

Massena, N.Y.

MESS HALL

MECHANICAL HALL

CARPENTER SHOP

MAIN BUILDING

TWELFTH

ANNUAL CATALOGUE

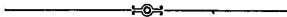
OF THE

AGRICULTURAL AND MECHANICAL COLLEGE

OF TEXAS.

RAILROAD DEPOT, EXPRESS AND MONEY ORDER OFFICE:

COLLEGE STATION, TEXAS.



GALVESTON:

Clarke & Courts, Stationers and Printers.

1888.

1888.

1889.

JANUARY							JULY						
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JUNE							DECEMBER							
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23	24	25	26	27	28	29	29	30	31					



Calendar.

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-1888.

Fall Term begins Monday, September 3d.

Anniversary Austin Society, November 16th.

National Holiday, November 29th.

Winter Term begins December 3d.

Christmas Holiday, December 21st to January 31st.

**DEC**

1889.

National Holiday, February 22d.

Spring Term begins March 4th.

Anniversary Calliopean Society, March 15th.

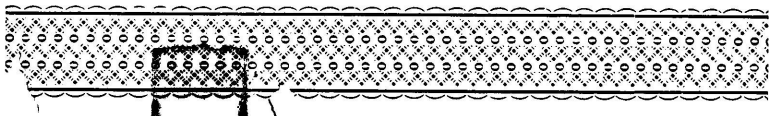
State Holiday, April 21st.

Final Examinations begin May 27th.

Commencement, Sunday, June 2d.

Exhibition of Departments and work of Students, June 3d.

Commencement Day, June 4th.







# AGRICULTURAL AND MECHANICAL COLLEGE

## OF TEXAS.

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This College owes its origin to

### AN ACT

DONATING PUBLIC LANDS TO THE SEVERAL STATES AND TERRITORIES WHICH MAY PROVIDE COLLEGES FOR THE BENEFIT OF AGRICULTURE AND THE MECHANIC ARTS.

SECTION 1. *Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,* That there be granted to the several states, for the purposes hereinafter mentioned, an amount of public land, to be apportioned to each state, a quantity equal to thirty thousand acres for each Senator and Representative in Congress to which the states are respectively entitled by the apportionment under the census of eighteen hundred and sixty; provided, that no mineral lands shall be selected or purchased under the provisions of this act.

SEC. 2. AND BE IT FURTHER ENACTED, That the land aforesaid, after being surveyed, shall be apportioned to the several states in sections or sub-divisions of sections not less than one quarter of a section; and whenever there are public lands in a state subject to sale at private entry at one dollar and twenty-five cents per acre, the quantity to which said states shall be entitled shall be selected from such lands within the limit of such state, and the Secretary of the Interior is hereby directed to issue to each of the states in which there is not the quantity of public lands subject to sale at private entry at one dollar and twenty-five cents per acre, to which said state may be entitled under the provisions of this act, land scrip to the amount in acres for the deficiency of its distributive share; said scrip to be sold by said states and the proceeds applied to the uses and purposes prescribed in this act, and for no other use or purpose whatsoever; provided, that in no case shall any state to which land scrip may thus be issued be allowed to locate the same within the limits of any other state, or of any territory of the United States, but their assignees may thus locate said land scrip upon any of the unappropriated lands of the United States subject to sale at private entry at one dollar and twenty-five cents or less, per acre; and, provided further, that not

more than one million acres shall be located by such assignees in any one of the states; and, provided further, that no such location shall be made before one year from the passage of this act.

SEC. 3. AND BE IT FURTHER ENACTED, That all the expenses of management, superintendence and taxes from date of selection of said lands previous to their sales, and all expenses incurred in the management and disbursement of the moneys which may be received therefrom, shall be paid by the states to which they may belong, out of the treasury of said states so that the entire proceeds of the sale of said lands shall be applied without any diminution whatever to the purposes hereinafter mentioned.

