyd. Key, Davis Leonidas.		Floresville
,		

Kimball, Otis Harold Kimbrough, William Morton Kindle, John Madison King, Charlie Joe King, Letcher Davis. King, Robert King, William Casey. King, William Johnson	
Kimball, Otis Harold	25 Ag Alpine
Kimbrough, William Morton	'23 EE Weatherford
Kindle John Madison	'25 CE McKinney
Wing Charlie Ice	C 1 Reterville
King, Charne Joe	O I Datesville
King, Letcher Davis	25 Ag Abliene
King, Robert	'22 EE Gatesville
King, William Casey	'25 TE Denison
King William Johnson	C 1 Gatesville
Winlemstriels Temper Altria Tr	295 AA Boogon
KITKPAUTICK, James Alvis, JT	25 AA Reagan
Kirkpatrick, Thagard Keith	25 EE Reagan
Kirkpatrick, William Davis	'23 AgLewisville
Knapp, John Andrew	'22 TE Calvert
Knann Walter Lee	'22 Ag Calvert
Whishesheshes Hormon Willia In	295 Am Monlin
Knickerbocker, Herman willis, Jr	20 Ag Marini
Knight, Cato M	Sp. Ag Miller Grove
Knotts, William Henry	'25 CE Kemp
Knox, Edward Warren	'22 EE San Antonio
Kochlor Egan	'22 ME La Grange
Koenie Edward Assesset	205 Oh El Davron
Koenig, Edgar August	25 UnEBryan
Koerth, George Emil	'25 ChE Yoakum
Kooistra, Jan.	C 1 College Station
Kothman Clarence Pote	C1 Mason
Kotachua Dar Louis	'95 ME Moulton
Kotzebue, Roy Louis	25 ME
Kraft, Frederick M	25 EE Dalnart
Krause, Milton Waldo	'25 EE La Grange
Kreusler, William	Sp Ag Cibolo
Krueger Albert Theodor	294 FF San Antonio
Kiueger, Albert Theodor	24 E.E
Krueger, Gustav Robert	25 ArSan Antonio
Kubala, J. Frank	25 EE Granger
Kuehn, Edwin Erick	'24 EE Tavlor
Kuemnel Louis Gilbert	25 FF Pflugerville
Kumhol Corl Mitchell	20 ME San Antonio
Kunkel, Carl Mitchen	24 ME
Kurtz, Lawrence A	22 EE College Station
Kuykendall, William Isaac	'25 AgBuda
	5
King, Robert. King, William Casey. King, William Johnson. Kirkpatrick, James Alvis, Jr. Kirkpatrick, Thagard Keith. Kirkpatrick, William Davis. Knapp, John Andrew. Knapp, Walter Lee. Knickerbocker, Herman Willis, Jr. Knight, Cato M. Knotts, William Henry. Knox, Edward Warren. Koehler, Egan. Koehler, Egan. Koenig, Edgar August. Koerth, George Emil. Kooistra, Jan. Kothman, Clarence Pete. Kotzebue, Roy Louis. Kraft, Frederick M. Krause, Milton Waldo. Kreusler, William Krueger, Gustav Robert. Kubala, J. Frank. Kuehn, Edwin Erick. Kuehn, Edwin Erick. Kuekel, Carl Mitchell. Kurtz, Lawrence A. Kuykendall, William Isaac. Lamb. David Ewing.	C 2 Detroit
Lambort Word	295 ME Tonguo
Lampert, ward	20 ME Teague
Lamkin, James Boyd	23 ME Huntsville
Lancaster, Alexander Pope	22 EE Marshall
Lancaster, Jesse Cornelius	'24 Ar Marshall
Landram Addoson Boring	'99 Ag Houston
Lanurani, Audeson Dering	22 Ag Deller
Lang, John Joseph, Jr.	ZZ EE Dallas
Langley, Byron Caldwell	25 Ag. Ed Bullard
Langlotz, Wilburn Edward	25 ME Fayetteville
Lankford Harold Shinn	'24 CE Golden
Larkin Jamos Charles	295 CF Bromond
Larkin, James Charles	25 CE Diemonu
Laseter, Fred	25 Ag. Eng Hope, Arkansas
Lasseter, William Ernest	'22 Ag Henderson
Latham, William Enoch	'24 CE Sulphur Springs
Lawson Glenn Edward	'22 Ag San Antonio
Lawson, William Janning	204 Ch Ti Amatim
Lawson, whitam Jennings	24 UIE Austin
Lazenby, Otto Robert	'24 Ag Waco
Ledbetter, John Jackson	'25 CEBlytheville, Ark.
Lee. Fitzhugh	25 Ag. Eckert
Lee James Alexander	25 EE Houston
Los Comuel Duright	20 DE Elizabeth To
Lee, Samuel Dwight	24 DE Enzabeln, La.
Leiper, Sam Edward	23 Ag Weatherford
LeLaurin, Victor Gheral	25 MESan Antonio
LeMay, Victor	'25 Ar Fort Worth
Loster Herry Venderhurgh	25 ChE Dollar
Tostempson Edward Gamine T	20 OILE
Lestourgeon, Laward Garrison, Jr.	25 UnE San Antonio
Kuykendall, William Isaac. Lamb, David Ewing. Lambert, Ward. Lancaster, Jesse Boyd. Lancaster, Jesse Cornelius. Landram, Addeson Bering. Lang, John Joseph, Jr. Langley, Byron Caldwell. Langlotz, Wilburn Edward. Lankin, James Charles. Lascter, Fred. Lasseter, Fred. Lasseter, William Ernest. Latham, William Enoch. Lawson, Glenn Edward. Lawson, William Jennings. Lazenby, Otto Robert. Ledbetter, John Jackson. Lee, Fitzhugh. Lee, Samuel Dwight. Leiper, Sam Edward. Leiner, Sam Edward. LeMay, Victor. Lester, Harry Vanderburgh. LeStourgeon, Edward Garrison, Jr.	

Leuschner, Robert Lee. Leuty, Ben David Leverett, Leyburn A Lewis, George McKoy. Lewis, Henry LaFayette, Jr.	
Louty Bon David	294 CF Krum
Leuty, Den Daviu	
Leverett, Leyburn A	22 ChE Overton
Lewis George McKoy	'24 AA Fort Worth
Lowing Honny La Powetto In	295 Dro Low Newcosta
Lewis, Henry Larayette, Jr.	25 Fre-Law Navasota
Lewis, Marlin Douglas	C 1
Liles Homer McFarlin	'93 AA Kaufman
Lindeman, Rudolph August	
Lindsev, Glen Aven	'23 Ag Davilla
Linka Dohout In	C 0 Descrille
Linke, Robert, Jr.	UZ
Lipscomb. Patrick Cleburne. Jr.	
Lingitz Bortram	25 AA Wago
	20 AA Wacu
Littlejohn, Lacy Welborn	23 Ag Garrett
Livingston Elmo Clarence	'23 ChE Coleman
Tables Miles	
Lobbes, Mike	
Lokras, Vinahak Naravan	'24 ChE
Long Doniamin Modlow	294 FF Morghall
Long, Denjamin Mosley	24 E.E Warshan
Long, Joseph Thurman	23 AA Houston
Long Pierre Douglas	'91 Ag Eng San Bonito
Long, William Buford	25 CE Fort Worth
Longino Marvin George	'25 Ag Ingleside
Longino, han on Form	204 TEL Westerror
Longley, James Farr	24 E.E westover
Lord. George Joseph	
Lord Curr Wallton	294 ChF Hohron
Loru, Guy Walker	
Lott, Otto Christian	22 ChE Galveston
Love Bon S	'23 CE Franklin
Love, watter meigs	ZZ Ag Milliord
Lowe, Allen Prvor	N 1 San Antonio
Lucog William Priortlan	U 1 Polytochnic
Lucas, william Friesdey	
Luckett. Chester Alfred	'22 TE Waco
T I D II E III	
LICKOV LICTTOLL EMMOTT	N 2 Rockdale
Luckey, Dorrell Emmett	N 2
Luckey, Dorrell Emmett Ludolf, Americo de Miranda	N 2
Luckey, Dorrell Emmett Ludolf, Americo de Miranda	N 2Rockdale Sp. AgRio de Janeiro, Brazil. S. A.
Luckey, Dorrell Emmett Ludolf, Americo de Miranda	N 2Rockdale Sp. AgRio de Janeiro, Brazil, S. A.
Luckey, Dorrell Emmett Ludolf, Americo de Miranda Lunsford, Robert Eugene	.'24 AA.       Fort Worth         .'25 Pre-Law       Navasota         . C 1.       Thorndale         .'23 AA.       Kaufman         .'24 Ar.       San Angelo         .'23 Ag.       Davilla         .'24 Ar.       San Angelo         .'23 Ag.       Davilla         .'25 ME       Trinity         .'25 AA.       Waco         .'23 Ag.       Garrett         .'23 ChE.       Coleman         .'25 TE.       Rogers, Ark.         .'24 ChE.       Saugor, C. P., India         .'24 EE.       Marshall         .'23 AA.       Houston         .'24 EE.       Marshall         .'23 AA.       Houston         .'24 EE.       Marshall         .'23 AA.       Houston         .'24 Ag. Eng.       San Benito         .'25 Ag.       Ingleside         .'24 EE.       Westover         .'23 Ag.       Cheapside         .'24 EE.       Galveston         .'22 ChE.       Galveston         .'23 CE.       Franklin         .'22 Ag.       Milford         N 1.       San Antonio         H 1.       Polytechnic
Luckey, Dorrell Emmett Ludolf, Americo de Miranda Lunsford, Robert Eugene Lynch, William Wright.	N 2
Luckey, Dorrell Emmett Ludolf, Americo de Miranda Lunsford, Robert Eugene Lynch, William Wright	N 2Rockdale Sp. AgRio de Janeiro, Brazil, S. A. 25 EESeymour 22 EEThurber 25 CEThurber
Lynch, William Wright Lyons, John Fabius Burton	
Lynch, William Wright Lyons, John Fabius Burton	
Lynch, William Wright Lyons, John Fabius Burton	
Lynch, William Wright Lyons, John Fabius Burton	
Lynch, William Wright Lyons, John Fabius Burton	
Lynch, William Wright Lyons, John Fabius Burton	
Lynch, William Wright Lyons, John Fabius Burton	
Lynch, William Wright Lyons, John Fabius Burton	
Lynch, William Wright Lyons, John Fabius Burton	
Lynch, William Wright Lyons, John Fabius Burton	
Lynch, William Wright Lyons, John Fabius Burton	
Lynch, William Wright Lyons, John Fabius Burton	
Lynch, William Wright Lyons, John Fabius Burton	
Lynch, William Wright Lyons, John Fabius Burton	
Lynch, William Wright Lyons, John Fabius Burton	
Lynch, William Wright Lyons, John Fabius Burton	
Lynch, William Wright Lyons, John Fabius Burton	
Lynch, William Wright Lyons, John Fabius Burton	
Lynch, William Wright Lyons, John Fabius Burton	
Lynch, William Wright Lyons, John Fabius Burton	
Lynch, William Wright Lyons, John Fabius Burton	
Lynch, William Wright Lyons, John Fabius Burton	
Lynch, William Wright Lyons, John Fabius Burton	
Lynch, William Wright Lyons, John Fabius Burton	
Lynch, William Wright Lyons, John Fabius Burton	
Lynch, William Wright Lyons, John Fabius Burton	
Lynch, William Wright Lyons, John Fabius Burton	
Lynch, William Wright Lyons, John Fabius Burton	
Lynch, William Wright Lyons, John Fabius Burton	
Lynch, William Wright Lyons, John Fabius Burton	
Lynch, William Wright Lyons, John Fabius Burton	
Lynch, William Wright Lyons, John Fabius Burton	
Lynch, William Wright Lyons, John Fabius Burton	
Lynch, William Wright Lyons, John Fabius Burton	
Lynch, William Wright Lyons, John Fabius Burton	
Luckey, Dorrell Emmett. Ludolf, Americo de Miranda. Lunsford, Robert Eugene. Lynch, William Wright. Lyons, John Fabius Burton. Lyons, Richard Alexander. McAllister, Thomas Ullysses. McCarter, Thomas Ullysses. McCarty, T. J. McCauley, George Walton. McChesney, Edward Rowel. McChesney, William Hull. McClelland, William Henry. McClellen, Elias Baxter, Jr. McConnell, Mack. McCready, Robert DeClarke. McCulloch, Henry Eustace. McCullough, John Pinkney. McCullough, Wilmer Raymond. McDonald, Herschel Case. McDonald, Herman Ricks. McDonald, Herman Ricks. McDonald, Roland. McDonald, Roland. McElroy, Hazeal Milton. McFadden, Edgar Clayton. McGaffey, John W.	

•

McGaughey, John Henderson. McGee, Frank S. McGee, Roger Valentine. McInnish, James Grafton. McIver, Alexander William. McKinmey, Allen Aubrey. McKinney, Robert Davis. McKinney, William H. McKnight, T. William. McKoy, Emmett Clifford. McLaury, William Rowland. McMurry, Stonewall Reynolds. McNair, Cullen Leslie. McNeel, Albert Maverick. McNeil, Hugh Robinson. McNelly, Charles Bowman. McReynolds, Joe Mow. McRimmon, Myrle D. McSwain, Ross Francies.	'25 ChE.       Whitewright         '24 AA.       Marshall         '23 Ag. Ed.       Bryan         '25 EE.       Plainview         '25 Ag.       San Antonio         '25 Ag.       Comanche         Sp. Ag.       Newcastle         Sp. Ag. Ed.       Whitesboro         '23 CE.       Hallettsville         '24 CE.       Rockwall         '25 EE.       Snyder         '22 Ar.       Calvert         '25 ChE.       Spearman         '24 Ag.       Waxahachie         '25 CE.       San Antonio         Sp. Ag. Ed.       Floresville         '23 CE.       Uvalde         '24 Ag.       Uvalde         '22 ME.       Mineola         '22 CE.       Troup         '24 Ag.       Wellborn
MacDaniel, James Hunter MacDonnell, Burleson. MacFarland, George Orval, Jr. Mackensen, Otto. Magnuson, Nels Conrad. Magruder, Alexander Dalton Mahan, Alfred. Majors, Jasper Redmond. Malcolm, Harold Otis.	'25 Ag.       Austin         '25 Ag.       Austin         Sp. Ar.       College Station         '25 Ag.       San Antonio         '25 CE.       Lyford         '24 EE.       San Antonio         Sp. Ag. Ed.       Bryan         '25 CE.       Burkburnett         '24 EE.       Burkburnett         '25 CE.       Burkburnett
Mallow, Ramon. Malone, Morris Levelle. Maloney, Joseph Henry. Mangum, John Festus. Marning, Paul. March, John Preston. Marcus, Lawrence Bany. Marsh, Gay Jacques. Marshall, Dillard Oneal. Martin, Frank O. Martin, George Edward. Martin, Jack Carmichael	Oklahoma '23 Ag McKinney '23 CE Coleman '25 AA Bryan Sp. Ag. Ed Hempstead '25 Ag Leonard '22 ME El Paso '25 ME Wichita Falls '24 EE Livingston Sp. Ar Weatherford Sp. AA College Station Sp. Ag. Eng College Station C 2 Marshall
Martin, John Monroe. Martin, Joseph Terrell. Martin, James Woodward. Martin, Vernon. Martinez, Jose Gomez. Marucheau, Albert Sereno. Mason, Clinton Carmack. Massey, Jesse Clifton. Mast, Claude Albert. Mast, Claude Albert. Mast, Dick Cason. Mast, Hollis Tucker. Masuda, Barook Joseph. Matchett, Robert Kyle. Matchett, Robert Kyle. Matthes, Cecil Lawton. Matthews, Robert Harroll. Matthews, Vernor T.	'24 AASan Antonio         '23 AgParis         '25 CEWeatherford         '25 EEDallas         '24 ArNacogdoches         '25 AANacogdoches         '25 AGBay City         '25 AgBay City         '25 EELaredo         '25 EEUvalde         Sp. AgEagle Lake

	,
Maufrais, Henry Louis	.'24 TE Austin
Maultsby, Rupert A.	Sp. Ag. San Saha
Maultsby, Rupert A Maxson, Thomas Emerson	'22 CE Fort Worth
Maver Joe B	C 2 San Angelo
Mayfield Jack	'25 Ag Cornus Christi
Mayfield John Chostor	'23 A A Cloveland
Mayfeld Loo	25 CE Unabas Springer
Maynerd, William Simpson	25 ME Wess
Maynard, william Simpson	. 25 ME waco
Mayo, John Wayland	. 22 ME Dallas
Medbery, Clinton Amos	. 24 ChE Riverside, R. I.
Meek, John Hunter	. 25 EE Jacksonville, Fla.
Megarity, Cebron H	.'23 TE Waco
Meitzen, Joseph Bernard	.'25 AgSan Antonio
Meitzen, Robert Jewell	.'22 Ag
Menke. Theodore Meyer	.'25 Ag. Eng Hempstead
Menke, Walter Morris	'22 Ag. Hempstead
Merchant, Dorriss Henry	'23 ChE Giddings
Meredith Joseph Huntley	'23 ChE Waxahachie
Merrick John Gross	'25 Ag Marcadas
Motzeen Bandelph Fredrick	25 ME Hondo
Meuzger, Mandolph Freurick	25 Am Eletenie
Meyer, Harry Morton	204 Ag
Meyer, L. J.	. 24 Ag Ellinger
Meyers, Fred Pierce	. Sp. CE Cameron
Miers, Wesley Scott	. 23 EE Hearne
Miles, John Henry	.'24 EE Marlin
Miles, William John	.'22 CE Mineral Wells
Milhollin, Robert Mabry	.'23 AgLipan
Miller, Herman Newton	.'25 MEPrinceton
Miller, Isadore	'25 EE Dallas
Miller, Joe	'25 EE Corsicana
Miller Jesse Clinton	'22 Ag Elgin
Miller John Keesey	'25 ME Fort Davis
Miller Looo	'24 Ag Boten
Miller, Thomas Louis	'24 Ag Colomon
Miller William Forle	25 An Urroldo
Milliam Debast Lei	205 CE Makingar
Milligan, Robert Joel	200 Am Chalanney
Mims, Morrill Powell	. 22 Ag Cleburne
Mims, Staley Wood	. 25 ChE Palestine
Mingus, Odis Simpson	. 23 ChE Hico
Mitcham, Ralph Alexander	.'25 EE Murchison
Mitchell, Alfred Fromme	. 24 AA Lolita
Mitchell, Clarence D	. N 1 Madisonville
Mitchell, Wilbur Clifford.	.'22 ChE College Station
Mogford, Alfred Christian	.'23 AgStreeter
Moguel, Fausto Roberto.	.'21 Ag Oaxaca City. Mex.
Monagin J A	'24 Ag Uvalde
Monk James William	'23 Ag Ed Center
Montgomery Vol Hardwicke	'25 CE Eufuala Okla
Montgomery, vor Haruwicke	'23 TE Hubbard
Moore, Aubley Lee	'94 CE Cinco
Moore, Carl William.	22 ChE Fort Worth
Moore, Emmett Herman	25 DELFort worth
Moore, Fred William	. 25 EE Chiton
Moore, Johnnie Criswell.	. 22 ChE Matador
Moore, Perry Hollis	. N 2 Kingsville
Moore, William Angus	.'25 ChE Dallas
Mooring, Ward Taliaferro	.'24 AABryan
Morey, Arthur Paine	.'25 CESedalia, Mo.
Morgan, Chester Lee	.'25 CE Leesville, La.
Morgan, Edward Doughty	.'25 EEUvalde
Maufrais, Henry Louis. Maultsby, Rupert A. Maxson, Thomas Emerson Mayre, Joe B Mayfield, Jack Mayfield, Jack Mayfield, John Chester Maynard, William Simpson Mayo, John Wayland Medbery, Clinton Amos Meek, John Hunter Megarity, Cebron H. Meitzen, Joseph Bernard. Meitzen, Robert Jewell Menke, Theodore Meyer Merchant, Dorriss Henry Merchant, Dorriss Henry Merchant, Joseph Huntley. Merchant, Joseph Huntley. Mercrick, John Gross. Metzger, Randolph Fredrick. Meyer, L. J. Meyers, Fred Pierce. Miles, William John. Milhollin, Robert Mabry. Miller, Herman Newton Miller, Jesse Clinton Miller, Jose Clinton Miller, John Keesey. Miller, John Keesey. Miller, John Keesey. Miller, Herman Louie. Miller, William Earle. Milligan, Robert Joel. Mingus, Odis Simpson Mitchall, Alfred Fromme. Mitchell, Alfred Christian Mogford, Alfred Christian Moguel, Fausto Roberto. Mong, Janes William. Mont, James William. Moore, Carl William. Moore, Perry Hollis. Moore, Alfred Criswell Moore, Alfred Criswell Moore, Carl William. Moore, Fred William. Moore, Perry Hollis. Moore, Alfred Criswell Moore, Alfred Criswell Moore, Carl William. Moore, Perry Hollis. Moore, Moran Angus. Moore, Moran Angus. Moore, Moran Angus. Moore, Milam Angus. Moore, Miliam Angus. Moore, Miliam Angus. Moore, Alfred Theome. Morgan, Edward Doughty. Morgan, Edward Doughty. Morgan, Ellis Hamilton. Morgan, Elmatt Kent.	'23 CE Houston
Morgan Emmett Kent	'25 EEKirbyville
MINEBUL, MININEVE RELIVING.	

# Students.

Morgan John Edward '25 AA LaGrange	
Morgan Bobert Lee Jr '24 ChE Leesville, La.	
Morgan, John Edward.'25 AA.LaGrangeMorgan, Robert Lee, Jr.'24 ChE.Leesville, La.Morgan, William Ray.Sp. Ag.EmoryMorris, Asbury Bratton.'25 Ag.Cedar HillMorris, George Merle.'24 Ag.WinnsboroMorris, Harry Forrest.'24 Ag.ForrestonMorton, Fred.'23 EE.Reids, La.Morton, Fred.'23 EE.MarfaMosteller, Walter A'23 EE.Pilot PointMovaller, James Arthur.'25 AA.CorsicanaMueller, Irvin A.'25 AA.LorsicanaMueller, Jerome August.'25 AA.LivingstonMuller, Marcus Herman.'25 EE.BrackettvilleMullican, J. T. Ivor.'24 CE.CooperMullins, Benjamin Franklin KelsoSp. CE.College Station	
Morgan, william Ray Sp. Ag Entory	
Morris, Asbury Bratton	
Morris, George Merle	
Morris Harry Forrest '24 Ag Forreston	
Monis, Harry Foncesterrer 209 ED Doide Lo	
Morrow, william D	
Morton, Fred Maria	
Mosley, Wilburn Wilson	
Mosteller Walter A '23 EE Pilot Point	
Moreland Tamos Arthur 20 AA Corrigino	
Mowiam, James Arthur	
Mueller, Irvin A	
Mueller. Albert Burke	
Muller Jerome August '25 AA Livingston	
Muller, Mensuer Hammer 205 FF Drokoving Storing	
Muller, Marcus Herman	
Mullican, J. T. Ivor	
Mullins, Benjamin Franklin Kelso,, Sp. CE,, College Station	
Mulvey William Bernard '22 CE Houston	
Murroy, Chauda A	
Muncey, Glaude A	
Muncey, James Arthur	
Munn, Carl G	
Muntzer Fred W '24 EE San Antonio	
Munchigen Hugh Dedericht N1 Los Angeles Celif	
Murchison, Hugh Roderick N 1 Dos Angeles, Cam.	
Murchison, Lewis Nance	
Murphy, Herbert Adrian,	
Murphy Jack Knox '25 AA Fort Worth	
Mumber Montin	
Murphy, Martin	
Murrah, William Erwin Sp. AA Plano	
Mullican, J. T. Ivor.'24 CE.CooperMullins, Benjamin Franklin KelsoSp. CE.College StationMulvey, William Bernard.'22 CE.HoustonMuncey, Claude A.'25 Ag. Eng.Corpus ChristiMuncey, James Arthur.'24 Ag. Eng.Corpus ChristiMunn, Carl G.'25 AA.Sterling CityMuntzer, Fred W.'24 EE.San AntonioMurchison, Hugh Roderick.N 1Los Angeles, Calif.Murphy, Herbert Adrian.'24 EE.MexiaMurphy, Jack Knox.'25 EE.GrapelandMurphy, Martin.'25 Ag. Eng.DallasMurrah, William Erwin.Sp. AA.PlanoMyers, Joseph Allen, Jr.Sp. Ag.Bryan	
Myers, James Vernon '25 AA Booth	
Myora Dhilin	
Myres, William James	
Myers, Joseph Allen, Jr	
Myres, William James	
Myres, William James.       '25 ME       Sweetwater         Naschke, Bertram Brison       '22 ME       Galveston         Neal, George Truett.       '23 CE       Fort Worth         Neal, John Lindley.       '25 EE       Sweetwater         Neath, Edgar Roy       '25 EE       Cisco         Needham, Reginald Lee       '25 Pre-Med       Lorena         Neeley, Marion J       '22 TE       Cotulla         Neely, Ray Griffith       '25 AA       Barstow	
Myres, William James	
Myres, William James	
Myres, William James	5
Naschke, Bertram Brison'22 MEGalvestonNeal, George Truett'23 CEFort WorthNeal, John Lindley'25 EESweetwaterNeath, Edgar Roy'25 EECiscoNeedham, Reginald Lee'25 Pre-MedLorenaNeeley, Marion J'22 TECotullaNeely, Ray Griffith'25 AABarstowNeitsch, Fred Ernest'23 EEGiddingsNelson, Greer B'24 AgGreenvilleNelson, Herman ClementsSp. ArWaco	
Naschke, Bertram Brison'22 MEGalvestonNeal, George Truett.'23 CEFort WorthNeal, John Lindley'25 EESweetwaterNeath, Edgar Roy'25 EECiscoNeedham, Reginald Lee'25 Pre-MedLorenaNeeley, Marion J'22 TECotullaNeely, Ray Griffith'25 AABarstowNeitsch, Fred Ernest'23 EEGiddingsNelson, Greer B'24 AgGreenvilleNelson, Herman ClementsSp. ArWacoNeuweyer, Otto MarcoSp. AgSan Carlos-Sud,	
Naschke, Bertram Brison'22 MEGalvestonNeal, George Truett.'23 CEFort WorthNeal, John Lindley'25 EESweetwaterNeath, Edgar Roy'25 EECiscoNeedham, Reginald Lee'25 Pre-MedLorenaNeeley, Marion J'22 TECotullaNeely, Ray Griffith'25 AABarstowNeitsch, Fred Ernest'23 EEGiddingsNelson, Greer B'24 AgGreenvilleNelson, Herman ClementsSp. ArWacoNeuweyer, Otto MarcoSp. AgSan Carlos-Sud,	
Naschke, Bertram Brison'22 MEGalvestonNeal, George Truett'23 CEFort WorthNeal, John Lindley'25 EESweetwaterNeath, Edgar Roy'25 EECiscoNeedham, Reginald Lee'25 Pre-MedLorenaNeeley, Marion J'22 TECotullaNeely, Ray Griffith'25 AABarstowNeitsch, Fred Ernest'23 EEGiddingsNelson, Greer B'24 AgGreenvilleNelson, Herman ClementsSp. ArWacoNeumeyer, Otto MarcoSp. AgSanta Fe, Argertime SASanta Fe, Arger	<b>)-</b>
Naschke, Bertram Brison'22 MEGalvestonNeal, George Truett'23 CEFort WorthNeal, John Lindley'25 EESweetwaterNeath, Edgar Roy'25 EECiscoNeedham, Reginald Lee'25 Pre-MedLorenaNeeley, Marion J'22 TECotullaNeely, Ray Griffith'25 AABarstowNeitsch, Fred Ernest'23 EEGiddingsNelson, Greer B'24 AgGreenvilleNelson, Herman ClementsSp. ArWacoNeumeyer, Otto MarcoSp. AgSanta Fe, Argertime SASanta Fe, Arger	1-
Naschke, Bertram Brison'22 MEGalvestonNeal, George Truett'23 CEFort WorthNeal, John Lindley'25 EESweetwaterNeath, Edgar Roy'25 EECiscoNeedham, Reginald Lee'25 Pre-MedLorenaNeeley, Marion J'22 TECotullaNeely, Ray Griffith'25 AABarstowNeitsch, Fred Ernest'23 EEGiddingsNelson, Greer B'24 AgGreenvilleNelson, Herman ClementsSp. ArWacoNeumeyer, Otto MarcoSp. AgSanta Fe, Argertime SASanta Fe, Arger	) <b>-</b>
Naschke, Bertram Brison'22 MEGalvestonNeal, George Truett.'23 CEFort WorthNeal, John Lindley'25 EESweetwaterNeath, Edgar Roy'25 EECiscoNeedham, Reginald Lee'25 Pre-MedLorenaNeeley, Marion J'22 TECotullaNeely, Ray Griffith'25 AABarstowNeitsch, Fred Ernest'23 EEGiddingsNelson, Greer B'24 AgGreenvilleNelson, Herman ClementsSp. ArWacoNeuweyer, Otto MarcoSp. AgSanta Fe, Argertine, S. A.Sp. AgPeking, ChinaNewell, William HoustonSp. ArMiami, Fla,	1-
Naschke, Bertram Brison'22 MEGalvestonNeal, George Truett'23 CEFort WorthNeal, John Lindley'25 EESweetwaterNeath, Edgar Roy'25 EECiscoNeedham, Reginald Lee'25 Pre-MedLorenaNeeley, Marion J'22 TECotullaNeely, Ray Griffith'25 AABarstowNeitsch, Fred Ernest'23 EEGiddingsNelson, Greer B'24 AgGreenvilleNeumeyer, Otto MarcoSp. ArWacoNeumeyer, Otto MarcoSp. AgSanta Fe, ArgerNew, TsunyoongSp. AgPeking, ChinaNewell, William HoustonSp. ArMiami, Fla	) <b>-</b>
Naschke, Bertram Brison'22 MEGalvestonNeal, George Truett'23 CEFort WorthNeal, John Lindley'25 EESweetwaterNeath, Edgar Roy'25 EECiscoNeedham, Reginald Lee'25 Pre-MedLorenaNeeley, Marion J'22 TECotullaNeely, Ray Griffith'25 AABarstowNeitsch, Fred Ernest'23 EEGiddingsNelson, Greer B'24 AgGreenvilleNeumeyer, Otto MarcoSp. ArWacoNeumeyer, Otto MarcoSp. AgSanta Fe, ArgerNew, TsunyoongSp. AgPeking, ChinaNewell, William HoustonSp. ArMiami, Fla	1-
Naschke, Bertram Brison'22 MEGalvestonNeal, George Truett'23 CEFort WorthNeal, John Lindley'25 EESweetwaterNeath, Edgar Roy'25 EECiscoNeedham, Reginald Lee'25 Pre-MedLorenaNeeley, Marion J'22 TECotullaNeely, Ray Griffith'25 AABarstowNeitsch, Fred Ernest'23 EEGiddingsNelson, Greer B'24 AgGreenvilleNeumeyer, Otto MarcoSp. ArWacoNeumeyer, Otto MarcoSp. AgSanta Fe, ArgerNew, TsunyoongSp. AgPeking, ChinaNewell, William HoustonSp. ArMiami, Fla	) <b>-</b>
Naschke, Bertram Brison'22 MEGalvestonNeal, George Truett'23 CEFort WorthNeal, John Lindley'25 EESweetwaterNeath, Edgar Roy'25 EECiscoNeedham, Reginald Lee'25 Pre-MedLorenaNeeley, Marion J'22 TECotullaNeely, Ray Griffith'25 AABarstowNeitsch, Fred Ernest'23 EEGiddingsNelson, Greer B'24 AgGreenvilleNeumeyer, Otto MarcoSp. ArWacoNeumeyer, Otto MarcoSp. AgSanta Fe, ArgerNew, TsunyoongSp. AgPeking, ChinaNewell, William HoustonSp. ArMiami, Fla	)-
Naschke, Bertram Brison'22 MEGalvestonNeal, George Truett'23 CEFort WorthNeal, John Lindley'25 EESweetwaterNeath, Edgar Roy'25 EECiscoNeedham, Reginald Lee'25 Pre-MedLorenaNeeley, Marion J'22 TECotullaNeely, Ray Griffith'25 AABarstowNeitsch, Fred Ernest'23 EEGiddingsNelson, Greer B'24 AgGreenvilleNeumeyer, Otto MarcoSp. ArWacoNeumeyer, Otto MarcoSp. AgSanta Fe, ArgerNew, TsunyoongSp. AgPeking, ChinaNewell, William HoustonSp. ArMiami, Fla	1-
Naschke, Bertram Brison'22 MEGalvestonNeal, George Truett'23 CEFort WorthNeal, John Lindley'25 EESweetwaterNeath, Edgar Roy'25 EECiscoNeedham, Reginald Lee'25 Pre-MedLorenaNeeley, Marion J'22 TECotullaNeely, Ray Griffith'25 AABarstowNeitsch, Fred Ernest'23 EEGiddingsNelson, Greer B'24 AgGreenvilleNeumeyer, Otto MarcoSp. ArWacoNeumeyer, Otto MarcoSp. AgSanta Fe, ArgerNew, TsunyoongSp. AgPeking, ChinaNewell, William HoustonSp. ArMiami, Fla	1-
Naschke, Bertram Brison'22 MEGalvestonNeal, George Truett'23 CEFort WorthNeal, John Lindley'25 EESweetwaterNeath, Edgar Roy'25 EECiscoNeedham, Reginald Lee'25 Pre-MedLorenaNeeley, Marion J'22 TECotullaNeely, Ray Griffith'25 AABarstowNeitsch, Fred Ernest'23 EEGiddingsNelson, Greer B'24 AgGreenvilleNeumeyer, Otto MarcoSp. ArWacoNeumeyer, Otto MarcoSp. AgSanta Fe, ArgerNew, TsunyoongSp. AgPeking, ChinaNewell, William HoustonSp. ArMiami, Fla	1-
Naschke, Bertram Brison'22 MEGalvestonNeal, George Truett'23 CEFort WorthNeal, John Lindley'25 EESweetwaterNeath, Edgar Roy'25 EECiscoNeedham, Reginald Lee'25 Pre-MedLorenaNeeley, Marion J'22 TECotullaNeely, Ray Griffith'25 AABarstowNeitsch, Fred Ernest'23 EEGiddingsNelson, Greer B'24 AgGreenvilleNeumeyer, Otto MarcoSp. ArWacoNeumeyer, Otto MarcoSp. AgSanta Fe, ArgerNew, TsunyoongSp. AgPeking, ChinaNewell, William HoustonSp. ArMiami, Fla	1-
Naschke, Bertram Brison'22 MEGalvestonNeal, George Truett'23 CEFort WorthNeal, John Lindley'25 EESweetwaterNeath, Edgar Roy'25 EECiscoNeedham, Reginald Lee'25 Pre-MedLorenaNeeley, Marion J'22 TECotullaNeely, Ray Griffith'25 AABarstowNeitsch, Fred Ernest'23 EEGiddingsNelson, Greer B'24 AgGreenvilleNeumeyer, Otto MarcoSp. ArWacoNeumeyer, Otto MarcoSp. AgSanta Fe, ArgerNew, TsunyoongSp. AgPeking, ChinaNewell, William HoustonSp. ArMiami, Fla	1-
Naschke, Bertram Brison'22 MEGalvestonNeal, George Truett'23 CEFort WorthNeal, John Lindley'25 EESweetwaterNeath, Edgar Roy'25 EECiscoNeedham, Reginald Lee'25 Pre-MedLorenaNeeley, Marion J'22 TECotullaNeely, Ray Griffith'25 AABarstowNeitsch, Fred Ernest'23 EEGiddingsNelson, Greer B'24 AgGreenvilleNeumeyer, Otto MarcoSp. ArWacoNeumeyer, Otto MarcoSp. AgSanta Fe, ArgerNew, TsunyoongSp. AgPeking, ChinaNewell, William HoustonSp. ArMiami, Fla	)-
Naschke, Bertram Brison'22 MEGalvestonNeal, George Truett'23 CEFort WorthNeal, John Lindley'25 EESweetwaterNeath, Edgar Roy'25 EECiscoNeedham, Reginald Lee'25 Pre-MedLorenaNeeley, Marion J'22 TECotullaNeely, Ray Griffith'25 AABarstowNeitsch, Fred Ernest'23 EEGiddingsNelson, Greer B'24 AgGreenvilleNeumeyer, Otto MarcoSp. ArWacoNeumeyer, Otto MarcoSp. AgSanta Fe, ArgerNew, TsunyoongSp. AgPeking, ChinaNewell, William HoustonSp. ArMiami, Fla	-
Naschke, Bertram Brison'22 MEGalvestonNeal, George Truett'23 CEFort WorthNeal, John Lindley'25 EESweetwaterNeath, Edgar Roy'25 EECiscoNeedham, Reginald Lee'25 Pre-MedLorenaNeeley, Marion J'22 TECotullaNeely, Ray Griffith'25 AABarstowNeitsch, Fred Ernest'23 EEGiddingsNelson, Greer B'24 AgGreenvilleNeumeyer, Otto MarcoSp. ArWacoNeumeyer, Otto MarcoSp. AgSanta Fe, ArgerNew, TsunyoongSp. AgPeking, ChinaNewell, William HoustonSp. ArMiami, Fla	1-
Naschke, Bertram Brison'22 MEGalvestonNeal, George Truett'23 CEFort WorthNeal, John Lindley'25 EESweetwaterNeath, Edgar Roy'25 EECiscoNeedham, Reginald Lee'25 Pre-MedLorenaNeeley, Marion J'22 TECotullaNeely, Ray Griffith'25 AABarstowNeitsch, Fred Ernest'23 EEGiddingsNelson, Greer B'24 AgGreenvilleNeumeyer, Otto MarcoSp. ArWacoNeumeyer, Otto MarcoSp. AgSanta Fe, ArgerNew, TsunyoongSp. AgPeking, ChinaNewell, William HoustonSp. ArMiami, Fla	1-
Naschke, Bertram Brison'22 MEGalvestonNeal, George Truett'23 CEFort WorthNeal, John Lindley'25 EESweetwaterNeath, Edgar Roy'25 EECiscoNeedham, Reginald Lee'25 Pre-MedLorenaNeeley, Marion J'22 TECotullaNeely, Ray Griffith'25 AABarstowNeitsch, Fred Ernest'23 EEGiddingsNelson, Greer B'24 AgGreenvilleNeumeyer, Otto MarcoSp. ArWacoNeumeyer, Otto MarcoSp. AgSanta Fe, ArgerNew, TsunyoongSp. AgPeking, ChinaNewell, William HoustonSp. ArMiami, Fla	
Naschke, Bertram Brison'22 MEGalvestonNeal, George Truett'23 CEFort WorthNeal, John Lindley'25 EESweetwaterNeath, Edgar Roy'25 EECiscoNeedham, Reginald Lee'25 Pre-MedLorenaNeeley, Marion J'22 TECotullaNeely, Ray Griffith'25 AABarstowNeitsch, Fred Ernest'23 EEGiddingsNelson, Greer B'24 AgGreenvilleNeumeyer, Otto MarcoSp. ArWacoNeumeyer, Otto MarcoSp. AgSanta Fe, ArgerNew, TsunyoongSp. AgPeking, ChinaNewell, William HoustonSp. ArMiami, Fla	)-
Naschke, Bertram Brison'22 MEGalvestonNeal, George Truett.'23 CEFort WorthNeal, John Lindley'25 EESweetwaterNeath, Edgar Roy'25 EECiscoNeedham, Reginald Lee'25 Pre-MedLorenaNeeley, Marion J'22 TECotullaNeely, Ray Griffith'25 AABarstowNeitsch, Fred Ernest'23 EEGiddingsNelson, Greer B'24 AgGreenvilleNelson, Herman ClementsSp. ArWacoNeuweyer, Otto MarcoSp. AgSanta Fe, Argertine, S. A.Sp. AgPeking, ChinaNewell, William HoustonSp. ArMiami, Fla,	- 1-

Norris, Fred Boyd	Ag. EdHubbard AANavasota MESan Antonio AgBig Springs
O'Callaghan, John	MEDallas
O'Connor, Joseph Henry	MEHouston
Ogietree, J. D	Ag New Braunfels
Old, William Donald	EE San Antonio
Oliphint, David Hayden	CESherman
Olippint, Joseph B	Ag. EdBryan
de Oliveire, Logg Vieire	, 1San Antonio
de Oliveira, Joas vielra	Brazil, S. A.
Oliveira, Raphael d' Auila.SOliver, John Percy.'2Olsen, Carl Edwin.'2Olson, Arden Mansfield.'2Oryshek, Karl.'2O'Quinn, Gorman B.'2Orr, Albert Stanford.'2Orr, Joseph Anderson.'2Ort, Robert F.'2Ortolani, Walter Albert.'2Osborn, John Baylor.'2Owen, Robert Kyle.'2Owens, Ralph Charles.'2Owens, Roy Morris.'2	$A \sigma$ Rio de Janeiro
Oliver, John Percy'28	5 CE Corsicana
Olsen, Carl Edwin'28	BMEClifton
Olson, Arden Mansfield	BEEClifton
Opryshek, Karl'22	<b>ChENew Braunfels</b>
O'Quinn, Gorman B'28	BEEBeaumont
Orr, Albert Stanford	ChEWaco
Orr, Joseph Anderson	CEBlytheville, Ark.
Orr, William Bassett	AgDallas
Ortoloni Walton Albort	MESan Antonio
Ortolani, Walter Albert	DCEFort Worth
Owon Pohert Kylo	FF Goinoguillo
Owens Balph Charles	Pro-Mod Dickinson
Owens, Roy Morris	Ar Bonham
Palmer, Fred Niles, Jr	EEDallas
Palmer, Fred Niles, Jr'22 Palmer, Frank S'22	EEDallas
Palmer, Fred Niles, Jr	EEDallas VMTexas City 1Fort Worth
Palmer, Fred Niles, Jr.       '22         Palmer, Frank S.       '22         Palmer, Joe Collier.       N         Palmer, Kenneth Sterling.       '24         Palmer, Kenneth Sterling.       '24	EEDallas VMTexas City 1Fort Worth EESan Antonio
Palmer, Fred Niles, Jr.       '22         Palmer, Frank S.       '22         Palmer, Joe Collier.       N         Palmer, Kenneth Sterling.       '24         Parish, Thomas Lee.       '25         Parish, Thomas Lee.       '25	EEDallas VMTexas City 1Fort Worth EESan Antonio MEBeaumont
Palmer, Fred Niles, Jr.       '22         Palmer, Frank S.       '22         Palmer, Joe Collier.       N         Palmer, Kenneth Sterling.       '24         Parish, Thomas Lee.       '22         Park, Leo Goodwin.       '22         Park, Leo Boodwin.       '24         Park, Density School       '24	EE Dallas VM Texas City 1Fort Worth EESan Antonio MEBeaumont ChEGreenville
Palmer, Fred Niles, Jr.       '22         Palmer, Frank S.       '22         Palmer, Joe Collier.       N         Palmer, Kenneth Sterling.       '24         Parish, Thomas Lee.       '22         Park, Leo Goodwin.       '22         Park, Phocion Sheeks.       '24         Park, Photon Sheeks.       '24	EE Dallas VM Texas City 1Fort Worth EESan Antonio MEBeaumont ChEBryan CEBryan
Palmer, Fred Niles, Jr.       '22         Palmer, Frank S.       '22         Palmer, Joe Collier.       N         Palmer, Kenneth Sterling.       '24         Parish, Thomas Lee.       '22         Park, Leo Goodwin.       '22         Park, Phocion Sheeks.       '24         Parke, Albert Lafayette.       '25         Parke, Charles D.       '25	EEDallas         VMFort Worth         EESan Antonio         MEBeaumont         ChEGreenville         CEDickinson         Ag. Ed.
Palmer, Fred Niles, Jr.       '22         Palmer, Frank S.       '22         Palmer, Joe Collier.       N         Palmer, Kenneth Sterling.       '22         Parish, Thomas Lee.       '22         Park, Leo Goodwin.       '22         Park, Phocion Sheeks.       '24         Parke, Albert Lafayette.       '25         Parker, Charles D.       S1         Parker, Lohn Bouth       '24	EEDallas         VMFort Worth         EEFort Worth         EEFort Worth         ChEFort Worth         CEGreenville         CEDickinson         Ag. EdDilley         CEDirename
Palmer, Fred Niles, Jr.'22Palmer, Frank S.'22Palmer, Joe Collier.NPalmer, Kenneth Sterling.'24Parish, Thomas Lee.'22Park, Leo Goodwin.'22Park, Phocion Sheeks.'24Parker, Albert Lafayette.'22Parker, Charles D.S1Parker, John Routh.'24Parker, Wallis Prescott.'24	EEDallas         VMFort Worth         EESan Antonio         MEBeaumont         ChEGreenville         CEDickinson         Ag. EdDilley         CEBrenham         EEBaird
Palmer, Fred Niles, Jr.'22Palmer, Frank S.'22Palmer, Joe Collier.NPalmer, Kenneth Sterling.'24Parish, Thomas Lee.'22Park, Leo Goodwin.'22Park, Leo Goodwin.'24Parke, Albert Lafayette.'24Parker, Charles D.S1Parker, John Routh.'24Parker, Wallis Prescott.'22Parker, Wallis Ordon Wight.'24	EE.       Dallas         VM.       Texas City         1.       Fort Worth         EE.       San Antonio         ME.       Beaumont         Che.       Greenville         CE.       Bryan         CE.       Dickinson         Ag. Ed.       Dilley         CE.       Brenham         EE.       Baird         CE.       Longview
Palmer, Fred Niles, Jr.'22Palmer, Frank S.'22Palmer, Joe Collier.NPalmer, Kenneth Sterling.'24Parish, Thomas Lee.'22Park, Leo Goodwin.'24Park, Leo Goodwin.'25Park, Albert Lafayette.'22Parker, Charles D.S1Parker, Vallis Prescott.'22Parker, Wallis Prescott.'22Parker, Wallis Prescott.'22Parker, John Earle.'24	EEDallas         VMTexas City         1Fort Worth         EESan Antonio         MEBeaumont         ChEDickinson         CEDickinson         Ag. EdDilley         CEBryan         CEBryan         CEDickinson         Ag. EdDilley         CEBrenham         EEBrenham         EBaird         CEFort Worth
Palmer, Fred Niles, Jr.'22Palmer, Frank S.'23Palmer, Joe Collier.NPalmer, Kenneth Sterling.'24Parish, Thomas Lee.'22Park, Leo Goodwin.'24Park, Phocion Sheeks.'24Parke, Albert Lafayette.'25Parker, Charles D.SParker, Wallis Prescott.'24Parker, Wallis Prescott.'24Parker, John Routh.'24Parker, John Routh.'24Parker, John Routh.'24Parker, Wallis Prescott.'24Parkkill, Gordon Wight.'24Parks, John Earle.NParnell, Edward Douglas.'25	EEDallas         VMFort Worth         EESan Antonio         MEBeaumont         ChEBryan         CEDickinson         O. Ag. EdDilley         CEBrenham         EEBrenham         CEBrenham         EBrenham         ABrenham         EBrenham         EBrenham         ABrenham         EBrenham         ABaird         CECongview         1Fort Worth         Ag. EdGlen Rose
Palmer, Fred Niles, Jr.'22Palmer, Frank S.'23Palmer, Joe Collier.NPalmer, Kenneth Sterling.'24Parish, Thomas Lee.'24Park, Leo Goodwin.'24Park, Phocion Sheeks.'24Parke, Albert Lafayette.'25Parker, Charles D.SParker, Wallis Prescott.'22Parks, John Routh.'24Parker, Mallis Prescott.'25Parker, Jahn Barle.NParnell, Edward Douglas.'25Part, James Knox.'24	EEDallas         VMFort Worth         EESan Antonio         MEBeaumont         ChEBryan         CEDickinson         D.Ag. EdDilley         CEFort Worth         EEBryan         CEDickinson         D.Ag. EdDilley         CEFort Worth         Ag. EdFort Worth
Palmer, Fred Niles, Jr.'22Palmer, Frank S.'22Palmer, Joe Collier.NPalmer, Kenneth Sterling.'24Parish, Thomas Lee.'22Park, Leo Goodwin.'24Parke, Albert Lafayette.'24Parker, Charles D.S1Parker, John Routh.'24Parker, Wallis Prescott.'24Parks, John Earle.NParnell, Edward Douglas.'24Pars, James Knox.'24Parsons, Joseph Martin.'24Parsons, Joseph Martin.'24	EEDallas         VMFort Worth         EESan Antonio         MEBeaumont         ChEGreenville         CEDickinson         O. Ag. EdDilley         CEFort Worth         EEBryan         CEDickinson         O. Ag. EdDilley         CEFort Worth         EEFort Worth         Ag. EdGlen Rose         Ag
Palmer, Fred Niles, Jr.'22Palmer, Frank S.'22Palmer, Joe Collier.NPalmer, Kenneth Sterling.'24Parish, Thomas Lee.'22Park, Leo Goodwin.'24Park, Leo Goodwin.'24Parke, Albert Lafayette.'22Parker, Charles D.SParker, John Routh.'24Parker, Wallis Prescott.'22Parker, Wallis Prescott.'24Parks, John Earle.NParnell, Edward Douglas.'24Parsons, Joseph Martin.'24Paschal, Samuel Sylvester.'24	intermediate       Dallas         intermediate       Dallas         intermediate       Texas City         intermediate       Fort Worth         intermediate       San Antonio         intermediate       Beaumont         intermediate       Greenville         intermediate       Breyan         intermediate       Creenville         intermediate       Breyan         intermediate       Dickinson         intermediate       Breyan         intermediate       Creenville         intermediate       Brenham         intermediate       Brenham         intermediate       Brenham         intermediate       Creenville         intermediate       Greenville         in
Palmer, Fred Niles, Jr.'22Palmer, Frank S.'22Palmer, Joe Collier.NPalmer, Kenneth Sterling.'24Parish, Thomas Lee.'22Park, Leo Goodwin.'22Park, Leo Goodwin.'22Parke, Albert Lafayette.'23Parker, Charles D.S1Parker, John Routh.'24Parker, Wallis Prescott.'22Parker, Wallis Prescott.'24Parker, John Routh.'24Parker, John Routh.'24Parker, John Routh.'24Parker, John Barle.NParnell, Edward Douglas.'22Parr, James Knox.'24Paschal, Samuel Sylvester.S1Paterson, Jack.'24	EE.       Dallas         VM.       Texas City         1.       Fort Worth         EE.       San Antonio         ME.       Beaumont         ChE.       Greenville         CE.       Dickinson         Ag. Ed.       Dilley         CE.       Brenham         EE.       Baird         CE.       Fort Worth         Ag. Ed.       Glen Rose         Ag.       Hillsboro         ME.       Greenville         O. Ag.       Mount Calm
Palmer, Fred Niles, Jr.'22Palmer, Frank S.'22Palmer, Joe Collier.NPalmer, Kenneth Sterling.'24Parish, Thomas Lee.'22Park, Leo Goodwin.'24Park, Leo Goodwin.'25Park, Albert Lafayette.'26Parker, Charles D.'27Parker, Charles D.'28Parker, Wallis Prescott.'22Parker, Wallis Prescott.'22Parker, Wallis Prescott.'22Parker, John Routh.'24Parks, John Earle.NParnell, Edward Douglas.'22Parr, James Knox.'24Parsons, Joseph Martin.'24Paschal, Samuel Sylvester.S1Patterson, Jack.'24Patterson, Earl Frederick.'22	EE.       Dallas         VM.       Texas City         1.       Fort Worth         EE.       San Antonio         ME.       Beaumont         ChE.       Greenville         CE.       Dickinson         Ag. Ed.       Dilley         CE.       Baird         CE.       Fort Worth         Ag. Ed.       Glen Rose         Ag.       Hillsboro         ME       Greenville         Ag.       Mount Calm         Ag.       Austin         ME.       Galveston
Palmer, Fred Niles, Jr.'22Palmer, Frank S.'23Palmer, Joe Collier.NPalmer, Kenneth Sterling.'24Parish, Thomas Lee.'24Parish, Thomas Lee.'25Park, Leo Goodwin.'26Park, Leo Goodwin.'26Parke, Albert Lafayette.'25Parker, Charles D.'26Parker, Vallis Prescott.'26Parker, Wallis Prescott.'26Parker, Wallis Prescott.'26Parker, John Routh.'24Parker, John Earle.NParnell, Edward Douglas.'25Parr, James Knox.'24Parsons, Joseph Martin.'24Paschal, Samuel Sylvester.S1Paterson, Jack.'24Patterson, Earl Frederick.'22Pattillo, Robert E. L.'22	intermediate       Dallas         intermediate       Dallas         intermediate       Texas City         1Fort Worth       Fort Worth         EESan Antonio       MEBryan         intermediate       Greenville         CEBryan       CEBryan         CEDickinson       D.         Ag. EdDilley       CEBrenham         intermediate       Baird         CELongview       IFort Worth         Ag. EdGlen Rose       AgHillsboro         MEGreenville       MeGreenville         AgMount Calm       AgAustin         MEGalveston       AgGreenville
Palmer, Fred Niles, Jr.'22Palmer, Frank S.'22Palmer, Joe Collier.NPalmer, Kenneth Sterling.'24Park, Thomas Lee.'25Park, Leo Goodwin.'26Park, Phocion Sheeks.'24Parke, Albert Lafayette.'22Parker, Charles D.S1Parker, Wallis Prescott.'22Parker, Wallis Prescott.'22Parker, John Routh.'24Parker, Wallis Prescott.'22Parker, John Barle.NParnell, Edward Douglas.'22Part, James Knox.'24Paschal, Samuel Sylvester.S5Patterson, Lack.'24Patterson, Earl Frederick.'24Pattillo, Robert E. L.'22Patton, Joseph Alfred.'22Patton, Joseph Alfred.'22	in Ee       Dallas         in VM       Texas City         1Fort Worth         EE       San Antonio         ME       Beaumont         in ChE       Greenville         CE       Bryan         CE       Dilley         CE       Brenham         EE       Baird         CE       Longview         1Fort Worth         Ag. Ed       Glen Rose         Ag       Mount Calm         Ag       Austin         ME       Galveston         Ag       Greenville
Palmer, Fred Niles, Jr.'22Palmer, Frank S.'22Palmer, Joe Collier.NPalmer, Kenneth Sterling.'24Parish, Thomas Lee.'22Park, Leo Goodwin.'24Park, Leo Goodwin.'24Parke, Albert Lafayette.'22Parke, Albert Lafayette.'22Parker, Charles D.SParker, John Routh.'24Parker, Wallis Prescott.'22Parker, Wallis Prescott.'22Parker, John Earle.NParnell, Edward Douglas.'23Parr, James Knox.'24Paschal, Samuel Sylvester.S1Patterson, Jack.'24Patterson, Jack.'24Patton, Joseph Alfred.'22Patton, James Russell.'22Patton, Willier, Mare, Weiler, Weiler, Weiler, Weiler, Weiler, '24	intermediate       Dallas         intermediate       Dallas         intermediate       Fort Worth         intermediate       Fort Worth         intermediate       San Antonio         intermediate       Beaumont         intermediate       Greenville         intermediate       Beaumont         inte       Ge
Palmer, Fred Niles, Jr.'22Palmer, Frank S.'22Palmer, Joe Collier.NPalmer, Kenneth Sterling.'24Parish, Thomas Lee.'22Park, Leo Goodwin.'24Park, Leo Goodwin.'24Park, Albert Lafayette.'22Parker, Albert Lafayette.'22Parker, Charles D.S1Parker, John Routh.'24Parker, Wallis Prescott.'22Parker, Wallis Prescott.'22Parker, John Earle.NParnell, Edward Douglas.'24Parsons, Joseph Martin.'24Patterson, Jack.'24Patterson, Jack.'24Patton, Joseph Alfred.'25Patton, James Russell.'25Patton, William Max.'24Patton, William Max.'24	EE.       Dallas         VM.       Texas City         1.       Fort Worth         EE.       San Antonio         ME.       Beaumont         ChE.       Greenville         CE.       Dickinson         O. Ag. Ed.       Dilley         CE.       Brenham         EE.       Baird         CE.       Longview         1.       Fort Worth         Ag. Ed.       Glen Rose         Ag.       Hillsboro         ME.       Greenville         Ag.       Mount Calm         Ag.       Goss, La.         AA.       Waco         EE.       Greenville
Palmer, Fred Niles, Jr.'22Palmer, Frank S.'22Palmer, Joe Collier.NPalmer, Kenneth Sterling.'24Parish, Thomas Lee.'22Park, Leo Goodwin.'24Park, Leo Goodwin.'25Park, Albert Lafayette.'26Parker, Albert Lafayette.'26Parker, Charles D.S1Parker, John Routh.'24Parker, Wallis Prescott.'22Parker, Wallis Prescott.'22Parker, John Barle.NParnell, Edward Douglas.'22Parr, James Knox.'24Parsons, Joseph Martin.'24Patterson, Jack.'24Patterson, Earl Frederick.'25Pattillo, Robert E. L.'22Patton, Joseph Alfred.'25Patton, James Russell.'24Patton, William Max.'24Patton, William Palmer.'25Patton, William Palmer.'25Patton, William Palmer.'25Patton, Farl Barbour'25Patton, William Palmer.'25Patton, William Palmer.'25Patton, William Palmer.'25Patton, Farl Barbour'25Patton, Farl Barbour'25Patton, Farl Barbour'25	EE.       Dallas         VM.       Texas City         1.       Fort Worth         EE.       San Antonio         ME.       Beaumont         ChE.       Greenville         CE.       Dickinson         O. Ag. Ed.       Dilley         CE.       Brenham         EE.       Baird         CE.       Longview         1.       Fort Worth         Ag. Ed.       Glen Rose         Ag.       Hillsboro         ME.       Greenville         O. Ag.       Mount Calm         Ag.       Galveston         Ag.       Goss, La.         AA.       Waco         EE.       Greenville         Ag.       Goss, La.         O. Ag.       Goss, La.
Palmer, Fred Niles, Jr.'22Palmer, Frank S.'22Palmer, Joe Collier.NPalmer, Kenneth Sterling.'24Parish, Thomas Lee.'22Park, Leo Goodwin.'22Park, Leo Goodwin.'22Park, Leo Goodwin.'22Parke, Albert Lafayette.'22Parker, Charles D.'24Parker, John Routh.'24Parker, John Routh.'24Parker, Wallis Prescott.'22Parker, Wallis Prescott.'22Parker, John Earle.NParnell, Edward Douglas.'24Parsons, Joseph Martin.'24Paschal, Samuel Sylvester.S1Patterson, Earl Frederick.'22Patton, Joseph Alfred.'22Patton, James Russell.'22Patton, William Max.'24Patton, William Palmer.'22Patton, William Alkprook.'24Patton, William Alkprook.'24	i       EE       Dallas         i       VM       Texas City         1       Fort Worth         EE       San Antonio         ME       Beaumont         i       ChE         Greenville       Greenville         CE       Dickinson         O. Ag. Ed       Dilley         CE       Brenham         EE       Baird         CE       Clen Rose         Ag       Glen Rose         Ag       Hillsboro         ME       Galveston         Ag       Galveston         Ag       Goss, La.         AA       Waco         EE       Greenville         Ag       Goss, La.         Chag       Goss, La.         Chag       Goss, La.         Cheg       Gaingesylle
Palmer, Fred Niles, Jr.'22Palmer, Frank S.'23Palmer, Joe Collier.NPalmer, Kenneth Sterling.'24Parish, Thomas Lee.'25Park, Leo Goodwin.'26Park, Leo Goodwin.'26Park, Leo Goodwin.'26Parke, Albert Lafayette.'26Parker, Charles D.'27Parker, John Routh.'24Parker, Wallis Prescott.'22Parker, Wallis Prescott.'22Parker, Wallis Prescott.'22Parks, John Earle.NParnell, Edward Douglas.'22Parr, James Knox.'24Patreson, Jack.'24Patterson, Jack.'24Patton, Joseph Alfred.'22Patton, Joseph Alfred.'22Patton, James Russell.'22Patton, William Max.'24Patton, William Palmer.'22Patton, William Allsbrook.'22Payne, William Allsbrook.'22Payne, Leonard Eshar'25	i       EE       Dallas         i       VM       Texas City         1       Fort Worth         EE       San Antonio         ME       Beaumont         i       Che         Greenville       Greenville         CE       Dickinson         o. Ag       Ed         Dilley       CE         CE       Brenham         EE       Baird         CE       Longview         1       Fort Worth         Ag       Glen Rose         Ag       Hillsboro         ME       Greenville         Ag       Mount Calm         Ag       Goss, La         AA       Waco         EE       Greenville         Ag       Goss, La         AA       Waco         EE       Goss, La         Defension       College Station         ChE       College Station
Palmer, Fred Niles, Jr.'22Palmer, Frank S.'22Palmer, Joe Collier.NPalmer, Joe Collier.NPalmer, Kenneth Sterling.'24Parish, Thomas Lee.'22Park, Leo Goodwin.'24Park, Phocion Sheeks.'24Parke, Albert Lafayette.'22Parker, Charles D.S1Parker, John Routh.'24Parker, Wallis Prescott.'25Parker, Wallis Prescott.'25Parkkil, Gordon Wight.'24Parks, John Earle.NParnell, Edward Douglas.'25Part, James Knox.'24Paschal, Samuel Sylvester.S1Patterson, Jack.'24Patterson, Jack.'24Patton, Joseph Alfred.'25Patton, Joseph Alfred.'25Patton, William Max.'24Patton, William Max.'24Patton, William Allsbrook.'22Paxton, Earl Barbour.S1Payne, William Allsbrook.'22Pacock, Leonard Eshar'23Peacock, William.'24	i       EE       Dallas         i       VM       Texas City         1       Fort Worth         EE       San Antonio         ME       Beaumont         i       Che         i       Greenville         i       Che         i       Greenville         i       Che         i       Greenville         i       Che         i       Baird         CE       Baird         CE       Longview         1       Fort Worth         Ag       Glen Rose         Ag       Hillsboro         ME       Greenville         Ag       Mount Calm         Ag       Galveston         Ag       Goss, La         AA       Waco         EE       Goss, La         AA       Waco         EE       College Station         Che       Gainesville         EE       Runge         EE       Runge
Palmer, Fred Niles, Jr.'22Palmer, Frank S.'22Palmer, Joe Collier.NPalmer, Joe Collier.NPalmer, Kenneth Sterling.'24Parish, Thomas Lee.'25Park, Leo Goodwin.'25Park, Leo Goodwin.'26Parke, Albert Lafayette.'26Parker, Charles D.'27Parker, John Routh.'24Parker, Wallis Prescott.'22Parker, Wallis Prescott.'24Parker, John Routh.'24Parker, John Routh.'24Parker, John Routh.'24Parker, John Routh.'24Parker, John Routh.'24Parker, John Barle.'26Parkil, Gordon Wight.'24Parks, John Earle.'26Parsons, Joseph Martin.'24Parsons, Joseph Martin.'24Paschal, Samuel Sylvester.'26Patterson, Jack.'27Patton, Joseph Alfred.'25Patton, Joseph Alfred.'25Patton, William Max.'24Patton, William Palmer.'22Paxton, Earl Barbour.'27Payne, William Allsbrook.'22Peacock, Leonard Eshar'22Peak, Newton Edward, Jr.'24	intermediate       Dallas         intermediate       Dallas         intermediate       Texas City         intermediate       Fort Worth         intermediate       San Antonio         intermediate       Beaumont         intermediate       Greenville         intermediate       Beaumont         intermediate       Ageon         intermediate       Beaumont         intermediate       Beaumont         intermediate       <