SEC. 4. AND BE IT FURTHER ENACTED, That all moneys derived from the sale of the lands aforesaid, by the states to which the lands are apportioned, and from the sale of land scrip hereinbefore provided for, shall be invested in stocks of the United States, or of the states, or some other safe stocks; yielding not less than five per centum upon the par value of said stocks; and that the moneys so invested shall constitute a perpetual fund, the capital of which shall remain forever undiminished (except so far as may be provided in section fifth of this act), and the interest of which shall be inviolably appropriated by each state which may take and claim the benefit of this act, to the endowment, support and maintenance of at least one college where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and mechanic arts, in such manner as the Legislature of the states may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life.

SEC. 5. AND BE IT FURTHER ENACTED, That the grant of land and land scrip hereby authorized, shall be made on the following conditions, to which, as well as to the provisions hereinbefore contained, the previous assent of the several states shall be signified by legislative acts:

First. If any portion of the fund invested, as provided by the foregoing section, or any portion of the interest thereon, shall, by any action or contingency, be diminished or lost, it shall be replaced by the state to which it belongs, so that the capital of the fund shall remain undiminished; and the annual increase shall be regularly applied without diminution to the purposes mentioned in the fourth section of this act, except that a sum not exceeding ten per centum upon the amount received by any state, under the provisions of this act, may be expended for the purchase of lands for sites or experimental farms, wherever authorized by the respective Legislatures of said states.

Second. No portion of said fund, nor the interest thereon, shall be applied directly or indirectly, under any pretense whatever, to the purchase, erection, preservation or repair of any building or buildings.

Third. Any state which may take and claim the benefit of the provisions of this act, shall provide, within five years, at least not less than one college, as described in the fourth section of this act, or the grant to such state shall cease; and said state shall be bound to pay the United States the amount

received of any lands previously sold and that the title to purchasers under the state shall be valid.

Fourth. An annual report shall be made regarding the progress of each college, recording any improvements and experiments made, with their costs and results, and such other matters, including state industrial and economical statistics, as may be supposed useful, one copy of which shall be transmitted by mail free, by each to all the other colleges which may be endowed under the provisions of this act, and also one copy to the Secretary of the Interior.

Fifth. When lands shall be selected from those which have been raised to double the minimum price, in consequence of railroad grants, they shall be computed to the states at the maximum price, and the number of acres proportionately diminished.

Sixth. No state, while in a condition of rebellion or insurrection against the government of the United States, shall be entitled to the benefit of this act.

Seventh. No state shall be entitled to the benefits of this act unless it shall express its acceptance thereof by its Legislature within two years from the date of its approval by the president.

SEC. 6. AND BE IT FURTHER ENACTED, That land scrip issued under the provisions of this act shall not be subject to location until after the first day of January, one thousand eight hundred and sixty-three.

SEC. 7. AND BE IT FURTHER ENACTED, That the land officers shall receive the same fees for locating land scrip issued under the provisions of this act as is now allowed for the location of military bounty land warrants under existing laws; provided, their minimum compensation shall not be thereby increased.

SEC. 8. AND BE IT FURTHER ENACTED, That the governors of the several states to which scrip shall be issued under this act shall be required to report annually to Congress all sales made of such scrip until the whole shall be disposed of, the amount received for the same, and what appropriation has been made of the proceeds.

APPROVED JULY 2, 1862.

And to the following amendment:

AN ACT TO AMEND THE FIFTH SECTION OF AN ACT ENTITLED "AN ACT DONATING PUBLIC LANDS TO THE SEVERAL STATES AND TERRITORIES WHICH MAY PROVIDE COLLEGES FOR THE BENEFIT OF AGRICULTURE AND THE MECHANIC ARTS," APPROVED JULY 2ND, EIGHTEEN HUNDRED AND SIXTY-TWO, SO AS TO EXTEND THE TIME WITHIN WHICH THE PROVISIONS OF SAID ACT SHALL BE ACCEPTED AND SUCH COLLEGES ESTABLISHED.

1. Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, that the time in which the several states may comply with the provisions of the act of July two, eighteen hundred and sixty-two, entitled "an act donating public lands to the several states and territories which may provide colleges for the benefit of agricul-



ture and the mechanic arts," is hereby extended so that the acceptance of the benefits of the said act may be expressed within three years from the passage of this act, and the colleges required by the said act may be provided within five years from the date of filing of such acceptance with the Commissioner of the General Land Office; provided, that when any territory shall become a state and be admitted into the Union, such new states shall be entitled to the benefits of said act of July 2nd, eighteen hundred and sixty-two, by expressing acceptance therein required within three years from the date of its admission into the Union, and providing the college or colleges within five years after such acceptance, as prescribed in this act; provided further, that any state that has heretofore expressed its acceptance of the act herein referred to shall have the period of five years within which to provide at least one college, as described in the fourth section of this act, after the time for providing said college, according to the act of July 2nd, eighteen hundred and sixty-two, shall have expired.

APPROVED JULY 23, 1865.

By joint resolution, approved November 1, 1866, the legislature of Texas formally accepted the provisions of the congressional acts, and the state received from the general government scrip for 180,000 acres of public land, the proceeds of which constitute the present permanent endowment fund of this College, and is in Texas seven per cent. gold frontier defense bonds to the amount of \$174,000.

The Legislature fulfilled its obligations by passing "An act to provide for the establishment of an Agricultural and Mechanical College of Texas," approved April 17, 1871, and by making liberal successive appropriations—aggregating \$187,000—for the buildings and equipments necessary for putting the institution in operation. And the county of Brazos secured its location within its limits by donating to the state the present College farm, a tract of 2416 acres, five miles south of the town of Bryan.

Finally, the Constitution of 1876, article VII, provided: "Section 13. The Agricultural and Mechanical College of Texas, established by the act of the legislature, passed April 17, 1871, located in the county of Brazos, is hereby made and constituted a branch of the University of Texas, for the instruction in agriculture, the mechanic arts, and the natural sciences connected therewith."

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

The Constitution of Texas provides that taxes may be raised for the maintenance and support of the College

The following act of the legislature of Texas is the law now governing the College:

## AN ACT

REGULATING THE GOVERNMENT OF THE AGRICULTURAL AND MECHANICAL COLLEGE OF TEXAS, AS APPROVED MARCH 9, 1875, AND AMENDED MARCH 30, 1881.

I. The board of directors of said College shall consist of five members.

II. The directors provided for in the preceding article shall be appointed by the governor to be selected from the different sections of the State, and shall hold office for six years, or during good behavior, and until their successors are qualified.

III. The governor shall be authorized to call said board together after their appointment, and said board shall at their first meeting elect a president of the board who shall thereafter be authorized to call said board together for the transaction of business whenever he deems it expedient, and a majority of said board shall constitute a quorum for the transaction of business.

IV. Each of the said directors shall receive their actual expenses incurred in attending the meeting of the board, to be paid out of the interest of the university fund, on accounts certified by them respectively to be correct, and approved by the governor.

V. The Secretary of State shall forward a certificate to each director within ten days after his appointment, notifying him of the fact of such appointment, and should any director so appointed and notified, fail for ten days to give notice to the governor of his acceptance, his appointment shall be deemed void and his place filled as in case of vacancy.

VI. The board of directors shall appoint the president and professors of the College and such other officers as they may think proper to put the college into successful operation, and shall make such by-laws, rules and regulations for its government as they may deem meet and proper for that purpose, and shall regulate the course of study, rates of tuition, manner of performing labor, and the kind of labor to be performed by the students, together with the course of discipline necessary to enforce the faithful discharge of all the duties of all officers, professors and students, and shall have same printed and circulated for the benefit of the people of the State and officers and students of the College.