.2

Dense Dental Conveling	104 1410	Cuana
Peavy, Daniel Cornelius	. 24 ME	. Quero
Peavy, Daniel Cornelius Pederson, Peter Oliver	.'25 EE	. Dayton
Pelt. Isaac Henry	. C 1	. Cedar Hill
Pendleton Eldridge Honaker	'23 Ag	Farmersville
Poopler Hillery Lee Ir	'25 A Å	Dallas
Denders, Einer M	20 AA	Dagran
Perque, Earl M	. 25 AA	. Reagan
Perkins, William Lloyd	. Sp. Ag	Batson
Pederson, Peter Oliver         Pelt, Isaac Henry         Pendleton, Eldridge Honaker.         Peoples, Hillery Lee, Jr.         Perdue, Earl M.         Perkins, William Lloyd         Perry, Dick.         Perry, Ernest Reide         Peters, Joe Frank.         Pfaff, Albert G.         Pfaff, John Steinley.         Pfau, Ralph Leslie.         Pfluger, Walter Lee.         Phillips, Charles Cecil.         Phillips, James Kolb	.'25 Ar	. Mineola
Perry, Ernest Reide	'25 EE	.Bay City
Peters Joe Frank	'25 Ag	Giddings
Dfaff Albort C	'94 FF	Gainesville
Df. C. Taha Gtalalan	· 24 DD	Alarin
Plan, John Steinley.	. 24 Ar	Alvin
Pfau, Ralph Leslie	. 24 CE	. Victoria
Pfluger, Walter Lee.	.'24 AA	. Eden
Phillips, Charles Cecil	.'24 CE	. Rockdale
Philling James Kolh	Sn Ag	Rockdale
Dhilling Occor Kolly In	'95 FF	Roalzdala
Finnips, Oscar Keny, Jr	20 CE	Continue
Phillips, Ross	. 23 CE	. Corsicana
Pierce, Lewis Alva	. Sp. Ag	. Marshall
Pinson. Harry Tom	.'22 Ag	. Proctor
Pinson, Samuel Augustus, Jr	'24 CE	Forney
Plummer Balph Loe	н 1	Polytechnic
Diumiratt Lourin In	· 11 1	Dollag
	. 24 Ag	. Dallas
Phillips, Charles Cecil.         Phillips, James Kolb.         Phillips, Oscar Kelly, Jr.         Phillips, Ross.         Pierce, Lewis Alva         Pinson, Harry Tom.         Pinson, Samuel Augustus, Jr.         Plummer, Ralph Joe.         Plunkett, Lewin, Jr.         Pluss, Herman.         Poage, Conger.         Poe. Fred Tavlor.	. N Z	. Galveston
Poage, Conger	.'24 Ag	. Waco
Poe, Fred Taylor	. H 1	. Commerce
Poole, Samuel Euclid.	Sp. Ag	Hattiesburg, Miss.
Porter Charles Moorings	'25 A A	Terrell
Portor John Buron	'99 MF	Calvert
Poage, Conger. Poe, Fred Taylor. Poole, Samuel Euclid. Porter, Charles Moorings. Porter, John Buren. Porter, James Walter. Poth, Jacob Henry. Potts, Charles Bruce. Powell, Bert R. Prewit, James David. Price, Robert Eben. Prickett, Paul Smith. Proehl, Oscar Arthur. Puckett, Almor Manor, Jr Pugh, Martin Harold, Jr. Pustejovsky, Raymond George. Pye, Benier Freeman, Jr. Pyland, James Wesley.	200 CE	. Oalvelt
Porter, James walter	. 22 UL	. Terren
Poth, Jacob Henry	. 25 Ag. Eng	.Potn
Potts, Charles Bruce	.'24 AA	. Batesville
Powell, Bert R.	.'25 Ag	. Bangs
Prewit. James David	.'25 Ag	. Pecos
Price Robert Eben	'22 ME	Kerens
Prickott Paul Smith	'22 ChE	Fort Worth
Prochl Occor Arthur	· 22 Ond	Houston
Proent, Oscar Arthur	. 23 Ag	. Houston
Puckett, Almor Manor, Jr.	. 25 AA	. San Antonio
Pugh, Martin Harold, Jr	.'25 Ag. Eng	. Mercedes
Pustejovsky, Raymond George	.'23 Ar	. Moulton
Putnam, Somers	'25 CE	Throckmorton
Pyo Bonier Freeman Ir	'25 Åg	Begumont
Dyland James Wealer	205 A A	Marlin
r ylanu, James Wesley	. 20 AA	. Maimi
	• • • • •	*****
Quayle, Richard	. 25 Ag	. Hillsboro
Quayle, Richard Quinn, John Donahue	.'25 AA	. Navasota
Rachel, Harvey Lee Radi, Salim Abdullah	C 1	Texarkana
Radi Salim Abdullah	'24 År	Bardad Merono-
	. 44 Ag	tamia
		Diama
Ragsdale, Thomas Henry	. 25 EE	. Palestine
Rainey, Anson, Jr	.'25 Ar	. Dallas
Ram, Avinashi	.'24 TE	. Calcutta, India
Ramsev. Newell Montague	.'25 EE	. Port Arthur
Rankin, Edward Lochridge	'25 Ar	Waxahachie
Ransome William Marshall	'25 EF	Bastron
Dataliffa Thomas Cideon	· 20 DE	Son Antonio
Dending Dedenials Alaria	. 44 Ar	. Sall Alltonio
Rawlins, Roderick Alexis	. 20 UE	. Lancaster
Ray, Forrest G	. Sp. EE	.Troup
Ragsdale, Thomas Henry. Rainey, Anson, Jr. Ram, Avinashi. Ramsey, Newell Montague. Rankin, Edward Lochridge. Ransome, William Marshall. Ratcliffe, Thomas Gideon. Rawlins, Roderick Alexis. Ray, Forrest G. Ray, Jo. Rea, Homer Earle.	. Sp. Ag	. Crowell
Rea. Homer Earle	.'22 AA	. Rosebud
,		

•	
Reagan, Charles Anderson Real, Casper Rech, Edwin George Reddick, DeWitt Carter Reddick, Walter Newton Redditt, Thomas Guyton Reed, Nichols Homer Reed, Russell Harold. Reed, Thomas Franklin	
Real. Casper.	'22 Ag
Rech. Edwin George	25 AA Smithville
Reddick, DeWitt Carter	25 CE Fort Worth
Reddick Walter Newton	25 TE Fort Worth
Redditt Thomas Guyton	29 CF Contor
Dood Nichola Homer	C 9 Storling City
Deed, Nichols Homer	O Z
Reed, Russell Harold	25 AA Cooleage
Reed, Thomas Franklin	Sp. Ag Clayton
Reedy, Morris	
Reedy, Wilson Newton	
Reese, Joseph Travis	Sp. TE Freeport
Reid, Dalton Lee	'25 CE Greenville
Reid, Rogers Fullerton	'23 EE Orange
Reitch, Tom Clarence	25 Ag Mineola
Remschel. Marvin Henry	. '25 AA Gonzales
Remy, T. P	Sp. Ag. College Station
Renfro Robert Delmore	25 CE Hillshoro
Reutzol Harry Porry	'25 ChE San Antonio
Rownaud Ocean Field	20 CF Houston
Downolda Jamoa Milton	29 AA Mount Colm
Derrolds, James Milton	205 An Drough Calm
Reynolds, Ralph Rodney	
Rice, Millard Weaver	
Richards, William Boon	
Richardson, Alvin Ike	25 EE McKinney
Richardson, David Porter, Jr.	'23 EEHenderson
Richter, Charles Montgomery	C 1 Waco
Rike, Robert Aldridge	'25 AA Farmersville
Ripple, Harold John	. '25 AA Sealy
Risley, Clifford George	N 1. College Station
Robbins, Jesse Jewell	'25 VM McKinney
Roberts Herman Lorenza	'24 ME Corsicana
Tobertos, Herman Dorenza	MILL
Roberts Hubert ()sear	24 Ag Eng Torroll
Roberts, Hubert Oscar	
Roberts, Hubert Oscar Roberts, Paul Henry Poberts, W. Noblo	
Roberts, Hubert Oscar Roberts, Paul Henry. Roberts, W. Noble	'24 Ag. EngTerrell N 2Itasca '25 AAPampa '25 FF Vomen
Roberts, Hubert Oscar. Roberts, Paul Henry. Roberts, W. Noble. Robertson, Carl Edward.	'24 Ag. EngTerrell N 2Itasca .'25 AAPampa .'25 EEVernon
Roberts, Hubert Oscar Roberts, Paul Henry Roberts, W. Noble Robertson, Carl Edward Robinson, Brittain Bragunier	'24 Ag. EngTerrell N 2Itasca .'25 AAPampa .'25 EEVernon .'23 AgGalveston
Roberts, Hubert Oscar. Roberts, Paul Henry. Roberts, W. Noble. Robertson, Carl Edward. Robinson, Brittain Bragunier. Robinson, Conrad A.	'24 Ag. EngTerrell . N 2Itasca .'25 AAPampa .'25 EEVernon .'23 AgGalveston .'24 AgBartlett
Roberts, Hubert Oscar. Roberts, Paul Henry. Roberts, W. Noble. Robertson, Carl Edward. Robinson, Brittain Bragunier. Robinson, Conrad A. Rogers, Archie Clifton.	'24 Ag. EngTerrell . N 2Itasca .'25 AAPampa .'25 EEVernon .'23 AgGalveston .'24 AgBartlett .'23 EECameron
Roberts, Hubert Oscar.         Roberts, Paul Henry.         Roberts, W. Noble.         Robertson, Carl Edward.         Robinson, Brittain Bragunier.         Robinson, Conrad A.         Rogers, Archie Clifton.         Rogers, Clinton Charles.	'24 Ag. EngTerrell . N 2Itasca .'25 AAPampa .'25 EEVernon .'23 AgGalveston .'24 AgBartlett .'23 EECameron .'23 AgHondo
Roberts, Hubert Oscar.         Roberts, Paul Henry.         Roberts, W. Noble.         Robertson, Carl Edward.         Robinson, Brittain Bragunier.         Robinson, Conrad A.         Rogers, Archie Clifton.         Rogers, Clinton Charles.         Rogers, Elbert William.	'24 Ag. EngTerrell. N 2Itasca.'25 AAPampa.'25 EEVernon.'23 AgGalveston.'24 AgBartlett.'23 EECameron.'23 AgHondo.'22 AgSulphur Springs
Roberts, Hubert Oscar. Roberts, Paul Henry. Roberts, W. Noble. Robertson, Carl Edward. Robinson, Brittain Bragunier. Robinson, Conrad A. Rogers, Archie Clifton. Rogers, Clinton Charles. Rogers, Elbert William. Rogers, Herman Leach.	.'24 Ag. EngTerrell . N 2Itasca .'25 AAPampa .'25 EEVernon .'23 AgGalveston .'24 AgBartlett .'23 EECameron .'23 AgHondo .'22 EESulphur Springs .'25 AgMart
Roberts, Hubert Oscar.         Roberts, Paul Henry.         Roberts, W. Noble.         Robertson, Carl Edward.         Robinson, Brittain Bragunier.         Robinson, Conrad A.         Rogers, Archie Clifton.         Rogers, Clinton Charles.         Rogers, Elbert William.         Rogers, Herman Leach.         Rogers, Joe Louis.	
Roberts, Hubert Oscar.         Roberts, Paul Henry.         Roberts, W. Noble.         Robertson, Carl Edward.         Robinson, Brittain Bragunier.         Robinson, Conrad A.         Rogers, Archie Clifton.         Rogers, Clinton Charles.         Rogers, Elbert William.         Rogers, Joe Louis.         Rogers, Robert Lee, Jr.	.'24 Ag. Eng Terrell . N 2Itasca .'25 AA Pampa .'25 EE Vernon .'23 AgGalveston .'24 AgBartlett .'23 EECameron .'23 AgHondo .'22 EESulphur Springs .'25 AgMart .Sp. AgBlum .'25 AgFort Worth
Roberts, Hubert Oscar.         Roberts, Paul Henry.         Roberts, W. Noble.         Robertson, Carl Edward.         Robinson, Brittain Bragunier.         Robinson, Conrad A.         Rogers, Archie Clifton.         Rogers, Clinton Charles.         Rogers, Elbert William.         Rogers, Joe Louis.         Rogers, Robert Lee, Jr.         Roll. Glenn Wood.	.'24 Ag. EngTerrell         . N 2Itasca         .'25 AAPampa         .'25 EEVernon         .'23 AgVernon         .'24 AgBartlett         .'23 EECameron         .'24 AgBartlett         .'25 EESulphur Springs         .'25 AgBlum         .'25 ChEDallas
Roberts, Hubert Oscar.         Roberts, Paul Henry.         Roberts, W. Noble.         Robertson, Carl Edward.         Robinson, Brittain Bragunier.         Robinson, Conrad A.         Rogers, Archie Clifton.         Rogers, Clinton Charles.         Rogers, Elbert William.         Rogers, Joe Louis.         Rogers, Robert Lee, Jr.         Roll, Glenn Wood.         Bomberg. Conrad Julius	.'24 Ag. Eng Terrell         . N 2
Roberts, Hubert Oscar.         Roberts, Paul Henry.         Roberts, W. Noble.         Robinson, Carl Edward.         Robinson, Brittain Bragunier.         Robinson, Conrad A.         Rogers, Archie Clifton.         Rogers, Clinton Charles.         Rogers, Elbert William.         Rogers, Joe Louis.         Rogers, Robert Lee, Jr.         Roll, Glenn Wood.         Romberg, Conrad Julius.         Romberg, Conrad Julius.	.'24 Ag. Eng Terrell         . N 2 Itasca         .'25 AA Pampa         .'25 EE Vernon         .'23 Ag Galveston         .'24 Ag Bartlett         .'23 EE Cameron         .'24 Ag Butlett         .'23 EE Sulphur Springs         .'25 Ag Mart         .'25 Ag Butlett         .'25 Ag Butlett         .'25 Ag Butlett         .'25 ChE Dallas         .'24 ME Holland         N 1
Roberts, Hubert Oscar.         Roberts, Paul Henry.         Roberts, W. Noble.         Roberts, O. Carl Edward.         Robinson, Carl Edward.         Robinson, Corrad A.         Rogers, Archie Clifton.         Rogers, Clinton Charles.         Rogers, Elbert William.         Rogers, Joe Louis.         Rogers, Robert Lee, Jr.         Roll, Glenn Wood.         Romberg, Conrad Julius.         Rome, Maurice Anthony.	.'24 Ag. Eng Terrell         . N 2
Roberts, Hubert Oscar.         Roberts, Paul Henry.         Roberts, W. Noble.         Robertson, Carl Edward.         Robinson, Brittain Bragunier.         Robinson, Conrad A.         Rogers, Archie Clifton.         Rogers, Clinton Charles.         Rogers, Elbert William.         Rogers, Joe Louis.         Rogers, Robert Lee, Jr.         Roll, Glenn Wood.         Romberg, Conrad Julius.         Rome, Maurice Anthony.         Roper, William Nunn.         Berkorgung, Crair	.'24 Ag. Eng Terrell         . N 2
Roberts, Hubert Oscar.         Roberts, Paul Henry.         Roberts, W. Noble.         Robertson, Carl Edward.         Robinson, Brittain Bragunier.         Robinson, Conrad A.         Rogers, Archie Clifton.         Rogers, Clinton Charles.         Rogers, Elbert William.         Rogers, Joe Louis.         Rogers, Joe Louis.         Rogers, Gonrad Julius.         Romberg, Conrad Julius.         Rome, Maurice Anthony.         Roper, William Nunn.         Rosborough, Craig.	.'24 Ag. Eng Terrell         . N 2
Roberts, Hubert Oscar.         Roberts, Paul Henry.         Roberts, W. Noble.         Roberts, Oscar.         Roberts, M. Noble.         Robinson, Carl Edward.         Robinson, Corrad A.         Rogers, Archie Clifton.         Rogers, Clinton Charles.         Rogers, Elbert William         Rogers, Joe Louis.         Rogers, Joe Louis.         Rogers, Robert Lee, Jr.         Roll, Glenn Wood.         Romberg, Conrad Julius.         Rome, Maurice Anthony.         Roper, William Nunn.         Rosborough, James Fears.         Rosborough, Jaines Fears.	.'24 Ag. Eng Terrell         . N 2
Roberts, Hubert Oscar.         Roberts, Paul Henry.         Roberts, W. Noble.         Roberts, O. Carl Edward.         Robinson, Carl Edward.         Robinson, Corrad A.         Rogers, Archie Clifton.         Rogers, Clinton Charles.         Rogers, Elbert William.         Rogers, Joe Louis.         Rogers, Robert Lee, Jr.         Roll, Glenn Wood.         Romberg, Conrad Julius.         Roper, William Nunn.         Rosborough, Craig.         Rosborough, Richard Allen.	.'24 Ag. Eng Terrell         . N 2
Redditt, Thomas Guyton. Reed, Nichols Homer. Reed, Russell Harold. Reedy, Morris. Reedy, Wilson Newton. Reese, Joseph Travis. Reid, Dalton Lee. Reid, Dalton Lee. Reid, Rogers Fullerton. Reitch, Tom Clarence. Remschel, Marvin Henry. Remy, T. P. Renfro, Robert Delmore. Reutzel, Harry Perry. Reynolds, James Milton. Reynolds, Ralph Rodney. Rice, Millard Weaver. Richards, William Boon. Richardson, Alvin Ike. Richardson, David Porter, Jr. Richardson, David Porter, Jr. Richardson, David Porter, Jr. Richardson, Jesse Jewell. Roberts, Herman Lorenza. Roberts, Hubert Oscar. Roberts, Pul Henry. Roberts, W. Noble. Roberts, W. Noble. Roberts, W. Noble. Roberts, W. Noble. Roberts, Selewert William Rogers, Archie Clifton. Rogers, Archie Clifton. Rogers, Joe Louis. Rogers, Joe Louis. Rogers, Joe Louis. Rogers, Conrad Julius. Rome, Maurice Anthony. Robert, William Nunn. Rosborough, Craig. Rosborough, Craig. Rosborough, Richard Allen. Rosborough, Richard Allen. Rosborough, Richard Allen. Rosenberg, Mortimer Lewis.	.'24 Ag. Eng Terrell         . N 2
Roberts, Hubert Oscar.         Roberts, Paul Henry.         Roberts, W. Noble.         Roberts, M. Noble.         Robinson, Carl Edward.         Robinson, Brittain Bragunier.         Robinson, Conrad A.         Rogers, Archie Clifton.         Rogers, Clinton Charles.         Rogers, Elbert William.         Rogers, Joe Louis.         Rogers, Robert Lee, Jr.         Roll, Glenn Wood.         Rome, Maurice Anthony.         Rober, William Nunn.         Rosborough, Craig.         Rosborough, James Fears.         Rosborough, Mortimer Lewis.         Rosenberg, Mortimer Lewis.         Rosenduest, Frits Oscar.	.'24 Ag. Eng Terrell. N 2
Rosenquest, Frits Oscar	.'25 AgCisco
Roberts, Hubert Oscar. Roberts, Paul Henry. Roberts, W. Noble. Roberts, W. Noble. Robertson, Carl Edward. Robinson, Brittain Bragunier. Robinson, Conrad A. Rogers, Archie Clifton. Rogers, Clinton Charles. Rogers, Clinton Charles. Rogers, Elbert William Rogers, Herman Leach. Rogers, Joe Louis. Rogers, Robert Lee, Jr. Roll, Glenn Wood. Romberg, Conrad Julius. Rome, Maurice Anthony. Roper, William Nunn Rosborough, Craig. Rosborough, James Fears. Rosborough, Richard Allen. Rossenquest, Frits Oscar. Ross, Bert Falconer. Ross, Erwin Glen. Ross, Henry. Rounds, Will Arthur Rowland, William Goeble. Royal, Rheutilious Fletcher. Rudd, Joseph Clinton.	.'25 AgCisco

· · · · · · · · · · · · · · · · · · ·			
Ruhmann, Edwin Paul.	.'25 1	EE	. Kenedy
Rummel, Adolph Joseph	.'24 1	EE	.San Antonio
Rush. Henry David	'25 I	Ag	. Marlin
Rutherford Carl Raymond	'25 I	Э́Э	Moody
Rutherford Roger Rives	25	ĀĀ	Dallas
Rutledge Mansel Cyril	Ci	1	Houston
Butledge, Maiser Oym			Houston
Ruhmann, Edwin Paul Rummel, Adolph Joseph Rush, Henry David Rutherford, Carl Raymond Rutherford, Roger Rives Rutledge, Mansel Cyril Rutledge, Oran Melmath	. 02	4	. Houston
Sabacky, Joe	. op.	Ar	. bryan
Salley, Kenneth Clifton	. 25 1	ME	. El Campo
Sandel, John Mickle Sanderlin, Ralph Cecil Sanders, Allison	. <u>C</u> 2	<u></u>	. College Station
Sanderlin, Ralph Cecil	. '25 1	ME	. Electra
Sanders, Allison	.'25 I	Ar	.Waco
Sanders, Sam Houston, Jr	. Sp.	Ag	. Franklin
Sandford, Levings Foster	.'25 1	MĔ	. Monticello. Ark.
Sanguinet, Frank Kemble	25 /	Ar	Fort Worth
Santerre McLeo	24	Aσ	Dallas
Saundorg Harry Morritt	222 1	E E	Greenville
Soundary John Larow	,	Ag Fng	Smithvillo
Saunders, John Marian	C 1	ng. Eng	Planas
Saunders, John Marion	. 01	L	. Blanco
Sawyer, U. L.	. sp.	Ag	. Madisonville
Sawyer, Fred Linton	. 25 1	<u>ЕЕ</u>	. Sherman
Sayers, Philip Edgar	. 25 '	ГЕ	. Houston
Sayers, Ralph Segar	.'25 (	ChE	. Houston
Savles. Charles Murrell	.'25 (	CE	. Abilene
Scales, Robert Henry	'22 (	CE	San Antonio
Scheedel Frank Walter	22 1	ĒĒ	Bay City
Schoofer Edward Hassler	24 0	ChF	San Antonio
Schoofer, Elmo Moleomo	205	Δ	Sahulanhung
Schaefer, Elino Malcome	200 1	កម្ម តច	Schulenburg
Schaeter, Quentin Bryan			
			. Schulenburg
Schaer, Robert	. Sp.	Ag	. Chapel Hill
Schaer, Robert. B. S. A. & M. College of Texas, 1919.	. Sp.	Ag	. Chapel Hill
Schaer, Robert. B. S. A & M. College of Texas, 1919. Schiller, Frank Paul.	. Sp.	Ag	. Chapel Hill . Granger
Schaer, Robert. B. S. A & M. College of Texas, 1919. Schiller, Frank Paul. Schiwetz, David Proctor.	. Sp. .'25 1 .'25 1	Ag EE ME	. Chapel Hill . Granger . Cuero
Schaer, Robert. B. S. A & M. College of Texas, 1919. Schiller, Frank Paul. Schiwetz, David Proctor. Schiwetz, Edward M.	. Sp. .'25 1 .'25 1 .'22 1	Ag EE ME Ar	. Chapel Hill . Granger . Cuero . Cuero
Schaer, Robert. B. S. A & M. College of Texas, 1919. Schiller, Frank Paul. Schiwetz, David Proctor. Schiwetz, Edward M. Schlather, Erich George.	. Sp. .'25 ] .'25 ] .'22 ] .'22 ]	Ag EE ME Ar EE	. Chapel Hill . Granger . Cuero . Cuero . Cibolo
Schaer, Robert. B S, A & M College of Texas, 1919. Schiller, Frank Paul. Schiwetz, David Proctor. Schiwetz, Edward M. Schlather, Erich George. Schmid, Albert D.	. Sp. .'25 ] .'25 ] .'22 ] .'22 ] .'22 ]	Ag EE ME Ar EE CE	. Chapel Hill . Granger . Cuero . Cuero . Cibolo . Brenham
Schaer, Robert. B S, A & M College of Texas, 1919. Schiller, Frank Paul. Schiwetz, David Proctor. Schiwetz, Edward M. Schlather, Erich George. Schmid, Albert D. Schmidt, Fred Raymond.	. Sp. .'25 1 .'25 1 .'22 1 .'22 1 .'22 1 .'22 0 .'25 ( . N 1	Ag EE ME Ar EE CE	. Chapel Hill . Granger . Cuero . Cuero . Cibolo . Brenham . Fort Worth
Sanderin, Kalph Cecil	. Sp. .'25 ] .'25 ] .'22 ] .'22 ] .'22 ] .'25 ( . N 1 .'24 ]	Ag EE ME Ar EE CE Ag	. Chapel Hill . Granger . Cuero . Cuero . Cibolo . Brenham . Fort Worth . Kingsbury
Schaer, Robert B. S. A & M. College of Texas, 1919. Schiller, Frank Paul Schiwetz, David Proctor Schiwetz, Edward M Schlather, Erich George Schmidt, Albert D Schmidt, Fred Raymond Schmidt, George Frank. Schmidt, Herbert Edward	. Sp. .'25 ] .'25 ] .'22 ] .'22 ] .'22 ] .'23 ( . N 1 .'24 ] .'22 ]	Ag EE Ar EE CE Ag EE	. Chapel Hill . Granger . Cuero . Cuero . Cibolo . Brenham . Fort Worth . Kingsbury . Galveston
Schmidt, Herbert Edward	22 1	EE	. Galveston
Schmidt, Herbert Edward	22 1	EE	. Galveston
Schmidt, Herbert Edward	22 1	EE	. Galveston
Schmidt, Herbert Edward	22 1	EE	. Galveston
Schmidt, Herbert Edward	22 1	EE	. Galveston
Schmidt, Herbert Edward	22 1	EE	. Galveston
Schmidt, Herbert Edward	22 1	EE	. Galveston
Schmidt, Herbert Edward	22 1	EE	. Galveston
Schmidt, Herbert Edward	22 1	EE	. Galveston
Schmidt, Herbert Edward	22 1	EE	. Galveston
Schmidt, Herbert Edward	22 1	EE	. Galveston
Schmidt, Herbert Edward	22 1	EE	. Galveston
Schmidt, Herbert Edward	22 1	EE	. Galveston
Schmidt, Herbert Edward	22 1	EE	. Galveston
Schmidt, Herbert Edward	22 1	EE	. Galveston
Schmidt, Herbert Edward	22 1	EE	. Galveston
Schmidt, Herbert Edward	22 1	EE	. Galveston
Schmidt, Herbert Edward	22 1	EE	. Galveston
Schmidt, Herbert Edward	22 1	EE	. Galveston
Schmidt, Herbert Edward	22 1	EE	. Galveston
Schmidt, Herbert Edward	22 1	EE	. Galveston
Schaer, Robert. B. S. A & M. College of Texas, 1919. Schiller, Frank Paul. Schiwetz, David Proctor. Schiwetz, Edward M. Schlather, Erich George. Schmidt, Albert D. Schmidt, Fred Raymond. Schmidt, Fred Raymond. Schmidt, Herbert Edward. Schroeder, Herbert. Schuenemann, Diedrich Hugo. Schuler, Gregory Edward. Schultz, John Frederick. Schulz, John Frederick. Schulze, Ferdinand. Schutze, Ferdinand. Schutze, Elbert Almer. Schwab, Charles T., Jr. Seals, Willie Delma. Seelke, Adolph G. Sellers, Eugene Parramore. Sevenn, John Mack. Sewell, Hubert. Seyle, Samuel Roscoe. Shanks, George W. Sharp, Charles Brightman. Shaver, Edward Chappell. Shaw, Harold Cook. Shaw, Lawrence Edward. Sheffey, Billie Marshall. Sheffield, John Milo, Jr.	22 1	EE	. Galveston

Sheffield, John Stewart.	.'24 MEParis
Shelton, Dixon Bywaters	'25 Ag Paris
Shenneard William Elbert	'25 CE Winnshoro
Sheffield, John Stewart. Shelton, Dixon Bywaters. Sheppeard, William Elbert. Sherman, Robert Miller. Shield, Elgean L. Shields, Fred Maynor. Shifflett, Lacy Bryant. Shook, Earley Melborne. Short, Charles Brandon Short, Leslie Eaves	'24 CF Wago
Sherman, Robert Miner	24 OL Waco
Shield, Elgean L	. 25 OnE Santa Anna
Shields, Fred Maynor	. 23 Ag Trinity
Shifflett, Lacy Bryant	.'23 Ag Marble Falls
Shook. Earley Melborne	.'25 EE Fort Worth
Short, Charles Brandon	'24 Ag Amarillo
Short, Uantes Eaves. Short, Walter Thomas Silvus, Walter Emory Simmons, Forrest Charles Simmons, William Edwin	Sn Ag Bandera
Short Welter Themes	204 Am Silahaa
Short, Walter I nomas	. 24 Ar Slisbee
Silvus, Walter Emory	. 22 EE Dallas
Simmons, Forrest Charles	.'23 EEShreveport, La.
Simmons, William Edwin	.'22 CE Davton
Simon Harold Charles	Sp IE Converse
Simon Stove In	'22 FF Larodo
Simon, Harold Charles. Simon, Steve, Jr. Simpson, Frank Morton. Simpson, Howard B. Simpson, Roger Lawton.	
Simpson, Frank Morton	. 23 ME La Porte
Simpson, Howard B	. 25 CE Gallatin
Simpson, Roger Lawton	.'24 AgDallas
SIMS. U. 1	. OU. AV. FO FASL DEFDARD
Sims, Noel R. Singleton, Foster McMullen	Sn Ag Moheetie
Singleton Foster McMullon	25 FF I uffrin
Singleton, Foster McMunen	
Singleton, Neill	. Sp. EE Luikin
Skains, William Thomas	.'23 AgFranklin
Skelton, Jim Allen	. H 1Brownsville
Skrahanek Raymond Emmett	'25 CE West
Skrahanok, Tommy Joseph	'25 MF Ennis
Smith Charles C	Co Age Threat
Smith, Charles C	. Sp. Ag Irent
Smith, Commodore Olian	. 25 ChE Tampico, Mexico
Smith, Eck	. Sp. Ag. EdBryan
Smith, Euclid M	.'25 EEBonham
Smith, Elbert Vance	'95 A A Dollag
Smith Frank	
	Cl Crockett
Smith Frederick Alphance	. ClCrockett
Smith, Frederick Alphonse	.25 EELufkin .Sp. EELufkin .23 AgFranklin .H 1Brownsville .25 CEWest .25 MEEnnis .Sp. AgTrent .25 ChETampico, Mexico .Sp. Ag. EdBryan .25 EEBonham .25 EEDallas .C 1Crockett .M 1Winona
Smith, Frederick Alphonse Smith, Henry Norman	C 1Crockett M 1Winona C 2Clarksville
Smith, Henry Norman Smith, Harry Sherman	. C 2Clarksville .'24 EEHandley
Smith, Henry Norman Smith, Harry Sherman	. C 2Clarksville .'24 EEHandley
Smith, Henry Norman Smith, Harry Sherman Smith, Ira Eugene	. C 2Clarksville .'24 EEHandley . Sp. AgDewville
Smith, Henry Norman Smith, Harry Sherman Smith, Ira Eugene	. C 2Clarksville .'24 EEHandley . Sp. AgDewville
Smith, Henry Norman Smith, Harry Sherman Smith, Ira Eugene	. C 2Clarksville .'24 EEHandley . Sp. AgDewville
Smith, Henry Norman Smith, Harry Sherman Smith, Ira Eugene	. C 2Clarksville .'24 EEHandley . Sp. AgDewville
Smith, Henry Norman Smith, Harry Sherman Smith, Ira Eugene	. C 2Clarksville .'24 EEHandley . Sp. AgDewville
Smith, Henry Norman Smith, Harry Sherman Smith, Ira Eugene	. C 2Clarksville .'24 EEHandley . Sp. AgDewville
Smith, Henry Norman Smith, Harry Sherman Smith, Ira Eugene	. C 2Clarksville .'24 EEHandley . Sp. AgDewville
Smith, Henry Norman Smith, Harry Sherman Smith, Ira Eugene	. C 2Clarksville .'24 EEHandley . Sp. AgDewville
Smith, Henry Norman Smith, Harry Sherman Smith, Ira Eugene	. C 2Clarksville .'24 EEHandley . Sp. AgDewville
Smith, Henry Norman Smith, Harry Sherman Smith, Ira Eugene	. C 2Clarksville .'24 EEHandley . Sp. AgDewville
Smith, Henry Norman Smith, Harry Sherman Smith, Ira Eugene	. C 2Clarksville .'24 EEHandley . Sp. AgDewville
Smith, Henry Norman Smith, Harry Sherman Smith, Ira Eugene	. C 2Clarksville .'24 EEHandley . Sp. AgDewville
Smith, Henry Norman Smith, Harry Sherman Smith, Ira Eugene	. C 2Clarksville .'24 EEHandley . Sp. AgDewville
Smith, Henry Norman Smith, Harry Sherman Smith, Ira Eugene	. C 2Clarksville .'24 EEHandley . Sp. AgDewville
Smith, Henry Norman Smith, Harry Sherman Smith, Ira Eugene	. C 2Clarksville .'24 EEHandley . Sp. AgDewville
Smith, Henry Norman Smith, Harry Sherman Smith, Ira Eugene	. C 2Clarksville .'24 EEHandley . Sp. AgDewville
Smith, Henry Norman.Smith, Harry Sherman.Smith, Ira EugeneSmith, Jack Ramsey.Smith, Jack Ramsey.Smith, Lee Andrew.Smith, Marlin Rocelius, Jr.Smith, Marlin Rocelius, Jr.Smith, Percy Hilton, Jr.Smith, Ralph Ezra.Smith, Wilburn Kelly.Smith, Willie Ray.Smith, Walter Sidney.Smith, Zay.Smotherman, Macy.Smyth, Leon L.Snead, Edwin Brazelton.Snell, Casbeer.	C 2Clarksville'24 EEHandley'24 EEDewville'24 MEMalakoff'24 MECollege Station'24 CECollege Station'24 MEDallas'24 MECollege Station'24 MECollege Station'24 MECollege Station'24 MECollege Station'24 EECollege Station'25 MESanger'25 CEAlbany'24 ArSan Antonio'25 VMMcKinney'23 ArMart'25 ChEWaco'25 AgLampasas
Smith, Henry Norman.Smith, Harry Sherman.Smith, Ira EugeneSmith, Jack Ramsey.Smith, Jack Ramsey.Smith, Lee Andrew.Smith, Marlin Rocelius, Jr.Smith, Marlin Rocelius, Jr.Smith, Percy Hilton, Jr.Smith, Ralph Ezra.Smith, Wilburn Kelly.Smith, Willie Ray.Smith, Walter Sidney.Smith, Zay.Smotherman, Macy.Smyth, Leon L.Snead, Edwin Brazelton.Snell, Casbeer.	C 2Clarksville'24 EEHandley'24 EEDewville'24 MEMalakoff'24 MECollege Station'24 CECollege Station'24 MEDallas'24 MECollege Station'24 MECollege Station'24 MECollege Station'24 MECollege Station'24 EECollege Station'25 MESanger'25 CEAlbany'24 ArSan Antonio'25 VMMcKinney'23 ArMart'25 ChEWaco'25 AgLampasas
Smith, Henry Norman.Smith, Harry Sherman.Smith, Ira EugeneSmith, Jack Ramsey.Smith, Jack Ramsey.Smith, Lee Andrew.Smith, Marlin Rocelius, Jr.Smith, Marlin Rocelius, Jr.Smith, Percy Hilton, Jr.Smith, Ralph Ezra.Smith, Wilburn Kelly.Smith, Willie Ray.Smith, Walter Sidney.Smith, Zay.Smotherman, Macy.Smyth, Leon L.Snead, Edwin Brazelton.Snell, Casbeer.	C 2Clarksville'24 EEHandley'24 EEDewville'24 MEMalakoff'24 MECollege Station'24 CECollege Station'24 MEDallas'24 MECollege Station'24 MECollege Station'24 MECollege Station'24 MECollege Station'24 EECollege Station'25 MESanger'25 CEAlbany'24 ArSan Antonio'25 VMMcKinney'23 ArMart'25 ChEWaco'25 AgLampasas
Smith, Henry Norman.Smith, Harry Sherman.Smith, Ira EugeneSmith, Jack Ramsey.Smith, Jack Ramsey.Smith, Lee Andrew.Smith, Marlin Rocelius, Jr.Smith, Marlin Rocelius, Jr.Smith, Percy Hilton, Jr.Smith, Ralph Ezra.Smith, Wilburn Kelly.Smith, Willie Ray.Smith, Walter Sidney.Smith, Zay.Smotherman, Macy.Smyth, Leon L.Snead, Edwin Brazelton.Snell, Casbeer.	C 2Clarksville'24 EEHandley'24 EEDewville'24 MEMalakoff'24 MECollege Station'24 CECollege Station'24 MEDallas'24 MECollege Station'24 MECollege Station'24 MECollege Station'24 MECollege Station'24 EECollege Station'25 MESanger'25 CEAlbany'24 ArSan Antonio'25 VMMcKinney'23 ArMart'25 ChEWaco'25 AgLampasas
Smith, Henry Norman.Smith, Harry Sherman.Smith, Ira EugeneSmith, Jack Ramsey.Smith, Jack Ramsey.Smith, Lee Andrew.Smith, Marlin Rocelius, Jr.Smith, Marlin Rocelius, Jr.Smith, Percy Hilton, Jr.Smith, Ralph Ezra.Smith, Wilburn Kelly.Smith, Willie Ray.Smith, Walter Sidney.Smith, Zay.Smotherman, Macy.Smyth, Leon L.Snead, Edwin Brazelton.Snell, Casbeer.	C 2Clarksville'24 EEHandley'24 EEDewville'24 MEMalakoff'24 MECollege Station'24 CECollege Station'24 MEDallas'24 MECollege Station'24 MECollege Station'24 MECollege Station'24 MECollege Station'24 EECollege Station'25 MESanger'25 CEAlbany'24 ArSan Antonio'25 VMMcKinney'23 ArMart'25 ChEWaco'25 AgLampasas
Smith, Henry Norman.Smith, Harry Sherman.Smith, Ira EugeneSmith, Jack Ramsey.Smith, Jack Ramsey.Smith, Lee Andrew.Smith, Marlin Rocelius, Jr.Smith, Marlin Rocelius, Jr.Smith, Percy Hilton, Jr.Smith, Ralph Ezra.Smith, Wilburn Kelly.Smith, Willie Ray.Smith, Walter Sidney.Smith, Zay.Smotherman, Macy.Smyth, Leon L.Snead, Edwin Brazelton.Snell, Casbeer.	C 2Clarksville'24 EEHandley'24 EEDewville'24 MEMalakoff'24 MECollege Station'24 CECollege Station'24 MEDallas'24 MECollege Station'24 MECollege Station'24 MECollege Station'24 MECollege Station'24 EECollege Station'25 MESanger'25 CEAlbany'24 ArSan Antonio'25 VMMcKinney'23 ArMart'25 ChEWaco'25 AgLampasas
Smith, Henry Norman.Smith, Harry Sherman.Smith, Ira EugeneSmith, Jack Ramsey.Smith, Jack Ramsey.Smith, Lee Andrew.Smith, Marlin Rocelius, Jr.Smith, Marlin Rocelius, Jr.Smith, Percy Hilton, Jr.Smith, Ralph Ezra.Smith, Wilburn Kelly.Smith, Willie Ray.Smith, Walter Sidney.Smith, Zay.Smotherman, Macy.Smyth, Leon L.Snead, Edwin Brazelton.Snell, Casbeer.	C 2Clarksville'24 EEHandley'24 EEDewville'24 MEMalakoff'24 MECollege Station'24 CECollege Station'24 MEDallas'24 MECollege Station'24 MECollege Station'24 MECollege Station'24 MECollege Station'24 EECollege Station'25 MESanger'25 CEAlbany'24 ArSan Antonio'25 VMMcKinney'23 ArMart'25 ChEWaco'25 AgLampasas
Smith, Henry Norman.Smith, Harry Sherman.Smith, Ira EugeneSmith, Jack Ramsey.Smith, Jack Ramsey.Smith, Lee Andrew.Smith, Marlin Rocelius, Jr.Smith, Marlin Rocelius, Jr.Smith, Percy Hilton, Jr.Smith, Ralph Ezra.Smith, Wilburn Kelly.Smith, Willie Ray.Smith, Walter Sidney.Smith, Zay.Smotherman, Macy.Smyth, Leon L.Snead, Edwin Brazelton.Snell, Casbeer.	C 2Clarksville'24 EEHandley'24 EEDewville'24 MEMalakoff'24 MECollege Station'24 CECollege Station'24 MEDallas'24 MECollege Station'24 MECollege Station'24 MECollege Station'24 MECollege Station'24 EECollege Station'25 MESanger'25 CEAlbany'24 ArSan Antonio'25 VMMcKinney'23 ArMart'25 ChEWaco'25 AgLampasas
Smith, Henry Norman.Smith, Harry Sherman.Smith, Ira EugeneSmith, Jack Ramsey.Smith, Jack Ramsey.Smith, Lee Andrew.Smith, Marlin Rocelius, Jr.Smith, Marlin Rocelius, Jr.Smith, Percy Hilton, Jr.Smith, Ralph Ezra.Smith, Wilburn Kelly.Smith, Willie Ray.Smith, Walter Sidney.Smith, Zay.Smotherman, Macy.Smyth, Leon L.Snead, Edwin Brazelton.Snell, Casbeer.	C 2Clarksville'24 EEHandley'24 EEDewville'24 MEMalakoff'24 MECollege Station'24 CECollege Station'24 MEDallas'24 MECollege Station'24 MECollege Station'24 MECollege Station'24 MECollege Station'24 EECollege Station'25 MESanger'25 CEAlbany'24 ArSan Antonio'25 VMMcKinney'23 ArMart'25 ChEWaco'25 AgLampasas
Smith, Henry Norman.Smith, Harry Sherman.Smith, Ira EugeneSmith, Jack Ramsey.Smith, Jack Ramsey.Smith, Lee Andrew.Smith, Marlin Rocelius, Jr.Smith, Marlin Rocelius, Jr.Smith, Percy Hilton, Jr.Smith, Ralph Ezra.Smith, Wilburn Kelly.Smith, Willie Ray.Smith, Walter Sidney.Smith, Zay.Smotherman, Macy.Smyth, Leon L.Snead, Edwin Brazelton.Snell, Casbeer.	C 2Clarksville'24 EEHandley'24 EEDewville'24 MEMalakoff'24 MECollege Station'24 CECollege Station'24 MEDallas'24 MECollege Station'24 MECollege Station'24 MECollege Station'24 MECollege Station'24 EECollege Station'25 MESanger'25 CEAlbany'24 ArSan Antonio'25 VMMcKinney'23 ArMart'25 ChEWaco'25 AgLampasas
Smith, Henry Norman Smith, Harry Sherman Smith, Ira Eugene	C 2Clarksville'24 EEHandley'24 EEDewville'24 MEMalakoff'24 MECollege Station'24 CECollege Station'24 MEDallas'24 MECollege Station'24 MECollege Station'24 MECollege Station'24 MECollege Station'24 EECollege Station'25 MESanger'25 CEAlbany'24 ArSan Antonio'25 VMMcKinney'23 ArMart'25 ChEWaco'25 AgLampasas