VII. The board of directors shall elect a secretary of the board whose duties it shall be to keep in a well bound book all the proceedings had by this board, and he shall be allowed by said board such compensation as they may allow; provided, that same does not exceed five hundred dollars per annum.

VIII. The interest on the amount of one hundred and seventy-four thousand dollars in seven per cent. gold interest-bearing frontier bonds of Texas, now in the state treasury to the credit of the College, being set apart for that purpose, shall be drawn by the board of directors on vouchers audited by the board or approved by the governor and attested by the secretary, and on filing such vouchers the comptroller shall draw his warrant on the State treasury for the same, time to time as they may be needed, to pay the directors, officers and professors of the college.

The following joint resolution was passed by the Sixteenth Legislature:

JOINT RESOLUTION,

AUTHORIZING THE STATE LIBRARIAN TO TURN OVER TO THE AGRICULTURAL AND MECHANICAL COLLEGE OF TEXAS, SPECIMENS OF MINERALS AND OTHER GEOLOGICAL SPECIMENS IN THE GEOLOGICAL DEPARTMENT IN SAID LIBRARY IN CERTAIN CASES, AND COPIES OF ALL PUBLIC DOCUMENTS OF THE STATE, PUBLISHED FOR DISTRIBUTION, AND ALL APPARATUS BELONGING TO THE OLD GEOLOGICAL SURVEY.

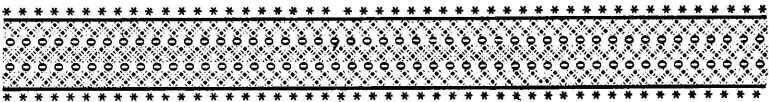
SECTION 1. *Be it resolved by the Legislature of the State of Texas*, That the State Librarian be, and he is hereby authorized and required to turn over to the Agricultural and Mechanical College of Texas, the duplicate specimens in the hands of the agent of the International Railroad Company, of all minerals and other geological specimens in the Geological Department in said Library; and copies of all public documents of the State published for distribution, and apparatus belonging to the old geological survey for the use and benefit of said College.

SEC. 2. That said Librarian be required to take an inventory of all specimens thus turned over to said College by him, and file the same in his office.

SEC. 3. The near approach of the close of this session of the Legislature, and the pressing need of geological specimens at said College for the better instruction of its pupils, creates an imperative public necessity for the suspension of the constitutional rule requiring this resolution to be read on three several days; therefore, be it further resolved, that the constitutional rule be suspended, and this resolution take effect and be in force from and after its passage.

Approved July 9, A. D., 1879.

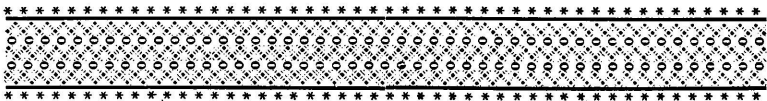




## Board of Directors.

The government of the College is vested in a Board of Directors consisting of five members appointed by the Governor of the State. They are "selected from different sections of the State, and hold office for six years, or during good behavior, and until their successors are qualified."

- C. C. GARRETT, Esq., President..... Brenham
- W. R. CAVITT, Esq ..... Bryan
- GEO. M. DILLEY, Esq..... Palestine
- MAJOR A. J. ROSE..... Salado
- HON. L. L. FOSTER, ex-officio ..... Austin  
Commissioner of Insurance, Statistics, History and Agriculture.
- LOUIS L. McINNIS, ex-officio Secretary..... College Station





# Hardaway Hunt Dinwiddie.

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PROFESSOR OF CHEMISTRY AND PHYSICS, 1879-87.

CHAIRMAN OF FACULTY 1883-87.

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## BORN:

AT LYNCHBURG, VA., OCTOBER 25TH, 1844.

## DIED:

AT COLLEGE STATION, TEXAS, DEC. 11TH, 1887.