Spreen, Herbert Frederick	.'22 EEWelcome
Spurger, Stephen H.	. Sp. Ag Marietta
Spreen, Herbert Frederick Spurger, Stephen H. Staats, Corliss Gilbert Stallings, Archie. Stallings, Leonard. Stamps, William Thomas. Stancliff, Thomas Herman Standlee, Dan Graves. Stanford, Maurice Denton Starnes Lass Loo	'25 CE Fort Worth
Stalling Archio	'24 VM Bryon
Stallings, Al Cille	292 AA Drownward
Stallings, Leonard	. 23 AA Brownwood
Stamps, William Thomas	. 23 EE Terrell
Stancliff, Thomas Herman	.'25 MEHouston
Standlee, Dan Graves	'24 ME Handley
Stanford Maurice Denton	'25 Ag Lorena
Stanford, Maurice Denton Starnes, Jasse Lee B.S., A. & M College of Texas, 1918 Stasney, Leon William Steele, Dewitt Durham Steele, Rezin Brinsmade Steele, Rezin Brinsmade Steffens, Lynn David. Steibing, Clarence Christian Stelfox, Staats Reichie Stephens, Governeur Robert Stephens, Ira Alfred. Stephens, Theodore R. Stephenson, Leslie Dean Sterling, Nathe Brooks	Sn Ag Son Antonio
P S A & M College of Torog 1019	. op. Ag San Antonio
Stormon Toon William	204 A A Duran
Stasney, Leon william	. 24 AA Bryan
Steele, Dewitt Durham	. 22 Ag Corpus Christi
Steele, Junius	.'22 EE Marshall
Steele. Rezin Brinsmade	'22 EEHouston
Steffens, Lynn David	'25 Ag Smithville
Steiking Clarence Christian	'22 VM Collogo Station
Stelong, Glarence Onristian	22 VINI
Stellox, Staats Reichle	. 25 Ag Austin
Stephens, Governeur Robert	.'22 CE Mission
Stephens, Ira Alfred	.'24 TESan Antonio
Stephens, Theodore R.	'24 Ag Mission
Stephenson Leslie Dean	'25 FF Dallag
Stopling Nothe Brooks	N.9 ' Dealadala
Sterling, Nathe Brooks	. N Z Rockdale
Stevens, Julian Earl	. N 2 Premont
Stevens, James Kenneth	.'24 ChEPlainview
Stevenson, Homer Eads	'25 EE
Stewart Charles Dickens	'25 EE Hutto
Stewart, Unah Miller	25 FF Corrigana
Stewart, Hugh Miller	
Stewart, Millam Parks	. 22 Ag Kirbyville
Stieneker, Edgar Fred	25 EE Dallas
	ao hhDanas
Stiles, Robert Winfield	.'22 ChESan Diego, Calif.
Stiles, Robert Winfield Stiles, Wendel Arthur	.'22 ChE San Diego, Calif.
Sterling, Nathe Brooks. Stevens, Julian Earl. Stevens, James Kenneth. Stevenson, Homer Eads. Stewart, Charles Dickens. Stewart, Hugh Miller. Stewart, Milam Parks. Stewart, Milam Parks. Sties, Robert Winfield. Stilles, Wendel Arthur. Stillwell Claude D	. 22 ChESan Diego, Calif. . 24 Pre-MedWaco C 1 Detroit
Stiles, Robert Winfield Stiles, Wendel Arthur Stillwell, Claude D Stingon Wright Y	22 ChE San Diego, Calif. 24 Pre-MedWaco C 1Detroit N 2 Winfold
Stiles, Robert Winfield Stiles, Wendel Arthur Stillwell, Claude D Stinson, Wright X.	22 ChE San Diego, Calif. 24 Pre-MedWaco C 1Detroit N 2Winfield
Stinson, Wright X. Stivers, Balph William	N 2 Winfield
Stinson, Wright X. Stivers, Balph William	N 2 Winfield
Stinson, Wright X. Stivers, Balph William	N 2 Winfield
Stinson, Wright X. Stivers, Balph William	N 2 Winfield
Stinson, Wright X. Stivers, Balph William	N 2 Winfield
Stinson, Wright X. Stivers, Balph William	N 2 Winfield
Stinson, Wright X. Stivers, Balph William	N 2 Winfield
Stinson, Wright X. Stivers, Balph William	N 2 Winfield
Stinson, Wright X. Stivers, Balph William	N 2 Winfield
Stinson, Wright X. Stivers, Balph William	N 2 Winfield
Stinson, Wright X. Stivers, Balph William	N 2 Winfield
Stinson, Wright X. Stivers, Balph William	N 2 Winfield
Stinson, Wright X. Stivers, Balph William	N 2 Winfield
Stinson, Wright X. Stivers, Balph William	N 2 Winfield
Stinson, Wright X. Stivers, Balph William	N 2 Winfield
Stinson, Wright X. Stivers, Balph William	N 2 Winfield
Stinson, Wright X. Stivers, Balph William	N 2 Winfield
Stinson, Wright X. Stivers, Balph William	N 2 Winfield
Stinson, Wright X. Stivers, Balph William	N 2 Winfield
Stinson, Wright X. Stivers, Balph William	N 2 Winfield
Stinson, Wright X. Stivers, Balph William	N 2 Winfield
Stinson, Wright X. Stinson, Wright X. Stobaugh, Albert Mayes. Stocks, Aubrey Banks. Stocks, Aubrey Banks. Stone, William Venable. Stoneham, Jack Johnston. Stovall, John Oatis. Strange, John Hansel. Strange, John Rufus. Strange, John Rufus. Strange, Thoma: Ray. Strange, William Thomas, Jr. Straughan, George Ramer. Stribling, Ralph Copeland. Striegler, Richard Hobson. Striegler, Richard Hobson. Striekert, Roy Robert. Stroble, Lois Orland. Struve, Johnnie B., Jr. Stubbeman, Alfred William. Stubbes, Frank Marion, Jr.	N 2 Winfield '25 EE Burkburnett Sp. EE Gainesville C 2 Tankersly '25 AA Holland '25 ME Paris '25 Ag Mt. Calm '22 CE Mart '22 CE Mart '22 Ag Ardmore, Okla. '24 ChE Ardmore, Okla. '25 Ag. Ed Lovelady '24 CE Fredericksburg '24 Ar Brenham '25 Ag Taylor '24 EE Caldwell '24 ME Cuero '25 Ag Robstown '25 Ag Robstown
Stinson, Wright X. Stinson, Wright X. Stobaugh, Albert Mayes. Stocks, Aubrey Banks. Stocks, Aubrey Banks. Stone, William Venable. Stoneham, Jack Johnston. Stovall, John Oatis. Strange, John Hansel. Strange, John Rufus. Strange, John Rufus. Strange, Thoma: Ray. Strange, William Thomas, Jr. Straughan, George Ramer. Stribling, Ralph Copeland. Striegler, Richard Hobson. Striegler, Richard Hobson. Striekert, Roy Robert. Stroble, Lois Orland. Struve, Johnnie B., Jr. Stubbeman, Alfred William. Stubbes, Frank Marion, Jr.	N 2 Winfield '25 EE Burkburnett Sp. EE Gainesville C 2 Tankersly '25 AA Holland '25 ME Paris '25 Ag Mt. Calm '22 CE Mart '22 CE Mart '22 Ag Ardmore, Okla. '24 ChE Ardmore, Okla. '25 Ag. Ed Lovelady '24 CE Fredericksburg '24 Ar Brenham '25 Ag Taylor '24 EE Caldwell '24 ME Cuero '25 Ag Robstown '25 Ag Robstown
Stinson, Wright X. Stinson, Wright X. Stobaugh, Albert Mayes. Stocks, Aubrey Banks. Stocks, Aubrey Banks. Stone, William Venable. Stoneham, Jack Johnston. Stovall, John Oatis. Strange, John Hansel. Strange, John Rufus. Strange, John Rufus. Strange, Thoma: Ray. Strange, William Thomas, Jr. Straughan, George Ramer. Stribling, Ralph Copeland. Striegler, Richard Hobson. Striegler, Richard Hobson. Striekert, Roy Robert. Stroble, Lois Orland. Struve, Johnnie B., Jr. Stubbeman, Alfred William. Stubbes, Frank Marion, Jr.	N 2 Winfield '25 EE Burkburnett Sp. EE Gainesville C 2 Tankersly '25 AA Holland '25 ME Paris '25 Ag Mt. Calm '22 CE Mart '22 CE Mart '22 Ag Ardmore, Okla. '24 ChE Ardmore, Okla. '25 Ag. Ed Lovelady '24 CE Fredericksburg '24 Ar Brenham '25 Ag Taylor '24 EE Caldwell '24 ME Cuero '25 Ag Robstown '25 Ag Robstown
Stinson, Wright X. Stinson, Wright X. Stobaugh, Albert Mayes. Stocks, Aubrey Banks. Stocks, Aubrey Banks. Stone, William Venable. Stoneham, Jack Johnston. Stovall, John Oatis. Strange, John Hansel. Strange, John Rufus. Strange, John Rufus. Strange, Thoma: Ray. Strange, William Thomas, Jr. Straughan, George Ramer. Stribling, Ralph Copeland. Striegler, Richard Hobson. Striegler, Richard Hobson. Striekert, Roy Robert. Stroble, Lois Orland. Struve, Johnnie B., Jr. Stubbeman, Alfred William. Stubbes, Frank Marion, Jr.	N 2 Winfield '25 EE Burkburnett Sp. EE Gainesville C 2 Tankersly '25 AA Holland '25 ME Paris '25 Ag Mt. Calm '22 CE Mart '22 CE Mart '22 Ag Ardmore, Okla. '24 ChE Ardmore, Okla. '25 Ag. Ed Lovelady '24 CE Fredericksburg '24 Ar Brenham '25 Ag Taylor '24 EE Caldwell '24 ME Cuero '25 Ag Robstown '25 Ag Robstown
Stinson, Wright X. Stinson, Wright X. Stobaugh, Albert Mayes. Stocks, Aubrey Banks. Stocks, Aubrey Banks. Stone, William Venable. Stoneham, Jack Johnston. Stovall, John Oatis. Strange, John Hansel. Strange, John Rufus. Strange, John Rufus. Strange, Thoma: Ray. Strange, William Thomas, Jr. Straughan, George Ramer. Stribling, Ralph Copeland. Striegler, Richard Hobson. Striegler, Richard Hobson. Striekert, Roy Robert. Stroble, Lois Orland. Struve, Johnnie B., Jr. Stubbeman, Alfred William. Stubbes, Frank Marion, Jr.	N 2 Winfield '25 EE Burkburnett Sp. EE Gainesville C 2 Tankersly '25 AA Holland '25 ME Paris '25 Ag Mt. Calm '22 CE Mart '22 CE Mart '22 Ag Ardmore, Okla. '24 ChE Ardmore, Okla. '25 Ag. Ed Lovelady '24 CE Fredericksburg '24 Ar Brenham '25 Ag Taylor '24 EE Caldwell '24 ME Cuero '25 Ag Robstown '25 Ag Robstown
Stinson, Wright X. Stinson, Wright X. Stobaugh, Albert Mayes. Stocks, Aubrey Banks. Stocks, Aubrey Banks. Stone, William Venable. Stoneham, Jack Johnston. Stovall, John Oatis. Strange, John Hansel. Strange, John Rufus. Strange, John Rufus. Strange, Thoma: Ray. Strange, William Thomas, Jr. Straughan, George Ramer. Stribling, Ralph Copeland. Striegler, Richard Hobson. Striegler, Richard Hobson. Striekert, Roy Robert. Stroble, Lois Orland. Struve, Johnnie B., Jr. Stubbeman, Alfred William. Stubbes, Frank Marion, Jr.	N 2 Winfield '25 EE Burkburnett Sp. EE Gainesville C 2 Tankersly '25 AA Holland '25 ME Paris '25 Ag Mt. Calm '22 CE Mart '22 CE Mart '22 Ag Ardmore, Okla. '24 ChE Ardmore, Okla. '25 Ag. Ed Lovelady '24 CE Fredericksburg '24 Ar Brenham '25 Ag Taylor '24 EE Caldwell '24 ME Cuero '25 Ag Robstown '25 Ag Robstown
Stinkon, Wright X. Stinkon, Wright X. Stobaugh, Albert Mayes. Stocks, Aubrey Banks. Stone, William Venable. Stoneham, Jack Johnston. Stovall, John Oatis. Strange, John Hansel. Strange, John Rufus. Strange, John Rufus. Strange, Thoma: Ray. Strange, William Thomas, Jr. Straughan, George Ramer. Stribling, Ralph Copeland. Striegler, Richard Hobson. Striegler, Richard Hobson. Striekert, Roy Robert. Stroble, Lois Orland. Struve, Johnnie B., Jr. Stubbeman, Alfred William. Stubbes, Frank Marion, Jr. Stubbes, Frank Marion, Jr. Studeman, Leon Edward. Styner, Pete. Sullivan, Willard Burton Sullivan, Willard Burton Sullivan, Willard Burton Sullivan, Willard Burton	N 2 Winfield '25 EE Burkburnett Sp. EE Gainesville C 2 Tankersly '25 AA Holland '25 ME Paris '25 Ag Mart '22 CE Mart '22 Ag Ardmore, Okla. '22 Ag Ardmore, Okla. '24 CHE Ardmore, Okla. '25 Ag. Ed Lovelady '24 CE Rockdale '23 CE Fredericksburg '24 Ar Brenham '25 Ag Taylor '24 EE Caldwell '24 ME Cuero '25 Ag Hampton, Ark. '25 CE Palestine '25 ME Big Springs '22 Ar Fort Worth '25 Pre-Med Nacogdoches
Stinkon, Wright X. Stinkon, Wright X. Stobaugh, Albert Mayes. Stocks, Aubrey Banks. Stone, William Venable. Stoneham, Jack Johnston. Stovall, John Oatis. Strange, John Hansel. Strange, John Rufus. Strange, John Rufus. Strange, Thoma: Ray. Strange, William Thomas, Jr. Straughan, George Ramer. Stribling, Ralph Copeland. Striegler, Richard Hobson. Striegler, Richard Hobson. Striekert, Roy Robert. Stroble, Lois Orland. Struve, Johnnie B., Jr. Stubbeman, Alfred William. Stubbes, Frank Marion, Jr. Stubbes, Frank Marion, Jr. Studeman, Leon Edward. Styner, Pete. Sullivan, Willard Burton Sullivan, Willard Burton Sullivan, Willard Burton Sullivan, Willard Burton	N 2 Winfield '25 EE Burkburnett Sp. EE Gainesville C 2 Tankersly '25 AA Holland '25 ME Paris '25 Ag Mart '22 CE Mart '22 Ag Ardmore, Okla. '22 Ag Ardmore, Okla. '24 CHE Ardmore, Okla. '25 Ag. Ed Lovelady '24 CE Rockdale '23 CE Fredericksburg '24 Ar Brenham '25 Ag Taylor '24 EE Caldwell '24 ME Cuero '25 Ag Hampton, Ark. '25 CE Palestine '25 ME Big Springs '22 Ar Fort Worth '25 Pre-Med Nacogdoches
Stinson, Wright X. Stinson, Wright X. Stobaugh, Albert Mayes. Stocks, Aubrey Banks. Stone, William Venable. Stoneham, Jack Johnston. Stovall, John Oatis. Strange, John Hansel. Strange, John Rufus. Strange, John Rufus. Strange, Thoma: Ray. Strange, William Thomas, Jr. Straughan, George Ramer. Stribling, Ralph Copeland. Striegler, Richard Hobson. Striegler, Richard Hobson. Striekert, Roy Robert. Stroble, Lois Orland. Struve, Johnnie B., Jr. Stubbeman, Alfred William. Stubbes, Frank Marion, Jr.	N 2 Winfield '25 EE Burkburnett Sp. EE Gainesville C 2 Tankersly '25 AA Holland '25 ME Paris '25 Ag Mart '22 CE Mart '22 Ag Ardmore, Okla. '22 Ag Ardmore, Okla. '24 CHE Ardmore, Okla. '25 Ag. Ed Lovelady '24 CE Rockdale '23 CE Fredericksburg '24 Ar Brenham '25 Ag Taylor '24 EE Caldwell '24 ME Cuero '25 Ag Hampton, Ark. '25 CE Palestine '25 ME Big Springs '22 Ar Fort Worth '25 Pre-Med Nacogdoches

Sweatman, Lennie E	'25 A a	Fnnig
	. 40 Ag	· · Emms
Syler, Cicero Roper	. C 2	Winters
Syler, Cicero Roper Sylvester, John Willie	. Sp. Ag	Brvan
	10 ( 1313	13 / 117 /1
Taber, Theron Simon, Jr	. 24 EE	Fort Worth
Tadlock, Carter M	Sp. Ag.	Timpson
Tellmon Bollie Jefferson	Sp Ag	Polytochnic
	. op. Ag	I ory technic
Tankersley, Edward Jackson	. 24 CE	Maria
Tadlock, Carter M	.'25 AA	. Marble Falls
Tatum Herbert Madison	'24 Ar	Dollag
	24 AL	
Taylor, Alonzo Clason	. 24 CE	Fort worth
Taylor, Edward Wyllys, Jr.	.'23 ChE	. Houston
Taylor Francis Grant	'23 TE	Wago
Taylor, Tlancis Gland	205 01 15	Galaman
Laylor, Glenn Evereth	. 25 UnE	Coleman
Taylor, Jesse L.	. Sp. CE	. Bolivar, Mo.
Tenney Roh Paul Warfield	'24 CE	Rusk
Wommer Obserter W	24 OB	Deller
Taylor, Jesse L. Tenney, Rob Paul Warfield Terry, Chester W. Terry, James Christopher Terry, Jay Gordon.	. 24 CE	Dallas
Terry, James Christopher	.'24 TE	St. Louis, Mo.
Terry Jay Gordon	'25 ME	Denison
Terry, Joe Hensley. Thacker, Richard Bradley, Jr.	C 1	Ililahana
Terry, soe mensiey		HIIISDOFO
Thacker, Richard Bradley, Jr	.'25 EE	Houston
Thignen James Young	Sn Ag	Daingerfield
Thomas Charles Wright	200 CL E	La Crango
I nomas, Charles wright	. 22 Und	. La Grange
Thomas, Ira Lee, Jr	.'25 CE	Alexandria, La.
Thomas, Roderic Bruce	'22 CE	Dallas
Thomas Dalph Degara	Sp Ag Ed	Morfo
Thomas, Naiph Rogers	. op. Ag. Eu.	Wialia
Thomason, Gordon Randolph	.'25 ChE	Waco
Thompson, Ben Claude	.'23 Ag.	Brady
Thompson Harry Witford	'22 TE	Hubbard
Thompson, Harry Whiterd		
Thompson, Iven Weller	.'24 Ag	San Angelo
Thompson, Iven Weller Thompson, Othman Clarence	.'24 Ag .'22 ChE	San Angelo Polvtechnic
Thompson, Iven Weller Thompson, Othman Clarence Thompson, Webster Jones	.'24 Ag .'22 ChE '25 Ag	San Angelo Polytechnic Hebbronyille
Thompson, Iven Weller Thompson, Othman Clarence Thompson, Webster Jones	.'24 Ag .'22 ChE .'25 Ag	San Angelo Polytechnic Hebbronville
Thompson, Iven Weller Thompson, Othman Clarence Thompson, Webster Jones Thorn, Carl Marion	.'24 Ag .'22 ChE .'25 Ag .'25 EE	San Angelo Polytechnic Hebbronville Fort Worth
Thacker, Richard Bradley, Jr. Thigpen, James Young. Thomas, Charles Wright. Thomas, Ira Lee, Jr. Thomas, Roderic Bruce. Thomas, Ralph Rogers. Thomason, Gordon Randolph. Thompson, Ben Claude. Thompson, Harry Witford. Thompson, Iven Weller. Thompson, Othman Clarence. Thompson, Webster Jones. Thorn, Carl Marion. Thornton, Odis Newton.	.'24 Ag .'22 ChE .'25 Ag .'25 EE . Sp. Ag	San Angelo Polytechnic Hebbronville Fort <sup>.</sup> Worth De Kalb
Thompson, Iven Weller Thompson, Othman Clarence Thompson, Webster Jones Thorn, Carl Marion Thornton, Odis Newton Threadeill. Arthur Read	.'24 Ag .'22 ChE .'25 Ag .'25 EE . Sp. Ag '25 Ar	San Angelo Polytechnic Hebbronville Fort Worth De Kalb Marlin
Thompson, Iven Weller Thompson, Othman Clarence Thompson, Webster Jones Thorn, Carl Marion Thornton, Odis Newton Threadgill, Arthur Read Thurmord Milam Fuenk	.'24 Ag .'22 ChE .'25 Ag .'25 EE . Sp. Ag .'25 Ar	San Angelo Polytechnic Hebbronville Fort Worth De Kalb Marlin Ouenab
Thompson, Iven Weller Thompson, Othman Clarence Thompson, Webster Jones Thorn, Carl Marion Thornton, Odis Newton Threadgill, Arthur Read Thurmond, Milam Frank	.'24 Ag. .'22 ChE .'25 Ag .'25 EE. . Sp. Ag .'25 Ar .'22 Ag. Ed	San Angelo Polytechnic Hebbronville Fort: Worth De Kalb Marlin Quanah
Threadgill, Arthur Read Thurmond, Milam Frank Tickle, Harper Franklin	.'25 Ar .'22 Ag. Ed .'25 Ag	Marlin Quanah Dallas
Threadgill, Arthur Read Thurmond, Milam Frank Tickle, Harper Franklin	.'25 Ar .'22 Ag. Ed .'25 Ag	Marlin Quanah Dallas
Threadgill, Arthur Read Thurmond, Milam Frank Tickle, Harper Franklin	.'25 Ar .'22 Ag. Ed .'25 Ag	Marlin Quanah Dallas
Threadgill, Arthur Read Thurmond, Milam Frank Tickle, Harper Franklin	.'25 Ar .'22 Ag. Ed .'25 Ag	Marlin Quanah Dallas
Threadgill, Arthur Read Thurmond, Milam Frank Tickle, Harper Franklin	.'25 Ar .'22 Ag. Ed .'25 Ag	Marlin Quanah Dallas
Threadgill, Arthur Read Thurmond, Milam Frank Tickle, Harper Franklin	.'25 Ar .'22 Ag. Ed .'25 Ag	Marlin Quanah Dallas
Threadgill, Arthur Read Thurmond, Milam Frank Tickle, Harper Franklin	.'25 Ar .'22 Ag. Ed .'25 Ag	Marlin Quanah Dallas
Threadgill, Arthur Read Thurmond, Milam Frank Tickle, Harper Franklin	.'25 Ar .'22 Ag. Ed .'25 Ag	Marlin Quanah Dallas
Threadgill, Arthur Read Thurmond, Milam Frank Tickle, Harper Franklin	.'25 Ar .'22 Ag. Ed .'25 Ag	Marlin Quanah Dallas
Threadgill, Arthur Read Thurmond, Milam Frank Tickle, Harper Franklin	.'25 Ar .'22 Ag. Ed .'25 Ag	Marlin Quanah Dallas
Threadgill, Arthur Read Thurmond, Milam Frank Tickle, Harper Franklin	.'25 Ar .'22 Ag. Ed .'25 Ag	Marlin Quanah Dallas
Threadgill, Arthur Read Thurmond, Milam Frank Tickle, Harper Franklin	.'25 Ar .'22 Ag. Ed .'25 Ag	Marlin Quanah Dallas
Threadgill, Arthur Read Thurmond, Milam Frank Tickle, Harper Franklin	.'25 Ar .'22 Ag. Ed .'25 Ag	Marlin Quanah Dallas
Threadgill, Arthur Read Thurmond, Milam Frank Tickle, Harper Franklin	.'25 Ar .'22 Ag. Ed .'25 Ag	Marlin Quanah Dallas
Threadgill, Arthur Read Thurmond, Milam Frank Tickle, Harper Franklin	.'25 Ar .'22 Ag. Ed .'25 Ag	Marlin Quanah Dallas
Threadgill, Arthur Read Thurmond, Milam Frank Tickle, Harper Franklin	.'25 Ar .'22 Ag. Ed .'25 Ag	Marlin Quanah Dallas
Threadgill, Arthur Read Thurmond, Milam Frank Tickle, Harper Franklin	.'25 Ar .'22 Ag. Ed .'25 Ag	Marlin Quanah Dallas
Threadgill, Arthur Read Thurmond, Milam Frank Tickle, Harper Franklin	.'25 Ar .'22 Ag. Ed .'25 Ag	Marlin Quanah Dallas
Threadgill, Arthur Read Thurmond, Milam Frank Tickle, Harper Franklin	.'25 Ar .'22 Ag. Ed .'25 Ag	Marlin Quanah Dallas
Threadgill, Arthur Read Thurmond, Milam Frank Tickle, Harper Franklin	.'25 Ar .'22 Ag. Ed .'25 Ag	Marlin Quanah Dallas
Threadgill, Arthur Read Thurmond, Milam Frank Tickle, Harper Franklin	.'25 Ar .'22 Ag. Ed .'25 Ag	Marlin Quanah Dallas
Threadgill, Arthur Read Thurmond, Milam Frank Tickle, Harper Franklin	.'25 Ar .'22 Ag. Ed .'25 Ag	Marlin Quanah Dallas
Threadgill, Arthur Read Thurmond, Milam Frank Tickle, Harper Franklin	.'25 Ar .'22 Ag. Ed .'25 Ag	Marlin Quanah Dallas
Threadgill, Arthur Read. Thurmond, Milam Frank. Tickle, Harper Franklin. Tiemann, Edwin Fritz. Tindall, Lovel Bishop. Tiner, Wayne Darwin Tippitt, Robert Ray. Tobin, Byron Eugene. Todd, Belden Wilmer. Tolle, John Francis. Tolson, William Arthur. Tomlinson, Albert Lee. Tomlinson, John Bine. Tompkins, James Franklin. Tompkins, William Mounts. Torer, Sylvan Morris. Torient, W. C., Jr Torian, Albert Halbert. Tosch, Fred Lee. Tracy, Percy Lee. Trant Loshua Samuel	<ul> <li>'25 Ar'22 Ag. Ed'25 Ag'22 ME'22 ME'23 CE'23 CE'23 ME'25 EE'25 EE'23 EE'23 CE'25 AA'25 AA'22 CE'25 AA'25 AA</li></ul>	. Marlin . Quanah . Dallas . La Grange . Fostoria . Uvalde . Alpine . Pilot Point . Houston . San Antonio . Sherwood . Marlin . Denton . Corpus Christi . Austin . Waco . Waco . Dallas . Houston Lola
Threadgill, Arthur Read. Thurmond, Milam Frank. Tickle, Harper Franklin. Tiemann, Edwin Fritz. Tindall, Lovel Bishop. Tiner, Wayne Darwin Tippitt, Robert Ray. Tobin, Byron Eugene. Todd, Belden Wilmer. Tolle, John Francis. Tolson, William Arthur. Tomlinson, Albert Lee. Tomlinson, John Bine. Tompkins, James Franklin. Tompkins, William Mounts. Torer, Sylvan Morris. Torient, W. C., Jr Torian, Albert Halbert. Tosch, Fred Lee. Tracy, Percy Lee. Trant Loshua Samuel	<ul> <li>'25 Ar'22 Ag. Ed'25 Ag'22 ME'22 ME'23 CE'23 CE'23 ME'25 EE'25 EE'23 EE'23 CE'25 AA'25 AA'22 CE'25 AA'25 AA</li></ul>	. Marlin . Quanah . Dallas . La Grange . Fostoria . Uvalde . Alpine . Pilot Point . Houston . San Antonio . Sherwood . Marlin . Denton . Corpus Christi . Austin . Waco . Waco . Dallas . Houston Lola
Threadgill, Arthur Read. Thurmond, Milam Frank. Tickle, Harper Franklin. Tiemann, Edwin Fritz. Tindall, Lovel Bishop. Tiner, Wayne Darwin Tippitt, Robert Ray. Tobin, Byron Eugene. Todd, Belden Wilmer. Tolle, John Francis. Tolson, William Arthur. Tomlinson, Albert Lee. Tomlinson, John Bine. Tompkins, James Franklin. Tompkins, William Mounts. Torer, Sylvan Morris. Torient, W. C., Jr Torian, Albert Halbert. Tosch, Fred Lee. Tracy, Percy Lee. Trant Loshua Samuel	<ul> <li>'25 Ar'22 Ag. Ed'25 Ag'22 ME'22 ME'23 CE'23 CE'23 ME'25 EE'25 EE'23 EE'23 CE'25 AA'25 AA'22 CE'25 AA'25 AA</li></ul>	. Marlin . Quanah . Dallas . La Grange . Fostoria . Uvalde . Alpine . Pilot Point . Houston . San Antonio . Sherwood . Marlin . Denton . Corpus Christi . Austin . Waco . Waco . Dallas . Houston Lola
Threadgill, Arthur Read. Thurmond, Milam Frank. Tickle, Harper Franklin. Tiemann, Edwin Fritz. Tindall, Lovel Bishop. Tiner, Wayne Darwin Tippitt, Robert Ray. Tobin, Byron Eugene. Todd, Belden Wilmer. Tolle, John Francis. Tolson, William Arthur. Tomlinson, Albert Lee. Tomlinson, John Bine. Tompkins, James Franklin. Tompkins, William Mounts. Torer, Sylvan Morris. Torient, W. C., Jr Torian, Albert Halbert. Tosch, Fred Lee. Tracy, Percy Lee. Trant Loshua Samuel	<ul> <li>'25 Ar'22 Ag. Ed'25 Ag'22 ME'22 ME'23 CE'23 CE'23 ME'25 EE'25 EE'23 EE'23 CE'25 AA'25 AA'22 CE'25 AA'25 AA</li></ul>	. Marlin . Quanah . Dallas . La Grange . Fostoria . Uvalde . Alpine . Pilot Point . Houston . San Antonio . Sherwood . Marlin . Denton . Corpus Christi . Austin . Waco . Waco . Dallas . Houston Lola
Threadgill, Arthur Read. Thurmond, Milam Frank. Tickle, Harper Franklin. Tiemann, Edwin Fritz. Tindall, Lovel Bishop. Tiner, Wayne Darwin Tippitt, Robert Ray. Tobin, Byron Eugene. Todd, Belden Wilmer. Tolle, John Francis. Tolson, William Arthur. Tomlinson, Albert Lee. Tomlinson, John Bine. Tompkins, James Franklin. Tompkins, William Mounts. Torer, Sylvan Morris. Torient, W. C., Jr Torian, Albert Halbert. Tosch, Fred Lee. Tracy, Percy Lee. Trant Loshua Samuel	<ul> <li>'25 Ar'22 Ag. Ed'25 Ag'22 ME'22 ME'23 CE'23 CE'23 ME'25 EE'25 EE'23 EE'23 CE'25 AA'25 AA'22 CE'25 AA'25 AA</li></ul>	. Marlin . Quanah . Dallas . La Grange . Fostoria . Uvalde . Alpine . Pilot Point . Houston . San Antonio . Sherwood . Marlin . Denton . Corpus Christi . Austin . Waco . Waco . Dallas . Houston Lola
Threadgill, Arthur Read. Thurmond, Milam Frank. Tickle, Harper Franklin. Tiemann, Edwin Fritz. Tindall, Lovel Bishop. Tiner, Wayne Darwin Tippitt, Robert Ray. Tobin, Byron Eugene. Todd, Belden Wilmer. Tolle, John Francis. Tolson, William Arthur. Tomlinson, Albert Lee. Tomlinson, John Bine. Tompkins, James Franklin. Tompkins, William Mounts. Torer, Sylvan Morris. Torient, W. C., Jr Torian, Albert Halbert. Tosch, Fred Lee. Tracy, Percy Lee. Trant Loshua Samuel	<ul> <li>'25 Ar'22 Ag. Ed'25 Ag'22 ME'22 ME'23 CE'23 CE'23 ME'25 EE'25 EE'23 EE'23 CE'25 AA'25 AA'22 CE'25 AA'25 AA</li></ul>	. Marlin . Quanah . Dallas . La Grange . Fostoria . Uvalde . Alpine . Pilot Point . Houston . San Antonio . Sherwood . Marlin . Denton . Corpus Christi . Austin . Waco . Waco . Dallas . Houston Lola
Threadgill, Arthur Read. Thurmond, Milam Frank. Tickle, Harper Franklin. Tiemann, Edwin Fritz. Tindall, Lovel Bishop. Tiner, Wayne Darwin Tippitt, Robert Ray. Tobin, Byron Eugene. Todd, Belden Wilmer. Tolle, John Francis. Tolson, William Arthur. Tomlinson, Albert Lee. Tomlinson, John Bine. Tompkins, James Franklin. Tompkins, William Mounts. Torer, Sylvan Morris. Torient, W. C., Jr Torian, Albert Halbert. Tosch, Fred Lee. Tracy, Percy Lee. Trant Loshua Samuel	<ul> <li>'25 Ar'22 Ag. Ed'25 Ag'22 ME'22 ME'23 CE'23 CE'23 ME'25 EE'25 EE'23 EE'23 CE'25 AA'25 AA'22 CE'25 AA'25 AA</li></ul>	. Marlin . Quanah . Dallas . La Grange . Fostoria . Uvalde . Alpine . Pilot Point . Houston . San Antonio . Sherwood . Marlin . Denton . Corpus Christi . Austin . Waco . Waco . Dallas . Houston Lola
Threadgill, Arthur Read Thurmond, Milam Frank Tickle, Harper Franklin	<ul> <li>'25 Ar'22 Ag. Ed'25 Ag'22 ME'22 ME'23 CE'23 CE'23 ME'25 EE'25 EE'23 EE'23 CE'25 AA'25 AA'22 CE'25 AA'25 AA</li></ul>	. Marlin . Quanah . Dallas . La Grange . Fostoria . Uvalde . Alpine . Pilot Point . Houston . San Antonio . Sherwood . Marlin . Denton . Corpus Christi . Austin . Waco . Waco . Dallas . Houston Lola

.

Trigg, CarllJack. Trim, Walter. Troeger, John Henry. Tucker, Bert Raab. Tucker, Hyden Lidell. Tucker, Joseph Claude. Tumlinson, John Clinton. Turman, Walter Wilburn Turner, Dixon Leland. Turner, Harvey Randolph. Turner, Norman Henry. Turner, Nathaniel Parker, Jr. Turner, Virgil Lamont. Turney, Charles Marion.	24 CE Marshall Sp. Ag Lewisville 25 Ar Smithville
Ulbrich, Chauncey Pierpont	24 ME Hondo N 1 Wichita Falls 25 ME Denton
Valdez, Rafael. Valentine, Charles Howard. Van Horn, Richard Martel. Van Tuyl, Andrew J. Vaughan, Robert Givens. Vaughan, Virgil V. Voges, Walter Richard. Vogt, Emil. Vondy, Andrew.	Sp. ChEGuayaquil, Ecuador25 AgPalestine25 ArFort Worth22 AgFort Worth24 CEWacoC 1Poth25 CESchulenburg25 ArCorsicana
Wade, Wallis John	25 Ar.San AntonioC 2.Fort WorthSp. ME.Medford, Mass.23 CE.Tyler25 AA.New Baden23 EE.Crystal City24 EE.San Antonio25 CE.Omaha25 CE.San Antonio25 E.San Antonio25 EE.San Antonio25 EE.San Antonio25 EE.San Antonio25 A.Pernambuco, Brazil25 EE.Winnsboro25 AA.Waco24 EE.Georgetown24 Ar.Dallas
Ware, Charles Somerville. Ware, Roy. Warren, Homer Clay. Warren, John David. Washburn, Paul Jones. Waters, Royce Henry. Watson, Andrew. Watson, John William. Watson, Lloyd Raymond. Waugh, Charles Alden. Weaks, Wesley Dale. Weaver, Leo Lorraine. Webb, Clyde A., Jr. Webb, Charles Marcus. Webb, Ernest. Webb, Joe.	25 Ag.Hewitt25 CE.Heyworth, Ill.25 AA.Lubbock24 AA.Eagle Pass25 AA.Mart35 ME.San Antonio25 ME.Dalhart23 ME.Navasota25 ME.San Antonio25 ME.San Antonio25 ME.San Antonio25 ME.San Antonio26 ME.San Antonio27 ME.San Antonio28 ME.San Antonio29 ME.San Antonio23 ME.San Antonio25 E.C.San Antonio

-

Webber, Absalom Theodore	22	ME	. Freeport
Webber, John Daniel	25	Ag	. Houston
Webber, Absalom Theodore Webber, John Daniel. Weber, Carl Webster, Daniel Horner Weddell, W. C. Weed, William Franklin. Wehrman, Clarence Reginald. Weinberg, Herbert Lee. Weinfield, Milton. Weisr, William Calvin. Weisbrich, Rudolph August. Weise, Adolph V Welch, Lewis Marion. Wendle, Kenneth Stuart.	23	Ar	. Comfort
Webster, Daniel Horner	'22	EE	San Antonio
Weddell W C	'25	Ag	San Angelo
Weed William Franklin	25	ME	Beaumont
Webrman Clarance Roginald	,95	ME	Bronhom
Weinham, Uarbart Loo	,59	ME	Uouston
Weinberg, Herbert Lee	20	Dro Mod	San Antonia
Weinneid, Militon	20	rre-mea	. San Antonio
Weir, William Calvin	23	Ag	. Georgetown
Weisbrich, Rudolph August	22	EE	.San Antonio
Weise, Adolph V	23	ME	.San Antonio
Welch, Lewis Marion	24	EE:	.Voth
Wendle, Kenneth Stuart	Sp	. EE	.Boerne
Wendler, Walter Hugh	$2\overline{5}$	EE	. Boerne
Wendle, Kenneth Stuart. Wendler, Walter Hugh. Wendt, Frank Thomas. Werner, Richard Joseph. West, Albert Washington, Jr.	'22	Ag	.Sherman
Werner, Richard Joseph	'25	CE	San Antonio
West Albert Washington Jr	24	ĂĂ	Ilvalde
Wostbrook Charles Alexander	Ĉ	1	Waaa
Westbrook, Onaries Alexander	205	1	Tomono
Westprook, Moses Strong	20	Ag	. Lorena
Westmoreland, Cecil Sylvester	20	EE	. waco
Weyland, Otto Paul.	23	ME	. Tait
Whatley, George Aldridge	25	EE	. Calvert
Wheeldon, Harry	22	ChE	. Big Springs
Wheeler, Dudley Bailey	'24	ME	.Fort Worth
Wheeler, Joe Weldon	'25	AA	. Gilmer
Whelan, Daniel Edmond	'25	CE	Jefferson
White Robert Frazier	24	CE	Houston
White Robert Graves	25	CE	Tyler
White Bussell Grant	25	CE	San Antonio
White Todd Postor	N	1	Tomplo
West, Albert Washington, Jr West, Albert Washington, Jr Westbrook, Charles Alexander Westbrook, Moses Strong Westmoreland, Cecil Sylvester Weyland, Otto Paul Whatley, George Aldridge Wheeler, Joe Weldon Wheeler, Joe Weldon Wheeler, Joe Weldon Wheeler, Joe Weldon Wheeler, Joe Weldon White, Robert Frazier White, Robert Frazier White, Robert Graves White, Robert Graves White, Robert Graves White, Todd Rector White, Todd Rector Whitehouse, Ben Whitson, Hulen V Wible, Doud Jordan Wilcox, George B Wilder, John Wesley Wilkerson, William Wadsworth Wilkins, Claude Alexander	101	1	Claburna
Whitehouse, Den	24	Ag	. Cleburne
whitsett, Silver	24	Ag	. Crystal City
Whitson, Hulen V	25	ME	. Weatherford
Wible, Doud Jordan	25	CnE	.Oglesby
Wilcox, George B.	23	Ag. Ed	. College Station
Wilder, John Wesley	'24	Ar	. North Pleasanton
Wilkerson, William Wadsworth	'24	CE	. Hearne
Wilkins, Claude Alexander Willard, Herbert Bernley Willett, Eldon R Williams, Carlton Albert.	Sp	. Ag. Ed	. Leesville
Willard, Herbert Bernley	22	ChĔ	Port Arthur
Willett, Eldon R	25	År	Thurber
Williams Carlton Albert	25	Aσ	Avoca
Williams Cincinnattis Lamar	Sn	Åø.	Talna
Williams Charles Wesley	191	CE	Dallag
Williams, Coorgo Davis	105	ME	Fort Worth
Williams, George Davis	20	MIL	
Williams, Louis Harold	20	EE	. nenderson
Williams, Loyd Thomas	23	EE	Elizabeth, La.
Williams, Robert B.	23	CE	Albany
Williams, Robert Nunn	'25	ChE	. Galveston
Williams, Urbane Marvin	Sp	. Ag	. Paris
Williams, William Howell, Jr.	22	ChE	. Houston
Willig, Gerhard Emil.	25	IE	. Temple
Willis. Claude Channing.	'22	Ag	Whitewright
Willis, William Hubert	24	Ag. Eng	Bryan
Wilson Cecil Calvert	24	A A	Itasca
Wilson Charles Orelsby	25	Pro-Mod	Nevesote
Wilson Fatill Arnold	20	Ag Eng	Toopord
Wilson Horoco Forl	244	LE	Whenton
Wilson, Dichard O	40	· III	. wharton
Williams, Carlton Albert.         Williams, Cincinnattis Lamar.         Williams, Charles Wesley.         Williams, Charles Wesley.         Williams, George Davis.         Williams, Louis Harold.         Williams, Louis Harold.         Williams, Robert B.         Williams, Robert B.         Williams, Robert Nunn.         Williams, Urbane Marvin.         Williams, William Howell, Jr.         Willis, Gerhard Emil.         Willis, Claude Channing.         Willis, Claude Channing.         Willis, Claude Channing.         Willison, Cecil Calvert.         Wilson, Charles Ogelsby.         Wilson, Estill Arnold.         Wilson, Richard O.         Wilson, Ray Wallace.	24	UEI	Coleman
wilson, Kay wallace	25	Ag	. McKinney

Wilson, Robert Winston	'25	CE	McKinney
Wilson, Stewart Nolan	N	1	Brvan
Wilson Thomas Fred	191	TE	Honey Grove
Wilson William Baker	25	ĈĒ	Kemp
Wilson, William Baker Winchester, Clarence Leroy Winckler, William Henry	25	vм	Texarkana Ark
Winckler William Henry	25	ME	San Antonio
Winn, William Edward	199	ChE	Dallag
Wise, Robert Chisholm	25	ME	Alico
Woiton, John Benjamin	25	CE	Bryan
Wolfe George Clifton	·95	( ) H)	Hort Worth
Women's Homer Flhert	199	Δα	Corpus Christi
Wood Charles Debort	20	лу СГ	Honoy Grovo
Wonack, Homer Elbert. Wood, Charles Robert. Wood, Gaston Milling. Wood, Langston Herschel.	105		Athong
Wood Longston Horsehol	109	AA	Uondorgon
Wood Stophon Henndon	40	Ar	Burlegen
Wood, Stephen Herndon.	, op	. Ag	Durleson
Woodall, Isidore Ormond	20		En Danita
Woods, William Woolsey, Vernon Gems Works, Maurice Milton	200	AA	San Denito
Woolsey, vernon Gems	22	Ag	Bay City
Works, Maurice Milton	22	<b>UE</b>	Amarillo
Worsham, Joseph Luster	. Sp	. Ag	Bryan
Wright, Asa Upton	25	CE	Jenerson
Wright, Clarence John, Jr	23	CE	Houston
Wright, Samuel Robert	22	ĊЕ	Weatherford
Wupperman, Richard Otto	. 22	Ag	Seguin
Wright, Samuel Robert. Wupperman, Richard Otto. Wurzbach, Alvin Julius. Wurzbach, William Agustus. Wyche, Robert Hiram. Wyche, William Mitchell.	C	2	San Antonio
Wurzbach, William Agustus	. 25	Ag	San Antonio
Wyche, Robert Hiram	.'25	Ag	Riesel
Wyche, William Mitchell	.'24	EE	Haskell
Wyly, James John, Jr	.'22	EE	Fort Worth
	101	CT.	41 1
Yarbrough, Riley Egbert	. 24	UE	Alexander
Yater, John Allen	. 22	ME	Cleburne
Young, Edley Uriel Young, William Keeran Youngs, Walter Charles, Jr	. 25	Ar	Denton
Young, William Keeran	. 23	AA	Laredo
Youngs, Walter Charles, Jr	. 25	CE	Livingston
Zachry, Henry Barten	· 44	UU	Dellingen
Zappe, Oscar Otto	· 40	A	Magon
Zachry, Henry Bartell Zappe, Oscar Otto Zesch, William Harold Zimmerman, Percy Edward	· 40	Ang	Colomon
Zimmerman, rercy Edward	. 40	AI	Olieman

# SPECIAL COURSE IN COTTON CLASSING FOR FEDERAL STUDENTS

Banta, Milton WilliamWetumka, Okla.Bonham, Vaughn EidonSallisaw, Okla.Brantley, Arnold LivingstonWindomCaffey, John TAnsonCampbell, Roscoe MWister, Okla.Carlile, ArthurSallisaw, Okla.Charlie BrittenSallisaw, Okla.Childress, Kutledge BBoydChildress, Robert COre CityDardian, UlrichVille Platte, La.Gargus, Dee ArmonTrentHicks, Everett VivianSavoyHumason, Guerdon WesleyGresham, OregonHunnicutt, Robin WinfieldMarlinJames, Paul ErwinMangum, Okla.
Hunnicutt, Robin WinfieldMarlin
James, Paul Erwin Okla.
Jones, Frank Stanton
Lang, Roy TilfordRusk
McCall, Frank RobertPartia, Ark.

McCarter, John Ernest
McConnell, Willie ByronBryan
McCormick, William WallaceCuero
Myers, LewisBridgeport
Newell, George RobertNixburg, Ala.
Odom, Alva MitchellStonewall, Okla.
Orndorff, Melvin Ernest
Patterson, Henry S Alcreek, Colo.
Sharp, Reuben Wilkerson
Southall, Eunice HarmonBurleson
Stricker, Clyde WilliamBryan
Taylor, Archilous CBryan
Watson, Roy JNewcastle
Welch, Jim GBryan
Wilkins, Edmond Whitfield Paris
Wilson, William PGilmer
Wynne, Robert Bruce

### EIGHT WEEKS' COURSE IN AUTO MECHANICS

	a
Andrews, Richard Warren	San Antonio
Bean, Jesse	Lueders
Bench, Neal	
Bennett, Arthur Dorson	Brownsville
Bush, Nolan Austin	Omaha
Byrne, Rex Edward	Streetman
Courville, Edward	
Curb, George Thomas	Killeen
Davenport, R.	Center Point
Denman, Joseph Madison.	Rhome
Ehlo, Carl Fred.	Slaton
Ernst, Bruno.	MaDada
Feuge, Edgar Charles	Frederickurg
Fletcher, Joe Bailey	Mullin
Fletcher, Joe Balley	Durchaus
Gindorf, Theo E.	Brenham
Granz, Willie	Shiner
Haynes, William Franklin	
Heye, C. A	Gonzales
Hines, Steve Manning	
Howard, Artie Alonzo	San Antonio
Huebner, Herbert	Cameron
Johnson, Spencer Lowell.	Palacios
Johnson, Victor Edward	Creedmoor
King, German Deupree	Buda
Lehrmann, Henry	
Leppin, Oscar Chris.	Weimar
Long, Cecil A	Roscoe
McBride, Herbert Emerson	Swan
McDonald, Glenn M.	Athong
Marek, Edward J.	Domorrillo
Marek, Edward J.	Demavine
Mathews, Harry, Jr.	
Moore, Irby Henry	Reagan
Mueller, Herman Gerhard	Tynan
Murphy, James Jodie	
Oefinger, Walter Ervin	
Opryshek, John Jose	New Braunfels
Powell, Howard Wytte	Red Springs
Sanderson, Leron A.	Brownwood
Scasta, John Robert	Wheelock
Schriner, Willie	

Scott, Sam Wilks	. Colorado
Starling, Cyril Bryan	. Alto
Stuart, Albert	. Woodsboro
Treibs, Adolf W., Jr	. Fredericksburg
Welsch, Hanno Fritz	. New Braunfels
Williamson, E. H.	. Reagan
Winn, Ledyard	
Winn, Vaughn Pierce	. Muleshoe

### SUMMARY OF ENROLLMENT, SESSION 1921-22 BY STATES AND FOREIGN COUNTRIES

Texas	47	1
Arkansas		Ĩ
Louisiana		Ī
	19	A
Alabama	4	(
Tennessee	4	E
California	3	Ā
Colorado	3	0
Mississippi	3	H
Florida	2	H
Illinois	2	1
Connecticut	1	Ŧ
Indiana	ĩ	H
Massachusetts	1	
New York	1	
Ohio	1	
Oregon	1	·
Pennsylvania	1	
Rhode Island	1	
Washington	1	
Wisconsin	1	
Wyoming	1	

Mexico	9
Brazil	7
India	3
Argentine	2
China	$\overline{2}$
China	
Egypt	2
Australia	1
Cuba	1
Ecuador	ĩ
England	1
Mesopotamia	1
Peru.	ī
	÷.
Philippine Islands	1

# SUMMER SESSION 1921

Name	Division	Address
Adams, H. C.	. College	. Houston
Adams, M. H	. College	. Forney
Alexander, E. R.	. College	. College Station
Alexander, R. K.	. College	. Weatherford
Allen, J. A		
Alsup, E		
Ammons, C. N	. College	. Tabor
Ammons, G. M		
Ammons, Mrs. G. M		
Anderson, H. R.		
Anderson, J. P	. Cotton Classing—Federal.	.Bryan
Archer, J. F	. Cotton Classing	. Bowie
Argudin, M. Z		
Armstrong, G. E		
Armstrong, P. W.	. College	. Amarillo
Arnold, A. W	Auto Mechanics	. Angleton
Aronson, J	Cotton Classing	. Rosebud
Ashford, L.	. College	. Plantersville
Ashmore, D. G.	College	. Dallas

Name	Division	Addres
Ashworth, D. B	.College	. Weatherford
Astin R H	Cotton Classing	Stamford
Atkinson I T	Cotton Classing—Federal	McDada
Avakian' G. M.	. Cotton Classing.	. Houston
Avera, E. B	. College	. Augusta
Baker, C. L	Cotton Classing Fodoral	Davion
Baker, D. U	College	Haskell
Baker, J. M	Cotton Classing	Fyffe Oklahoma
Bare, J. H.	College	Yoakum
Barron, W. E	Cotton Classing	Tola
Bartlett J W	College	Dallas
Baskett, J. L.	. College	. Dallas
Bates, J. J Batson, J	. College	. Prairie Hill
Batson, J	.Auto Mechanics	. Normangee
Beasley, R. M.	. Cotton Classing	. Campbell
Beauchamp, D. S.	. Cotton Classing—Federal	Willis
Beers, Miss Mary D	. College	. Bryan
Beesley, B. B	. College	. Lancaster
Beesley, C. Bell, F. L.	. Farm Boys' Course	. Dallas
Bell, F. L	Cotton Classing Fodoral	Warshall
Belt, J. D Bennack, G. E	Auto Mochanica	North Placenton
Benton, J. H.	Cotton Classing—Federal	Dollag
Berlowitz, H. D.	Cotton Classing	Waco
Berlowitz J O	Cotton Classing	Houston
Berryman, C. C.	. College	Stillwater, Okla.
Birdwell L	College	Overton
Bizzell, W. S	. College	. College Station
Bizzell, W. S. Black, L. K. Blackford, J. M.	. Cotton Classing-Federal.	Temple
Blackford, J. M	.Special—Federal	. Delavan, Wis.
Blankenshin A E	Cotton Classing	Timpson
Bledsoe, T.	. Cotton Classing	. Hamlin
Blohm, WBlount, C	. Cotton Classing	. Poth
Blount, C	Cotton Classing	. San Antonio
Bluntzer, R. D Boatner, R. H	Cotton Classing	. Robstown Bishop
Boatwright, M. V	Cotton Classing	Arlington
Bobo, C. E.	College	Bryan
Boottahor B K	Cotton Classing	Schulonhurg
Bone, N. G.	.Special—Federal	Richardson
Boney, J. W	.Special—Federal	. Bedias
Boney, J. W Boney, W. E.	. Cotton Classing	. Madisonville
Boone, F. J	. College	. Brvan
Boriskie. F. W	. College	. Brvan
Bose, J. C	.College	.San Antonio
Boully, D. W Bowen, J. R	. Cotton Classing—Federal	. Bryan
Bowen, J. R	.Auto Mechanics	. Gouldbusk
Bowers, A. S.	. Cotton Classing	. Port Lavaca
Bowers, A. S., Jr Bowers, Miss Lucile	Cotton Closeing	Port Lavaca
Bowie, J. P.	Cotton Classing	Oklahoma City
	-	Oldahama
Bowles, G. R.	. Cotton Classing—Federal	. San Antonio
Boyce, J. T.	.College	.Okolona, Ark.
Boyd, R. E	.Cotton Classing-Federal	Jacksonville, Ark.
Boyett, A. P	.Cotton Classing	. College Station
Boyett, C. C	.College	. Hope, Ark.
Bowles, G. R. Boyce, J. T. Boyd, R. E. Boyett, A. P. Boyett, C. C. Boykin, F. M., Jr.	.Cotton Classing	.Taft

Name	Division	Address
Bozeman, J. S.	Cotton Classing	Sulphur Springs
Braley W L	Cotton Classing	Denton
Brandon W T	Cotton Classing	Wago
Braley, W. L. Brandon, W. T. Brandt, E. D. Brandt, F. D., Jr	Collogo	Tomple
Prendt F D In	Cotton Classing	Wallia
Drengle, n. I.	College	. Mildway
Bridges, R. E.	College	. Winneid
Brightweil, C. D	Cotton Classing	Port O Connor
Brooks, J. R	College	. Pilot Point
Breigle, H. I. Bridges, R. E. Brightwell, C. D. Brooks, J. R. Brown, E. L. Brown, G. H. Brown, P. L.	Cotton Classing—Federal	. Bryan
Brown, G. H	. College	. Berwick, La.
Brown, P. L	Cotton Classing	. Dallas
Drown, R. L	. Cotton Classing	. waco
Bruno, T. C	. Cotton Classing	. Bay City
Buchanan, R. L	. Cotton Classing—Federal	. Augusta, Ark.
Buckner, F. K	. College	. Weatherford
Buescher, L. A	. College	. Smithville
Burdon I P	Collogo	Cordonvillo
Burkes, W. M.	. College	. Reagan
Burkhalter, D. F	.Special—Federal	. Timpson
Burns, H. M., Jr.	. Cotton Classing	. Austin
Burns, W. W.	Special-Federal	Lamesa
Burkhalter, D. F. Burkhalter, D. F. Burns, H. M., Jr Burns, W. W. Busby, D. W.	Special-Federal	Houston
DUSD, N. A	College	вгуял
Bussey, E. D. Bynum, D. W.	College	Longview
Bynum D W	Cotton Classing	Snyder
Calhoun, H. H. Campbell, R. B. Canion, C.	.Special—Federal	. Mt. Olive, Miss.
$Campbell, R. B. \ldots \ldots$	. Special—Federal	. Seguin
Canion, C	. College	. Port Lavaca
Cardwell, D.	. Cotton Classing	. Needville
Carlton, R. A.	. College	. Fort Worth
Carmichael, J. F.	. College	. Granbury
Carmichael, P. R.	. Cotton Classing—Federal	. Granbury
Carpenter, J. F.	. Cotton Classing—Federal	. Commerce
Carmichael, J. F. Carmichael, P. R. Carpenter, J. F. Carroll, H. C. Carroll, P. E.	. College	. Dallas
Carroll, P. E.	. Cotton Classing	. Kenedy
Carson, C. W Carter, H.	College	. Eagle Pass
Carter, H.	Cotton Classing	. Teague
Cartwright, E. D.	Cotton Classing	Elgin
Cartwright, E. D. Casey, T. A., Jr.	Cotton Classing	Cameron
Ceika, F. G	College	Sublime
Cejka, F. G Chamberlain, G. S. Chamberlain, G. S. Chambers, E. D. Chappelle, H. L. Chastun, J. H.	Cotton Classing—Federal	Sulphur Springs
Chambers E D	Cotton Classing	Roaring Springs
Channelle H L	College	College Station
Chastun I H	Special_Federal	Bryan
Cherry, J. H.	Cotton Classing	Bockdale
Choate, M. H.	Auto Mochanice	Konody
Clark B C	Collogo	Mallostor Okla
Clark, B. C. Clark, P. H.	Spagial Fodoral	Hillshoro
Clarke, C. C.	Collogo	Little Deals Anls
Cleaver T T	College	Thous Ark.
Cleaver, T. T. Cleveland, N. A	Collogo	. 110up Brodyr
Cline W D	College	. Drauy
	Oottege	. bryan
Cline, W. B. Cobb, H. T. Cogg, T. C.	Cotton Classing	. rate
Oogg, T. U	. College	. Skidmore
Cochran, C. V Cocke, C. V	Conege	. Gonzales
Соске, С. У	Cotton Classing	. Laylor

Name	Division	Address
Coimbra, J	.Auto Mechanics	Pernambuco, Brazil
Colbert, L. L.	. Cotton Classing	Oakwood
Colbert, W. C.	. Cotton Classing	Ardmore, Okla,
Collens, R. A Collins, E	Cotton Classing	Waxahachie
Colling J C	Special—Federal	Arlington
Combs. R. L.	. Cotton Classing—Federal.	Cleburne
Combs, R. L. Conchola, V.	.Auto Mechanics	Marianna
Conner A D	Cotton Classing	Coleman
Conner, J. T. Cook, C. C.	Special-Federal	Austin
Cordoll B F	Colloro	San Antonio
Corley, C. C.	. College	College Station
Corley, C. C	. Cotton Classing	Charco
	Special—Federal	Liberty Hill
Craft, S. H Crane, J. R.	Cotton Classing	Frisco Kingsville
Cravens, W. O.	. Cotton Classing.	Honey Grove
Crawford J M	Cotton Classing	Stamford
Crittenden, W. M	.Special—Federal	College Station
Crooke, L. F.	Collogo	Conroe Hono Anl
Crosnoe, C. C Crow, C. L.	College	Groveton
Currie, V. M.	. College	Houston
Curry, F. P	. Cotton Classing	Tvler
Cypert, L. V	. Cotton Classing	Bryan
Daniel, J. S	. College.	Corsicana
Dart, M. E Darwin, J. M	. College	Dallas
Darwin, J. M	. Cotton Classing	Bryan
Davidson, W. E., Jr Davis, B. C Davis, D. P.	Collogo	Waco Sonoro
Davis, D. P.	Cotton Classing—Federal	Ballinger
Davis, H. B	. Cotton Classing—Federal.	Fulton, Ark.
Davis J B	Cotton Classing	Dorchester
Davis, J. J Davis, L	Cotton Classing.	Gorman
Davis, L. C	College	Bisnop Bockdale
Davis R F	Cotton Classing	Taylor
Davison, F. A Dawson, E. P.	.Farm Boys' Course	
Dawson, E. P	. Cotton Classing	Maypearl
Dean, I. L Dean, T. N	. Auto Mechanics	North Zulch
Dean, W. H	Cotton Classing	Winters
Dearman, J. R.	. Auto Mechanics	Marianna
Deering, P. A.	. College	Yancey
Dees, D. B.	. Cotton Classing—Federal.	Bryan San Antonio
DeLesdernier, W. F Deutschman, B. F	Auto Mechanics	Fort Worth
Dickey, G. L.	. College	College Station
Dickey, Wilma	. College	. McComb
Districh P K	College	Riverside, N. J.
Draper, J. L. Driggs, O. T.	Special—Federal	Bryan
Duke, E. R.	. College	Claude
Dumas L W	College	Mason
Dycus, R. W	. Cotton Classing	Farwell

.