W. B. PHILPOTT,  
Assistant Professor of English.

F. E. GIESECKE,  
Assistant Professor of Mechanics.

DUNCAN ADRIANCE,  
Assistant Professor of Chemistry and Physics.

J. F. DUGGAR,  
Assistant Professor of Agriculture.

PROFESSOR CURTIS,  
Secretary of the Faculty.

PROFESSOR WIPPRECHT,  
Librarian.

COL. T. M. SCOTT, Agent of the Board of Directors,  
Business Manager.

PROF. L. L. McINNIS, EX-OFFICIO,  
Secretary.

G. A. ROGERS,  
Assistant to Secretary.

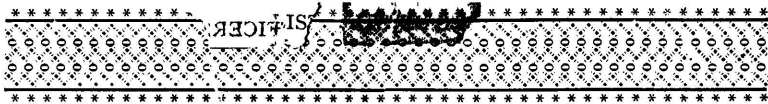
B. SBISA,  
Steward.

A. HARBERS,  
Foreman of Shops.

J. H. ALSWORTH,  
Foreman of Farm.

G. E. EBERSPATHER,  
Foreman Garden and Orchard.

J. S. FOWLKES, ESQ., BRYAN,  
Fiscal Agent.



## Post-Graduate Students.

	Course.	Postoffice.
✓ ADRIANCE, DUNCAN .....	M. S.	COLLEGE STATION
✓ GIESECKE, F. E. ....	M. E.	COLLEGE STATION
✓ PHILPOTT, W. B. ....	M. S.	COLLEGE STATION

## Undergraduate Students.

### FIRST CLASS.

	Course.	Postoffice.
✓ ALLEN, WALTER HENRY .....	B. S. A.	MARLIN
✓ BRAUN, PAUL .....	B. M. E.	SAN ANTONIO
✓ DIETERT, RUDOLPH HENRY .....	B. M. E.	KERRVILLE
✓ FORKE, LOUIS <small>not on Commencement list for 1908</small> .....	B. C. E.	NEW BRAUNFELS
✓ HOFFMANN FRITZ CHARLES .....	B. M. E.	NEW BRAUNFELS
✓ JONAS, HENRY F. ....	B. C. E.	SAN ANTONIO
✓ JOSEY, NOAH LOUIS .....	B. S. A.	LULING
✓ KNOLLE, ALBERT PAUL .....	B. C. E.	INDUSTRY
✓ KNOLLE, WILKES HERMAN .....	B. C. E.	INDUSTRY
✓ PFEUFFER, WILLIE OTTO ROBERT .....	B. S. A.	NEW BRAUNFELS
✓ RENNERT, FRANZ .....	B. S. A.	NEW BRAUNFELS
✓ SHIRLEY, ZACH MADISON .....	B. M. E.	MELISSA
✓ SMITH, ERWIN JESSE .....	B. S. A.	WOODFORD, I. T.
✓ STEWARD, WASHINGTON WORTH .....	B. M. E.	STEWARDS MILL
✓ SCHUMACHER, JOHN WILLIAM <small>not on Commencement list for 1908</small> .....	B. C. E.	NAVASOTA
✓ SWAIN, MARK SIMS .....	B. S. A.	CLARKSVILLE
✓ TILSON, PHINEAS SHIELDS .....	B. S. A.	TEXARKANA
✓ WOOD, WILLIAM MENZIE .....	B. C. E.	HILLSBORO
✓ WURZBACH, WILLIAM AUGUST .....	B. C. E.	SAN ANTONIO

### SECOND CLASS.

Explanation: M., Mechanical Course.  
 A., Agricultural Course.  
 S., Special Course.

	Course.	Postoffice.
✓ AMSLER, LOUIS DANIEL .....	M.	HEMPSTEAD
✓ BERING, JOHN HENRY .....	M.	HOUSTON
✓ BLACKSHEAR, EDWARD DUNCAN .....	M.	NAVASOTA

	Course.	Postoffice.
✓ BONDS, JAMES MILLEDGE.....	M.....	PILOT POINT
✓ BUCKMAN, CHARLES AUGUSTUS.....	M.....	DENISON
✓ BURCK, LAWRENCE BURROUGHS.....	M.....	GALVESTON
✓ BREUSTEDT, OTTO.....	M.....	NEW BRAUNFELS
✓ CAMPBELL, EDWARD MARTIN.....	M.....	BELTON
✓ CONNOR, RUFUS MERRIWETHER.....	A.....	MADISONVILLE
✓ COTTINGHAM, GEORGE RATCHFORD.....	A.....	THOMASTON
✓ DE LOACH, RAPHAEL SEMMES.....	M.....	HOCHHEIM
✓ DRISDALE, WILLIAM ELIZABETH.....	A.....	FLATONIA
✓ DUGGAN, THOS. JEFFERSON.....	M.....	SAN ANGELO
✓ FAGAN, WILLIAM RUSSELL.....	M.....	INGERSOLL
✓ FEARHAKE, JOHN D.....	M.....	WACO
✓ FLEMING, JAMES HAMILTON.....	M.....	VICTORIA
✓ FREEMAN, ROBERT RANDOLPH.....	M.....	SEGUIN
✓ HILL, BENJAMIN ALBERT.....	M.....	McKINNEY
✓ HILL, JAMES ELMORE.....	M.....	ALLENFARM
✓ HUTCHINSON, EDWARD WALTHALL.....	M.....	DENTON
✓ JONES, WALTER TOOLE.....	M.....	BELTON
✓ KEUHNE, JOHN FRANK.....	M.....	AUSTIN
✓ LEGGETT, WILLIAM WIRT KITCHEN.....	M.....	MOBETTIE
✓ MABRY, ROBERT.....	M.....	FORT WORTH
✓ MERRITT, WILLIAM BRADY.....	A.....	MELISSA
✓ MIDDLEBROOK, EARL SLOAN.....	M.....	COLUMBUS
✓ MONTGOMERY, FRANK LILLARD.....	A.....	SHERMAN
✓ NESS, HELGE.....	A.....	COLLEGE STATION
✓ NICHOLS, JOSEPH FRANCIS.....	A.....	GIDDINGS
✓ NICHOLS, JAMES ROUTTE.....	A.....	GIDDINGS
✓ PEARESON, DEE RUGELY.....	M.....	RICHMOND
✓ PLUMLY, BENJAMIN RUSH.....	M.....	GALVESTON
✓ ROGERS, BENJAMIN FREEMAN.....	M.....	JEFFERSON
✓ SCOFIELD, JOHN BRICE.....	A.....	HILLSBORO
✓ SHIRLEY, MEREDITH WILLIAM.....	M.....	ANNA
✓ SHIRLEY, WILLIAM MORTON.....	M.....	MELISSA
✓ SCHUMACHER, ROBERT HENRY.....	S.....	NAVASOTA
✓ WANGEMANN, ARTHUR EDWARD.....	A.....	INDUSTRY

## THIRD CLASS.

✓ ADRIANCE, CHARLES F.....	M.....	GALVESTON
✓ ANDERSON, WILLIAM DILWORTH.....	A.....	WICHITA FALLS
✓ ALLEN, JOHN QUINCY, Jr.....	M.....	BELTON
✓ BACKUS, ULYSSES.....	M.....	EAGLE PASS
✓ BIRD, GEORGE YELL.....	M.....	SHERMAN
✓ CAMPBELL, WILLIAM CYRUS.....	M.....	BELTON
✓ COFFIELD, WALTER HAYES.....	A.....	WICHITA FALLS
✓ CRAWFORD, JEPHTHA DANIEL.....	M.....	DALLAS
✓ CRISP, ALBERT SIDNEY.....	A.....	UVALDE