Name	Division	Address
Earle, J. R		College Station
Early, J. D	Cotton Classing	Wago
Eaves, R. A	Special Federal	Woodvillo
Eaves, R. A	Cotton Cleasing	Stanton
Ebbersol, E	Collor Classing	. Stanton
Eden, Josephine	. College	. Bryan
Ehrlich, A. L.	. Cotton Classing	. Austin
Eidson, J. P	. Cotton Classing	. Karnes City
Eiland, C. C	Cotton Classing	. Greenville
Elliott, J. W	. College	. College Station
Emery, O. C	. College	. Denton
Emery, O. C. Ernst, L. A.	. Auto Mechanics	. Marianna
Fair, D. L.	.Special—Federal	. Hillsboro
Faulkner, R. C.	. College	. Sherman
Fenner C B	College	Cordele
Fenstermaker, A	College	San Antonio
Fitzgerald, J. K., Jr.	College	Beaumont
Ford, A. B.	College	Wellborn
Ford, A. F.	Cotton Classing	North Zulch
Forgason, J. P.	Colloro	Son Antonio
Formost F P	College	Wayahachia
Forrest, F. B Foster, T. O	College	Son Antonio
Foster, I. U	College	Ball Antonio
Fountain, J. M	Contege	Dryan Dryan
Fox, J. U	. Cotton Classing—Federal.	Broadous
Fram, P	. College	. Dallas
Franck, S. R.	. College	.San Antonio
Fraser, C. K	. College	.St. Paul
Frederick, J. G.	. Cotton Classing	. Garrison
Frederick, W. B.	. College	Blooming Grove
Freeborough, B. B	. College	.San Antonio
Freeman, E. M	. College	. Marshall
Freeman, J. M.	. Cotton Classing	.Fort Worth
Friar, 0	. Cotton Classing	. Cuero
Fridge, C. R.	Cotton Classing.	. Houston
Fritts, T. A	. College	. College Station
Fritts, T. A. Frnka, J. L.	. Cotton Classing	. Houston
Fullerton, C. B.	. Cotton Classing	Sulphur Springs
Furman, R	. Cotton Classing	. Corpus Christi
Fussell, W. S	. College	. Polytechnic
Galbreath, J. M.	Cotton Classing	Gainesville
Gargus, D. A.	Cotton Classing	Trent
Gargus, D. A. Garnett, E. W.	College	Denton
Garrett, E. H. Garrett, G. M.	Cotton Classing—Federal	Bryan
Garrett G M	College	Paris
Gatlin, E. N.	College	Ladonia
Gawlik, S. I.	Cotton Classing	Karnes City
Gay, S. J.	Collogo	Moscow
Gaarmald N	College	Stophonvillo
Gearreald, N. Gee, S. T.	Cotton Classing Fodoral	Weee
Cibron D E	Collore	Naco Dort Lorroco
Gibson, D. E.	Cotton Classing Fodorol	Port Lavaca
Gideon, E. H. Giles, D. D.	Collored Classing-Federal.	Dryan
Clearner W. D.	College	College Station
Glazener, V. K	. College	College Station
Glover, J. H	. Cotton Classing—Federal.	Bettle
Gonmert, E. H.	. College	. Y orktown
Glazener, V. R. Glover, J. H. Gohmert, E. H. Gohmert, S. R.	. Cotton Classing	.Yorktown
Goodwin, R. E.	Cotton Classing	. Odessa
Gourley, W. M	. College	Oklaunion

Name	Division	Address
Govea, H	. College	. Torreon, Mexico
Graham, C. M.	. College	. Brvan
Graham W P	College	Bryan
Graves J W	Cotton Classing—Federal	Meridian
Greathouse, C. W Green, W	Cotton Classing	Portland
Green, W	Cotton Classing	Gilmer
Greenwade, D. P.	Cotton Classing	Rochester
Greer, D. C	College	Pittshurg
Greer, J	Farm Boys' Course	Trene
Greer, J. Gregg, W.	College	Slidell
Gregory C R	Special—Federal	Brookshire
Gregory, C. R. Griffith, F. O., Jr	College	Quanah
Griffith, T. E	Cotton Classing	Fort Worth
Grothaus, F E	College	San Antonio
Grothaus, F. E Guenther, F. M	Cotton Classing	San Antonio
Guiberson H R	College	Seattle Wash
Guiberson, H. R	Special-Federal	DeBerry
Gunn, J. R.	Cotton Classing	Bichland
Gunter H	Cotton Classing	Gainosvilla
Gunter, H. Gustavus, O. C.	Special Federal	Bryon
Haines, L. C.	. Cotton Classing	. Gatesville
Haldeman, H. P	. Cotton Classing	. Austin
Hale, C. A	.Special—Federal	.Bryan
Hale, G. C.	Special—Federal	Brvan
Hamilton, A. J.	. Auto Mechanics	. Port Arthur
Hammer, V. $H$	. Special—Federal	. Timpson
Handrick, J. A Hannaford, W. E	. College	. Lincoln
Hannaford, W. E	. College	. Granbury
Hardman, B. J. Hardy, E. H. Harper, F.	.Special—Federal	.Freeport
Hardy, E. H.	. College	. Abilene
Harper, F	.Special—Federal	. Cooper
Harrell, E	Cotton Classing.	. waco
Harrell, J. D.	. Cotton Classing	. Colorado
Harris. J. W	. Cotton Classing	. Houston
Harris. R. C.	. Cotton Classing	. Dike
Harrison, K.	Farm Boys' Course.	. Devine
Hatanaka, T.	Cotton Classing	.Fort Worth
Hawtof, É. M	Cotton Classing	. Waco
Havnie, C. W.	. Cotton Classing.	. Kemp
Heap. É	. Cotton Classing	. Taylor
Hester, S. G.	. College	. Thomas
Hickman, T. C.	. College	.Hondo
Hicks, E. V	. Cotton Classing	.Savoy
Hicks, J. E	. Cotton Classing	Tvler
Hill, D. H	Cotton Classing	Ballinger
Hill, R. D.	College	. Dawson
Hines, J. H	College	Austin
Hogan, W. Holder, W. H. Holland, J. W.	Cotton Classing-Federal.	Percilla
Holder, W. H	Special—Federal	Bryan
Holland J W	Special—Federal	Bryan
Horn, W. C	College	Montgomery
Horn, W. C. Horne, O. L.	Special-Federal	Maverick
Howell, L. D.	College	Bexar, Alahama
Howell, R. H.	College	Bexar, Alahama
Hudgins, J. W	College	Forney
Hudson, D	College	Mart
Hughes, D. A	Cotton Classing	Dallas
Hughes, E. S.	Cotton Classing	Fort Worth
тиднов, ш. р	. Cotton Classing	. LOIO WOIDI

Name	Division	Address
Hughes, J. M.	. College	Bryan
Hugon, L. R. Humphrey, J. W.	. College	Gainesville
Humphrey, J. W	Cotton Classing	Lindall
Hundley, P	Cotton Classing	Dallas
Hunnicutt, J. K.	Special_Federal	Winslow Indiana
Hunt, J. Hunt, R. L.	College	Brvan
Hurst E L	Cotton Classing	Rohv
Hurt, S. F. Hyland, G. G.	. Cotton Classing	Austin
Hyland, G. G.	. College	College Station
Hyland, Kathryn M		
Ingram, M	. Cotton Classing	Paris
Irwin, K. W	. College	Teague
Irons, W. B	Cotton Classing	Paducah
Jackson, B. H.	. County Agents' Course	Crystal City
Jarvis, N. H.	Cotton Classing	Troup
Jennings, C.	. Cotton Classing—Federal.	Bryan
Jernigan, J. A.	College	Abilene
Johnson, P Johnson, R. R.	Earma Barra' Course	Webstor
Johnson, K. K.	Cotton Classing	Hico
Johnson, W. H. Johnson, W. H. Jones, B. D.	Special—Federal	Brvan
Jones, B. D	Special—Federal	Comanche
Jones. C. H.	•Cotton Classing	Temple
Jones, C. V.	Cotton Classing	Baird
Jones, J. D	. Special—Federal	Bryan
Jones, R. S	. Cotton Classing	Montalba
Jordan, N. B.	. Cotton Classing	Waxahachie
Josserand, P. L.	. Special—Federal	Galveston
June, M. M Justiss, O. R	Auto Mechanics	Omehe Station
Kehrer, A. J	Special—Federal	.San Antonio
Kelley, E. D. Kelly, B. F.	Cotton Classing—Federal.	Conroe
Kelly, B. F. Kerr, H. S.	Collogo	Amarillo
Kerr, J. F.	College	Thurber
Key, K. B.	College	McKinney
Kiber, D. H.	College	Arlington
Kinard, J. M	. Cotton Classing—Federal.	Junction City,
		Arkansas
King, C. J	. Auto Mechanics	Batesville
Knight, C. M.	Special—Federal	Miller Grove
Knight, J. E.	Auto Mechanics	. Palestine
Knippa, M Koenig, E. A	Collogo	Bryon
Krauss, F. C., Jr	Cotton Classing	Kaufman
Krenek J. J	Cotton Classing	Brvan
Krenek, J. J. Kreusler, W.	.Special—Federal	Cibolo
Ladd G L	Cotton Classing—Federal	Pattonville
Laden, W. W	Cotton Classing - reueral.	Brvan
Lancaster, V. Z	Cotton Classing	Granbury
Laden, W. W. Lancaster, V. Z. Lander, O. M.	Cotton Classing	Victoria
Latimer, Fulton	. Cotton Classing-Federal.	Bryan
Latimer, Fulton	. Cotton Classing	Austin
Law, F	. Cotton Classing	. Madisonville

	<u> </u>	
Name .	Division	Address
Lawler, Miss Genevieve Leatherman, H. T	.College	. Bryan
Leatherman, H. T.	. Cotton Classing	. Bartlett
Ledbetter, A	College	Brady
Lee, I. D. S. Lee, R. O.	. Cotton Classing—Federal.	College Station
Lee, R. O	. Cotton Classing-Federal.	Marshall
Lee, S. D.	College	Elizabeth. La.
LeMay, S. R	. College	. Cooledge
LeMay, S. R. Leslie, C.	. Cotton Classing—Federal.	Ashdown, Ark.
Lester. T. M	. Cotton Classing	. Corpus Christi
Lewis, C. C	.Auto Mechanics	. Jonesboro, La.
Lindholm, C. M	. Cotton Classing	. George West
Lindholm, E	. Cotton Classing	.George West
Lindsey, R	.Auto Mechanics	. Lott
Lininger, G. L.	. Cotton Classing	. Galveston
Lloyd, A. C. Lokey, C. B.	.College	. Reagan
Lokey, C. B	. Cotton Classing	. Lubbock
Love, B. S Loyd, J. L.	. College	Franklin
Loyd, J. L	. Cotton Classing—Federal.	Russellville
McAfee, R. H.	. Cotton Classing	. Madisonville
McAllister, T. U McCall, S. B	. College	Fort Worth
McCall, S. B	. Cotton Classing	. waco
McCarter, T. A	. College	Gaiveston
McCartney, T. E	. Cotton Classing	. waxanachie
McCarty, T. J.	. College	. Cisco
McClane, N. R., Jr McCleskey, B	. Cotton Classing	. Kenedy
McDereld F O	Catton Classing Fodoral	Abilono
McDonald, E. O McDonald, G. M	. Cotton Classing—rederal.	Athons
McDuffie, A. L.	Cotton Classing	Dallar
McFarland, H.	Cotton Classing	Brownwood
McFarland, J. C.	Collogo	Boorne
McGlothing, A. V.	Collogo	Waelder
McGrath, R.	Cotton Classing	Timpson
McIlvain, H. M	Cotton Classing	Rockwood
McKain, E. B.	Cotton Classing	Greenville
McKean E B	Cotton Classing	Luling
McKinney, W. H. McKnight, T. W. McKoy, E. C.	College	Lewisville
McKnight, T. W.	College	Hallettsville
McKov, E. C.	College	Rockwall
Melaury W R	College	Shvder, Ukla.
McLemore, F. E	Special—Federal	Brvan
McNelly, C. B.	. College	. Uvalde
McNiel, H. R.	College	. Moore
$McPhe \in ters. W. H. \dots$	. College	. College Station
McRimmon M D	College	Troup
McSwain, R. F	. College	Wellborn ·
McWhirter, B. F	. Cotton Classing	. Kemp
	~	
MacFarland, G. O	. College	Houston
Magee, J. B.	. Cotton Classing	Lockhart
Maizumi, F. G.	. Cotton Classing	San Antonio
Mallow, R.	Auto Mechanics	Colomon
Malone, M. L.	. College	Uoleman
Mangum, J. F.	. College	College Station
Manning, E. M	College	Loonege Station
Manning, P. Martin, F.	Cotton Classing	Dussollyillo Arl
Martin, F. P.	Cotton Classing	Bryan
Wiarum, F. F	. Cotton Classing-rederal.	Diyan

۰.

Name	Division	Address
Martin, T. J	.College	. Dallas
Martins, K.	. Farm Boys' Course	. Iowa Park
Masuda. B. J	. College	. Cairo, Egypt
Matney, E. A.	. College	. Fort Worth
Matthews, Mrs. W. H	.College	. College Station
Maxson, T. E.	. College	.Fort Worth
May, I. M.	College	. Normangee
Mayfield, L	College	. Bryan Biyorgido IB I
Medbery, C. A Meitzen, R. J.	College	San Antonio
Menefee, T. B.	Auto Mechanics	Port Arthur
Messenger, F.	. College	. Decatur
Mierzwik. H.	.Auto Mechanics	Belton
Mieth, A. J	. Cotton Classing	.New Ulm
Milazzo L C	College	Texarkana, Ark.
Miles, W. J. Miller, C.	.College	. Mineral Wells
Miller, C	. Cotton Classing	. Clifton
Miller, R. V. Miller, W. J.	. Cotton Classing	. Houston
Milligan P I	Collogo	Makinnow
Milroy W R	Cotton Classing-Federal	Bryan
Milroy, W. R. Mims, G. H. Mitchell, H. A.	College	Austin
Mitchell, H. A.	. Cotton Classing	Rush Springs.
		Oklahoma
Mixson, E	. Cotton Classing	. Commerce
Mogford, A. C	. College	. Streeter
Monk, J. W	. College	. Center
Montford, W	. Cotton Classing—Federal.	Bridgeport
Montgomery, S.	Cotton Classing	. Waco Dortlott
Montgomerv, W. E Moore, J. H	Cotton Classing	Bryon
Moore, J. I.	College	Hubbard
Moore, T. M	College	Kurten
Moore, W	. Cotton Classing	. Charco
Moosberg, J. O	. County Agents' Course	. Wills Point
Morgan, E. H.	. College	. Houston
Morgan, R. F.	. Cotton Classing	Honey Grove
Morris, A. A.	. Auto Mechanics	San Antonio
Morrow, B. L	Auto Mechanics	. Robstown
Mosley, J. E.	Cotton Classing Fodoral	North Zuleh
Mulvey, W. B.	College	Houston
Lizuroj, (, D	· conege	iloubion
Neal, G. T	. College	Fort Worth
Neill, Zola	.College	. Athens
Nelson, G. B	College	Greenville
Nelson, J. C	. Cotton Classing—Federal.	Mangum, Okla.
Newhouse, E. A	.College	Canton, Ohio
Oates, E. J	Cotton Classing	Wass
Odom, A. M.	Cotton Classing	Stonewall, Okla
Odom, W. E.	Cotton Classing	Austin
Olson, A. M	College	Clifton
Orr, J. A	.College	Blytheville, Ark.
Osborne, S. V., Jr	. Cotton Classing	Brandon
Orr, J. A. Osborne, S. V., Jr.	.Special—Federal	Bryan
Page, H. H. Park, P. S., Jr.	College	Lockhart
rark, r. d., Jr	. oonege	. Dryan

•

# 317

Name	Distator	A J Junear
Name	Division	Address
Parker, C. D.	College	. Dilley
Parker, Mrs. C. D.	College	. Dilley
Parker, W. P Parsons, E	Cotton Closeing	. Daira Cadda Milla
Parsons, J. M.	College	Groonvillo
Paschal, S. S.	Special_Federal	Mt Calm
Pate, R. W	Cotton Classing—Federal	West
Patterson, F. H	College	Yancey
Patterson, F. H. Patterson, H. S. Patterson, R. C.	. Cotton Classing—Federal.	Brvan
Patterson, R. C.	. College	Brownwood
Pauls, E. C.	Cotton Classing	. Paige
Perdue, R. L	College	. Reagan
Perkins, A. B.	. Farm Boys' Course	Burlington
Perkins, L. S.	Cotton Classing—Federal .	Bryan
Perritte, S. V Peter, R. A	College	. Wallis
Peter, R. A.	Cotton Classing	. Yoakum
Peterson, H., Jr.	. Auto Mechanics	Chocolate Bayou
Petty, S.	Callena	. Gouldbusk
Phillips, R. Platt, E. G.	Cotton Classing	Duncan, Okia.
Popham, T. A.	Collore	Floresville
Porter C R	Cotton Classing—Federal	Gainesville
Porter, Ć. R. Porter, J. W.	College	Terrell
Potts, C. B.	College	Batesville
Potts, T. P.	College	. Valley Mills
Powledge, L. R.	College	Hico
Presnal, E. Prewitt, J. A.	Special—Federal	. Bryan
Prewitt, J. A	Special—Federal	. Round Rock
Price, A. J.	. Cotton Classing	. Tyler
Price, E. O.	Cotton Classing	. Hermitage
Probet A E	Cotton Classing	Coorgo Wost
Price, E. W. Probst, A. E. Pulliam, W. E.	Cotton Classing	Voakum
Radi, S. A.	College	. Bagdad.
Rainbolt, H. M.	Cotton Classing	. Abilene
$\mathbf{R}$	Special—rederal	. Dryan
Rankin, A. J.	College	. Elgin Wahatan
Rawls, S. S Reasonover, J. V	Cotton Classing	. Webster
Redding, I. K.		College Station
Redditt, T. G.	College	. Center
Reece, R	College	. Farmersville
Reed, C. V. Reed, T. F.	College	.Wortham
Reed, T. F	College	. Clayton
Reid. T. J.	Cotton Classing	. Gonzales
Rektorik, J.		
Rendall, E. A Reynaud, O. F	College	. Brownsvine
Richards, W. B.	College	Kilgore
Riggs, O. B.	Cotton Classing	Quinton, Okla.
Riggs, T. E.	. College	. Gainesville
Riggs, T. E. Rikard, B. F.	College	. Percilla
Roberts, P. H	Special—Federal	. Itasca
Roberts, S.	Cotton Classing	. Rush Springs,
Robinson, B. B. Rogers, F. R. Rogers, W. C.	Callara	Oklahoma
Rogers F R	Cotton Classing Foderal	Monticello Arl
Rogers, W. C	Cotton Classing-rederat	Konnerl
		. roppen

Name	Division	Address
Rollins, J. T	.College	. Greenville
Rollins, W. F	Cotton Classing	Noble, Oklahoma
Romberg, L. D.	. College	. Holland
Roper, W. N.	. College	. Rosebud
Rosborough, J. F	. College	. Marshall
Rosborough, R. A Roscoe, S.	. College	. Marshall
Roscoe, $S_{\ldots}$	. Cotton Classing	. Waco
Ross, L. R	. Cotton Classing	Bowie
Rowland, C. E.	. Cotton Classing	. Longview
Rowland, W. M. Rush, H. D. Rush, S. P.	. Special—Federal	. Bryan
$\operatorname{Rush}_{\mathcal{H}}, \operatorname{H}_{\mathcal{H}} D \ldots \ldots \ldots \ldots \ldots$	. College	. Marlin
Rush, S. P.	. Farm Boys' Course	. Bryan
Russell, F. E. Ryan, O. T. Rye, S. H.	Collors	Ladonia
$Ryan, O. T. \dots$	Cotton Classing	Livingston
куе, 5. н	. Cotton Classing	. Lamar, Arkansas
Sandal I M	College	Brwan
Sandel, J. M Sanders, J. H. R	Cotton Classing_Federal	Anson
Saunders J L	College	Smithville
Saunders, J. L. Sawyer, C. M.	Special-Federal	Millican
Savles C M	College	Ahilene
Sayles, C. M. Scales, R. H.	College	San Antonio
Schroeder, R. C.	Auto Mechanics	Brenham
Schuttee, E. A.	. College	Brvan
Scofield, R. M.	College	. Gainesville
Seelke, A. G.	. College	. Giddings
Sevle, S. R.	College	College Station
Sheffield, J. M., Jr.	. College	. Mart
Sheffield, J. M., Jr Shoemaker, E. F	. Cotton Classing	. College Station
Shropshire, P., Jr.	. Cotton Classing	.Fort Worth
Shuler, H	. Cotton Classing	. Snyder
Simmons, E	Auto Mechanics	. Normangee
Simmons, W. E Sims, C. T Sims, J. W	.College	. Dayton
Sims, $C.T$	. College	. Cleveland
Sims, J. W	. Cotton Classing—Federal.	Mexia
Singleton, J. V Skains, W. T	Cotton Classing	. Marquez
Skains, W. T	College	China
Skinner, A. A.	Cotton Closeing	. Unina Molurin
Smith, C.	Special_Federal	Bryan
Smith, C. C. Smith, C. T.	College	Pittshurg
Smith E	College	Bryan
Smith, E. Smith, H. J.	Cotton Classing	Ector
Smith, R. D.	Auto Mechanics	Brownsville
Smith, T. D	Special-Federal	Alba
Smith, W. H.	Cotton Classing	Houston
Smith. W. K.	College	Gatesville
Smith, W. K. Smith, W. S.	College	Albany
Smotherman, M.	College	. College Station
Smyth, L. L.	College	Mart
Snow, J. C. Solomon, H.	. College	. Leonard
Solomon, H	. Cotton Classing	Bowie
Sonka, M. J	. Cotton Classing	. Seguin
Sooter, C. E.	Cotton Classing	Slaton
Spivey, J. R. Spiekermann, H. F.	College	Fort Worth
Spiekermann, H. F	Cotton Classing	. Falfurrias
Squires, W. Ŕ.	. Cotton Classing	Dallas
Stallings, A	College	Bryan
Stark, J. A.	. College	. Sealy

Name	Division	Address
Stephens, G. R.	. College	. Mission
Stephens, G. R Stewart, H	Cotton Classing	. Granger
Stewart, M. P.	. College	. Kirbyville
Stiles, W. A	College	Waco
Story, F. G.	College	. Enloe
Strange J H	College	Mart
Strange, W. T., Jr.	. College	Ardmore, Okla.
Strange, W. T., Jr Strain, W.	. Cotton Classing	Millsap
Straughan G R	Special	Lovelady
Stribling, R. C. Strickland, A. C. Strickland, J. W.	. College	Rockdale
Strickland, A. C.	. College	Groesbeck
Strickland, J. W	. Cotton Classing	. Garrison
Striegler, R. H. Stubbs, F., Jr	. College	Fredericksburg
Stubbs, F., Jr	Farm Boys' Course	Robstown
Sugar F M	Cotton Classing	Abilene
Sullivan, A. L. Sullivan, W. J. B.	. Cotton Classing—Federal.	Atar, Oklahoma
Sullivan, W. J. B.	. College	Fort Worth
Summers, W. R.	.College	. Corsicana
Svetlik, F. H.	. Cotton Classing-Federal.	Bryan
Summers, W. R. Svetlik, F. H. Sylvester, J. W.	.Special—Federal	. College Station
<b>Talbert, E. H</b>	. Cotton Classing—Federal.	Cabot, Arkansas
Tanner, $\mathbf{C}$	. Cotton Classing	. Wolfe City
Taylor, E. W	. College	. Houston
Thacker, T	. Cotton Classing	. Houston
Thadani, K. I	. College	. Karachi, India
Thacker, T. Thadani, K. I. Thomas, E. O.	. Cotton Classing	.Soper, Oklahoma
Thomas R B	College	Dallas
Thorington, W. L Thurmond, M. F	.Cotton Classing	. Taft
Thurmond, M. F.	. College	. Meridian
Tiner, W. D Tinsley, J. E	. College	. Uvalde
Tinsley, J. E.	Cotton Classing	. Madisonville
Tomlinson, A. L	. College	. Marlin
Tompkins, J. F.	. College	. Corpus Christi
Townsend, A.	Cotton Classing.	Snyder
Tompkins, J. F. Townsend, A. Tracy, W. C. Trotter, W. L. K. Tucker, J. C.	Cotton Classing—Federal.	Victoria
Trotter, W. L. K	Cotton Classing	. Camden, S. C.
Tucker, J. C	College	Brennam
Tune, S. D. $\dots$	Gallers	. Big Sandy
Tunell, B. F. Turner, D. L.	College	. Forney
Turner, D. L	. College	, bryan
Upshaw, R. E.	Cotton Classing-Federal	Bryan
Ussery, A.	Cotton Classing reactar.	Luling
Ussely, A	Outon Classing	Duning
Valdez, R.	College	Guavaguil.
		Ecuador
Vance, T. B	Auto Mechanics	Devine
Van Horn R. M	College	Fort Worth
Van Tuyl, A. J.	. College	Fort Worth
Van Tuyl, T. B	. College	Fort Worth
Van Tuyl, A. J. Van Tuyl, T. B. Varisco, B. T.	. Cotton Classing	Steeles Store
Venable, O. T	. Cotton Classing—Federal.	Hope, Arkansas
Venable, O. T Vernon, L.	. Cotton Classing	Alamo, Tennessee
Walker, A	. Cotton Classing	. Tyler
Walker, H. H.	College	. Tyler
Walker, R. E Warburton, J. R	. College	. Cooper
warburton, J. R	. Cotton Classing	. Falfurrias

Name	Division	Address
Ward, L. L	Cotton Classing-	Federal. Brvan
Warren, R. L.	Cotton Classing-	Federal Paris
Waters, B. M.	Cotton Classing	Ringgold
Watson, J. Y.	Cotton Classing.	Groveton
Watson, R. D.	Cotton Classing.	Nowcostle
Watson, R. D	Cotton Classing.	Edoral Newcastle
Watson, R. J.	Collore	rederal. Newcastle
Webb, C. A.	College	San Antonio
Webb, C. M	College	San Antonio
Webb, E	College	San Antonio
Wehmeyer, E	Cotton Classing	Port Lavaca
Welch, J. G	Special—Federal.	Bryan
Wells, L. M	College	Corbet
Wells, R. T	Auto Mechanics	Westplains, Mo.
West, S. G	College	Canton
Whalin, R. E	Cotton Classing	New York City
White, T	College	Sealy
White, T. White, T. D.	Farm Boys' Cours	eUvalde
Whitehead, B. F	Cotton Classing-	Federal, Hearne
Whittemore, P	Cotton Classing	Munday
Wickes, H. E.	Cotton Classing	Galveston
Wilbanks, J. W		
Wilburn, J. B.	Special Federal	Ladonia
Wilcox, A. H.	Collogo	Tooguo
Wilcox, G. B.	College	Collogo Station
Wiley, J. W	Cotton Classing	
Wiley, J. W	Cotton Classing.	
Wilkerson, W. W	College	Hearne
Wilkins, C. A.	College	
Williams, O. T	College	Springtown
Williams, R. B.	College	Albany
Williamson, W. C	Cotton Classing	Belton
Willis, W. H	College	Bryan
Willis, W. S. Willson, C. M.	College	Beeville
Willson, C. M	Cotton Classing	Fort Payne, Ala.
Wilson, E. A.	College	Leonard
Windsor, C	Auto Mechanics	Normangee
Wolfe, G. C.	College	Tyler
Womack, H. E	Cotton Classing.	Medill
Wood, C. R.	College	Honey Grove
Wood, S. H	Special-Federal	Burleson
Woodward, F. T	Cotton Classing	Santa Anna
Works, M. M.	College	Amarillo
Worsham, J. L.	Special_Federal	Bryan
Wright, S. R.	Collogo	Weatherford
Wulff, H. A.	Cotton Classing	Drodre
wum, m. A	Cotton Classing	Drauy
Young, W. K	College	Laredo
Zacharian D. H.	Cattan Classics	Coincertille
Zacharias, D. H.	Collore Classing	
Zachry, H. B.	College	
Zrubek, M	Cotton Classing	
	a a	Slovakia
Zwernemann, A. W	Cotton Classing	Lincoln
Zwernemann, E. T	Cotton Classing	Lincoln

321

.

.

322

AGRICULTURAL AND MECHANICAL COLLEGE OF TEXAS.

# SUMMARY OF ENROLLMENT, SESSION 1921-22

			1	DEGF	EE	CO.	URS	$\mathbf{ES}$				-	_	
Agr. Graduate 8 Senior 68 Junior 64 Sophomore 72 Freshman 102 314	AA.  13 44 67 127	Ag.Ed. 3 6 1 3 16	V.M. ··4 ··2 ··4 ··2 ··4 ··4 ··2 ··4 ··4	Ag.Eng.  17 9 26	$     \begin{array}{r}         Arch \\             1 \\             7 \\           $	. Ch.E. 39 17 28 38 122	C.E. 5 36 38 57 95 231	E.E.     40     43     62     124     269	M.E. 25 24 37 70 158	 8 7				Total. 19 233 228 360 562 
<b>S</b> pecial 60	6	15	••	2	12	<b>2</b>	6	• 10	6	3	1	••	••	123
			Т	WO-Y	EA	R CO	OUR	SES						
Second Year First Year					2	C 25 41		H 5 6	1	м 5		N 13 26		Total 43 78
					(	36	1	1		5		39		121
Federal Student Federal Student Auto-Mechanics	:s—C	otto	n Cl	assing										. 36
Total 1	Regu	lar S	essio	on	••••				• • • •		••••		• • • •	. 1772
Summer Session	n, 19	21:	$ \begin{array}{c} 1.\\ 2.\\ 3.\\ 4.\\ 5.\\ 6.\\ 7.\\ \end{array} $	Colle Cotto Feder Farm Auto Coun Farm	on C al S Bo Me ty I	lassi stude ys'C chani Agent	ng nts— ourse cs s' Co	-Spe e	cial .	   	••• 4 ••• •••	$294 \\ 290 \\ 56 \\ 13 \\ 34 \\ 2 \\ 542 \\ 542 \\$		1231
Less names repe	eated													. 3003 . 244
Net en	rolln	nent,	192	1-22.										.2759

# DEGREES AND HONORS.

### DEGREES AND CERTIFICATES CONFERRED AT THE FORTY-FIFTH ANNUAL COMMENCEMENT

### (May 24, 1921)

### Master of Science

### In Agriculture (3)

Wrathall King Hanson, B. S., A. and M. College of Texas, 1916.

Luther Goodrich Jones, B. S., Princeton University, 1917.

John Henry Wheelock, B. S., Iowa State College, 1920.

#### In Architecture (1)

Robert Erroll Merrell, B. S., A. and M. College of Texas, 1920.

#### Chemical Engineer (1)

Robert Schaer, B. S., A. and M. College of Texas, 1919.

### **Bachelor** of Science

#### In Agricultural Education (3)

Claypool, T. H. Fritts, T. A. Hughes, W. L.

#### In Agriculture (57)

Alsmeyer, L. H. Attebery, W. H. Bertschier, F. L. Birk, C. E. Bloudworth, J. E., Jr. Blumenthal, C. Brison, F. R. Caldwell, J. M., Jr. Cooper, A. M. Daniel, J. S., Jr. Dyer, C. B. Dykes, J. C. Evans, S. Frigari, C. E. Friend, W. H. Hall, T. Horn, H. B. Jordan, J. J.

Barnes, B. H. Coffin, P. C. Denison, G. A. Easley, R. K.

Armstrong, W. H. Buie, F. P. Cape, J. D. Clayton, R. L. Forbes, A. L., Jr. Gaddis, M. L. Kempen, G. J., Jr. King, W. C. Kirkland, K. L. Langston, J. H. Lewis, T. B. Livingston, G. D. Luker, C. McCheeeters, W. H. Mahan, J. F. Martin, G. W., Jr. Matthews, H. R. Maxwell, R. H. Menzies, W. Mizell, J. L. Montfort, P. T. Morthensen, E. Mowtery, R. C. Northcutt, W. D., Jr. Percy, A. W., Jr. Potts, T. P. Robinson, H. C. Rollins, J. T. Rothe, C. H. Sanders, C. P. Sanders, J. S. Sherrill, C. W. Smith, F. E. Snell, M. G. Spessard, W. B. Stark, J. A. Thomas, R. R. Tucre, W. P. Tuerpe, E. C. Tyson, P. M. Varnell, E. H. Ward, E. C. Warden, C. C. B.

### In Chemical Engineering (12)

Farrell, J. L.	Meyer, S.
Gieseke, J. O.	Phillips, V. H.
Japour, M. J.	Smith, C. R.
John, E. G.	Vanderburg, J. E.

#### In Civil Engineering (21)

Loving, O., Jr. Und McKeen, E. E. Wag Mullane, W. A. Wall Park, F. L. Wall Ragsdale, T. W. Wall Roberts, J. B. Wein Taylor, W. H., Jr. Woo

Underwood, A. T. Wagstaff, J. P. Walker, E. M. Walker, J. A. Walker, J. K. Weinert, M. D. Woolverton, A. H. Baucom, J. W. Denny, W. M. Finn, D. J. Gouger, G. B. Harding, A. G. Legg, A. S.

Anderson, G. D. Axe, P. A. Bettis, I. H. Bussell, R. W.

Matthes, L. H. Merchant, M. W. Miller, G. B., Jr. Murphree, D. D. Peter, A. A. Pierce, J. A.

Pustejovsky, V. J. Robinson, E. L. Scudder, C. F. Thomas, D. V. Vinther, P. N. Woods, J. E.

### In Mechanical Engineering (12)

Crippen, W.	
Denning, C. O.	
Edwards, C. H.	
Egger, H. W.	

Hatley, A. E. Leverett, F. M. Neynaber, A.!C. Westerhoff, A.<u>!</u>G.

In Textile Engineering (1)

Warndof, C. R.

#### **Doctor of Veterinary Medicine (6)**

Childers, R. R. Dunn, S. R.

Andrews, H. E. Ashley, R. D. Bohls, J. G. Bradley, C. L. Carmichael, R. H. Castle, W. G. Clark, H. J. Davis, B. C. DeBerry, G. E.

Alsmeyer, H. L. Baugh, D. L. Burnam, R. M.

Blake, C. O. Browning, R. H. Chapman, S. P. Dockal, J., Jr. Douthit, J. D.

Johnson, W. T. Mockford, J. P.

Patton, J. W. Reid, J. J.

### **CERTIFICATES IN TWO-YEAR COURSES**

### Agriculture (27)

Dick, J. M., Jr. Duke, E. R. Ellwood, L. E. Gadberry, H. Harrel, E. Hobbs, E. Huey, P. Johnson, L. L. Land, V. H.

Magill, W. M. Morgan, W. R. Potts, G. S. Smith, C. C. Smith, W. K. ¶ Sterling, T. M. Sumner, B. M. Sunkel, J. D. Tate, L. R.

Agricultural Engineering (10)

Camp, B. C. Doherty, N. M. Hall, C. E. Harris, G. F.

Henderson, B. Hill, A. T. Newport, F. C.

#### Engineering (14)

Heve, W. H.	Meador, M. L.
Holzapfel, R. O.	Shaw, J. B.
Jeffery, I. C.	Stobaugh, A. M.
Marburger, L. F.	Thomas, F.
	Van Hook, R.

### **DEGREES CONFERRED IN THE 1921 SUMMER SESSION**

### (August 27, 1921)

#### Master of Science

In Agriculture (1)

Joel Wallace Elliott, B. S., New Mexico College of Agriculture and Mechanic Arts, 1915

#### **Bachelor** of Science

In Agriculture (2)

#### In Agricultural Education (4)

Graham, W. P. Moore, T. M.

Skinner, A. A Spivey, J. R.

Α.

Romberg, L. D.

Willis, W. S.

In Civil Engineering (1)

Matney, E. A.

### SUMMARY OF DEGREES CONFERRED

(May 24, 1921, and August 27, 1921.)

Advanced Degrees: Master of Science Chemical Engineer	5 1
Baccalaureate Degrees:	
Bachelor of Science:       In Agricultural Education         In Agriculture.       In Chemical Engineering         In Civil Engineering.       In Electrical Engineering         In Mechanical Engineering.       In Textile Engineering         Doctor of Veterinary Medicine.       In Electrical Engineering	7 59 12 22 18 12 12 16
Total	143

### DISTINGUISHED STUDENTS.

At the end of each session students who have during the year made no term grade below B shall be announced as "Distinguished."

(Session 1920-21)

Freshman Class

Abrams, N. H. Black, A. R. Chapa, E.

Estill, J. F. Paterson, J. Santerre, M. L. Stubbeman, A. W. Turner, D. L.

Sophomore Class

McDonald, J. H.

Olsen, C. E.

Clark, C. R. Howell, L. D. Wilcox, G. B.

**Junior** Class

Alexander, W. R. Billingsley, B. C.

Alsmeyer, L. H. Birk, C. E. Brison, F. R. Friend, W. H.

Cole, R. J. Hanson, W. K. Jones, L. G. Knapp, W. L. Mayo, J. W.

Senior Class

Fritts, T. A. Hatley, A. E. McGee, H. W.

#### Graduate Students

Lomanitz, S. Moore, F. G. Regenbrecht F. M.

McPheeters, W. H. Westerhoff, A. G. Whitman, C. D. Woolverton, A. H.

Regenbrecht, E. M. Westcourt, F. W. Wheelock, J. H.

### MILITARY ORGANIZATION, SESSION 1921-22

The corps of cadets is organized into a regiment of Infantry of two battalions of two companies each, a band, one battalion of signal corps of three companies, one squadron of cavalry of two troops, one battalion of field artillery of two batteries, one squadron of air service of one flight.

#### **Professor of Military Science and Tactics**

#### Major L. R. Dougherty, Field Artillery, U. S. A.

#### Assistant Professors of Military Science and Tactics

Major W. H. H. Morris, Jr., Infantry, U. S. A. Major C. W. Russell, Air Service, U. S. A. Major J. F. Davis, Cavalry, U. S. A. Captain F. J. de Rohan, Infantry, U. S. A. Captain J. O. Lawrence, Cavalry, U. S. A. Captain H. J. Fitzgerald, Cavalry, U. S. A. Captain J. O. Tarbox, Infantry, U. S. A. Captain A. L. Tuttle, Infantry, U. S. A. Captain R. W. Wilson, Field Artillery, U. S. A. Captain R. W. Wilson, Field Artillery, U. S. A. First Lieutenant H. F. Searight, Field Artillery, U. S. A.

#### Military Department Staff

Master Sergeant J. V. King, U. S. A. Technical Sergeant J. C. Hyland, U. S. A., Retired First Sergeant T. Cody, U. S. A. Staff Sergeant J. Ott, U. S. A. Sergeant B. Daniels, U. S. A.

### FIELD ARTILLERY DETACHMENT

#### United States Army

Sergeants: Madden, J. D. Redding, I. K. United States Army Sergeants: Cairnes, A. E. Duke, R.

CAVALRY DETACHMENT

### CORPS OF CADETS

COLONEL, FRANKE, P. C., (Inf.), Corps Commander. MAJOR, ROPER, W. N., (F. A.), Corps Adjutant

#### THE BAND

Captain G. L. Boykin, Commanding
Second Lieutenant, B. B. Cochran
Second Lieutenant, O. L. Dockum
Second Lieutenant, F. E. Buchan
Second Lieutenant, C. E. Davidson

#### REGIMENT OF INFANTRY

#### **Regimental Staff**

Lieutenant Colonel R. W. Stiles, Regimental Commander Captain J. H. Strange, Regimental Adjutant

#### **First Battalion**

Major F. Hale, Battalion Commander First Lieutenant J. M. Reynolds, Battalion Adjutant

### Company "A"

#### Company "B"

Captain: Carruthers, R. L., Company Commander First Lieutenants: Fischer, C. F., Company Frazier, O. H., Company Second Lieutenants: Collins, L. L. Winn, W. E. Captain: Fahey, G. C., Company Commander First Lieutenant: Porter, J. B., Company

Second Lieutenants: Koehler, E. Frede, L. H.

ŧ

### Second Battalion

Major, R. C. Faulkner, Battalion Commander First Lieutenant, C. C. Crane, Battalion Adjutant

Company "C"

Pinson, H. T., Company Commander First Lieutenants: Hannaford, W. E., Company Second Lieutenants:

Captain:

Payne, W. A. Real, C.

Company "D"

Captain: Meitzen, R. J., Company Commander First Lieutenants: Cretian, P. G., Company Second Lieutenants: Goss, H. T. Lott, O. C.

### BATTALION OF FIELD ARTILLERY

Major W. W. Works, Commanding Captain L. J. Bourke, Adjutant

Battery "A"

Captain: Dieterich, A. F., Battery Commander Dieterich, A. F., Dautery First Lieutenants: Davis, Roger F., Battery Niebuhr, W. A., Battery Second Lieutenants: Baskett, J. L. Hanley, W. W.

Captain: Jones, J. H., Battery Commander First Lieutenants: Crites, E. A., Battery Knapp, W. L., Battery Second Lieutenants:

Battery "B"

Orr, J. A. Cloer, V. U.

#### SIGNAL CORPS BATTALION

Major H. M. Saunders, Commanding Captain E. G. Schlather, Adjutant Captain R. B. Steele, Technical Instructor, Radio Captain J. J. Wyly, Technical Instructor, Telegraph and Radio Procedure Captain P. W. Drummett, Technical Instructor, Telephones

Captain:

First Lieutenants: Matthes, C. L. Naschke, B. B. Second Lieutenants: Fason, E. B. Baur, L. W. A.

Company "A"

Company "B"

Dillingham, H. C., Company Commander

Captain: Dougherty, H., Company Commander First Lieutenant: Schmidt, H. E.

Second Lieutenants: Billingsley, B. C. Webber, A. T. Schaefer, Q. B.

Company "C"

Captain, Weisbrich, R. A., Company Commander First Lieutenant, Golden, C. H. Second Lieutenants: Clanton, R. W. Cochran, B. B.

### SQUADRON OF CAVALRY

Major, Ballard, W. L., Commanding Captain, Currie, J. F., Adjutant First Lieutenant, Burr, J. S., Supply Officer

Troop "B"

Troop "A" Captain: Captain: Bridges, R. E., Troop Commander First Lieutenant: Hartung, G. H., Troop Second Lieutenants: Williams, W. H. Mulvey, W. B. Dockum, O. L.

Troop "B" Captain: Giles, D. D., Troop Commander First Lieutenant: Hall, R. W., Troop Second Lieutenants: Sprague, C. T. March, J. P. Doherty, W. T.

#### AIR SERVICE

Major, Gardner, J. E., Company Commander Second Lieutenant, Parke, A. L.

### OFFICERS UNASSIGNED

Major, C. W. Thomas, Commanding

Captains: Copeland, C. M. Dreeke, H. L. Hurley, C. W. Wendt, F. T. Willard, H. B. Chambers, C. H. Harrington, M. T. Price, R. E. Webster, D. H. Fouraker, R. W. Burns, L. L. Foster, T. O. Moore, J. C. Pattillo, R. E. L. Hensarling, T. A. Atkins, H. L. Thomas, R. B. Lynch, W. W. Furneaux, W. S. Hunt, A. B. Cruickshank, J. P. Carson, C. W. Cockrell, T. J. First Lieutenants: Frazier, O. H. Rea, H. E. Reynolds, J. M. Wheeldon, H. Yater, J. A. Vaughan, R. G. Schaedel, F. W.

Malone, M. L. Knapp, J. A. Severn, J. M. Collins, L. L. Jenkins, B. L. Hamilton, W. B. Holges, L. B. Holmgreen, E. N. Jordan, W. R. Mims, M. P. Clarke, C. C. McCarty, T. J. Beesley, B. B. Jinks, L. C. Johnson, A. S. Love, W. M. Thompson, H. W. Dwyer, P. A. Bizzell, W. S. Zachry, H. B. Howell, E. J. Carlisle, J. T. Mayo, J. W. Smith, M. V. F. Simmons, W. E. Martin, J. W. Thompson, O. C. Keith, A. C. Van Tuyl, A. J. Bimmerman, P. H. Fuchs, J. Second Lieutenanis: Christopher, U. E. Gurwitz, J. A. Silvus, W. E. Steele, J. Taylor, C. L. Spreen, H. Radditt, T. G. Smith, L. A. Luckett, C. A. Freeman, E. M. Opryshek, K. Scales, R. H. Miles, W. J. Notestine, E. Patton, W. P. Tippitt, R. R. Tompkins, J. F. Byron, L. A. Dinwiddie, O. D. Harris, G. W. Masuda, B. J. Davidson, J. A. Porter, J. W. Willis, C. C. Anschicks, C. A. Brown, J. C. Grawford, J. M. Foster, W. S. Flinn, F. E. Key, D. L. Landram, A. B. Lasseter, W. E. Menke, W. M. Neely, M. J.

### MILITARY ORGANIZATIONS.

### HOWELL TROPHY

The Howell Trophy is a Texas Flag presented to the College in 1903 by Mr. W. S. Howell of Bryan, Texas. A competitive drill is held each year, during Commencement, to determine the best drilled company of infantry. This company is designated the TROPHY COMPANY and carries the flag during the following session. It is authorized to elect a Trophy Sergeant who is the Color Bearer.

### **BRANDON AND LAWRENCE TROPHY**

The Brandon and Lawrence Trophy is the yellow silk embroidered Cavalry standard presented in 1921 by Mr. George Brandon and Mr. Tom Lawrence of Bryan, Texas. A competitive drill is held each year, during Commencement, to determine the best drilled troop of Cavalry. This troop is designated the TROPHY TROOP and carries the flag during the following session. It is authorized to elect a Trophy Sergeant who is the Color Bearer.

### WALDROP TROPHY

The Waldrop Trophy is the scarlet silk embroidered Field Artillery standard presented in 1921 by Mr. A. M. Waldrop of Bryan, Texas. A competitive drill is held each year, during Commencement, to determine the best drilled battery of Field Artillery. This battery is designated the TROPHY BATTERY and carries the flag during the following session. It is authorized to elect a Trophy Sergeant who is the Color Bearer.

### WALTERS TROPHY

The Walters Trophy is a silver loving cup, presented to the College in 1921 by General Walters, Texas National Guard. This cup is presented to the Cavalry troop having the highest scholarship standing.

### ORGANIZATION OF THE ASSOCIATION OF FORMER STUDENTS

Charles A. DeWare, Brenham	President
F. M. Law, Houston	Vice-President
George P. Knox, San Antonio	Vice-President
R. T. Shiels, Dallas	Vice-President
W. B. Cook, College StationSecre	etary-Treasurer

### **Executive Committee**

Charles A. DeWare, Brenham F. M. Law, Houston George P. Knox, San Antonio R. T. Shiels, Dallas W. B. Cook, College Station J. Webb Howell, Bryan A. L. Cornell, Denison A. L. Randall, Amarillo

# INDEX

-

1	Page
Absences.	42 38
Administration Administration of State Laws	. 00 . 33
Administration of State Laws	. 73
Admission Advanced Standing	
Agricultural Experiment Station,	. 10
Agricultural Experiment Station, 29.	259
Alumni Organization	329
Athletics	43
Athletics Automobiles and Tractors, Course	e
in	. 90
Band Board of Directors	. 43
Board of Directors	. 11
Books	. 45
Buildings	. 47
	15
Cadet Exchange	. 45
Changes in Announcements	. 46
College Calendar	
Contents	1/1
Courses of Study, Four Years—	. 141
Agricultural Administration	. 89
Agricultural Education	. 88
Agricultural Engineering	. 92
Agriculture	. 88
Architecture	. 92
Chemical Engineering	. 93
Civil Engineering	. 94
Electrical Engineering	. 95
Industrial Education	. 97
Mechanical Engineering	. 96
Science	. 99
Textile Engineering	. 97
Veterinary Medicine	
Curricula	. 103
Degrees and Honors	202
Departments of Instruction	. 323
Department of—	•
Agricultural Economics	119
Agricultural Engineering	146
Agronomy	156
Agronomy Animal Husbandry	154
Architecture	.160
Biology	. 163
Biology Chemistry and Chemical Engi-	
neering	. 167
Civil Engineering	.175
Dairy Husbandry	.182
Drawing	. 184
Economics	.188

Department of—continued	Page
Electrical Engineering	
English	195
Entomology.	197
Farm Management	201
Forestry	201
Coology	200
Geology History	204
History	210
Horticulture	916
Mathematics. Mechanical Engineering.	010
Mechanical Engineering	. 210
Military Science and Tactics	224
Modern Languages	
Physics . Rural Sociology	
Rural Sociology	235
Textile Engineering	
Veterinary Anatomy	
Veterinary Medicine and Surger	y243
Veterinary Anatomy Veterinary Medicine and Surger Veterinary Pathology Veterinary Physiology and	245
Veterinary Physiology and	
Pharmacology Vocational Teaching	247
Vocational Teaching	249
Discipline Distinguished Students	38
Distinguished Students	325
Dormitories	52
Eight Weeks Course in Automobil	
and Tractory	.es 90
and Tractors.	30
Elective Studies Engineering Experiment Station.3	1 069
Engineering Experiment Station. 5	1,205
Entrance Examinations	• •
Equipment	
Expenses	
Expulsions	40
Extension Service	2, 265
Faculties—	
The College	13
The College. The School of Agriculture	$\frac{13}{22}$
The School of Engineering	22
The School of Engineering The School of Veterinary Me	20 J
icino	u- 28
icine	28
Farm. Changing Common of The	04
ree for Changing Courses or Ta	K-
Farm Fee for Changing Courses or Ta ing up New Subjects Feed Control Service	42
Feed Control Service	401
Fertilizer Control Service	
Fifth Year Courses	132
General Information	37
Government Graduate Courses	38
Graduation	100
Graduation Grounds and Garden	40
Grounds and Garden	54

Pag         3           Health         4           Historical Sketch         3           Honors         4	8 3 7
Laboratory Fees8Late Registration8Library4Location3	1 4
Method and Scope of Instruction 4 Military Organization	1 6
Non-Resident Lecturers 4	2
Officers of Administration	
Publications 44	4
Register of Students.       27         Registration       8         Religious and Moral Culture       4         Reports       4         Reserve Officers' Training Corps       3	$0\\3\\2$

						1	P	age
School of Agriculture								88
School of Engineering								92
School of Veterinary Medic	in	e		Ì	Ì	÷		99
Session								80
Sewerage System			2		2	Ì		54
Special Students			2	Ĵ.	ĵ.	į.		79
State Entomologist		•	•	•	•	•		273
State Forester	•••	•	•	•	·	·		274
Student Labor								
Summary of Enrollment	• •	•	•	ż	'n	ġ	•	322
Summer Session	•••	•	•	0	v	v	'	267
Summer Dession	• •	•	•	•	•	•	• •	201
Trips of Inspection								12
Trophies.	•	•	•	•	•	•	٠,	220
Two-Year Courses—	•	•	•	•	•	•	• •	140
Agriculture								89
Agricultural Engineering	• •	•	•	•	•	•	•	90
Engineering	•	٠	٠	•	•	•	•	98
Engineering.	• •	•	•	•	•	٠	•	
Textile Engineering	•	•	•	•	•	•	•	98
TT								00
Uniforms	•	٠	•	•	•	•	•	83
<b>T</b> 7								
Vaccination	• •	•	•	•	•	•		73
X M G A								40
Y. M. C. A								43

.