	Course.	Postoffice.
✓ CUSHING, DANIEL.....	M.....	HOUSTON
✓ DUNCAN, WILLIAM WILSON.....	M.....	QUEEN CITY
✓ FAGAN, CLARENCE ELMO.....	M.....	INGERSOLL
✓ FISHER, WILLIAM PHILIP.....	M.....	NEW WAVERLY
✓ FLYNT, HENRY CALVIN.....	A.....	WAELDER
✓ FULKERSON, JOHN ROBERT.....	M.....	BRYAN
✓ GILLESPIE, CHARLES JAMES.....	M.....	EAGLE PASS
✓ GREEN, NATHANIEL OTHO.....	M.....	SAN ANTONIO
✓ GROOS, OTTO.....	M.....	SAN ANTONIO
✓ GRAVES, MEBANE MORROW.....	M.....	HEMPSTEAD
✓ HANSCHKE, ROBERT.....	M.....	SAN ANTONIO
✓ HEARTSILL, CHAS. EDWIN.....	M.....	MARSHALL
✓ HEREFORD, JAMES STERLING.....	M.....	DALLAS
HERNSTADT, SIDNEY JOHNSTON.....	M.....	SHERMAN
✓ HOPKINS, SAM HOUSTON.....	A.....	WAELDER
✓ KYLE, JOSEPH ALLEN.....	A.....	NURSERY
✓ KNOLLE, ARNOLD AUSTIN.....	M.....	INDUSTRY
✓ LINGO, HARRY WAPLES.....	M.....	DENISON
✓ LOWRY, WILLIS EDWARD.....	A.....	SAN ANTONIO
✓ LUCKETT, JOHN HORACE.....	M.....	GALVESTON
✓ MARTIN, ANSLEY CUTHBERT.....	M.....	COLUMBUS
✓ MAYO, HOMER PLEASANT.....	M.....	PARIS
MITCHELL, CHARLES SAMUEL.....	M.....	RICHMOND
McALPINE, DUGALD.....	M.....	ABILENE
✓ OVERAND, EDWARD THOMAS.....	S.....	DALLAS
✓ POWARS, WILLIAM.....	A.....	HOUSTON
✓ ROSS, SHAPLEY PRINCE.....	M.....	HARRISON
✓ RUDASILL, WILLIAM STONE.....	M.....	SHERMAN
✓ RUNNELS, HOWELL WASHINGTON.....	M.....	TEXARKANA
✓ SCHMIDT, CHAS. L.....	M.....	LAREDO
✓ SHERBURNE, JOHN HENRY.....	M.....	DENISON
✓ SIMS, FRANK FITZPATRICK.....	A.....	FAIRFIELD
✓ SEELIGSON, ARTHUR WILLIAM.....	M.....	GALVESTON
SMITH, DABNEY MILTON.....	M.....	WHARTON
SMITH, JAMES BONNELL.....	M.....	WHARTON
✓ STALLWORTH, SANFORD JONES.....	A.....	MARLIN
✓ STOWE, JOHN NEAL.....	M.....	GALVESTON
✓ TENGG, NIC.....	M.....	SAN ANTONIO
✓ VIDOR, WALTER STEPHEN.....	M.....	GALVESTON
✓ WELHAUSEN, CLARENCE BISMARCK.....	M.....	FLATONIA
✓ WILLIAMS, ANDREW ERWIN.....	M.....	MAYFIELD
✓ WILKINS, CHARLES LEWIS.....	A.....	BRENHAM
✓ YOUNG, AUSTIN PRENTISS.....	A.....	STEPHENVILLE
✓ ZIMPLEMAN, GEORGE WALTER.....	M.....	AUSTIN

## FOURTH CLASS.

	Postoffice.
ADAMS, JOHN ROBERT.....	JASPER
AHLERS, FREDERICK.....	FRELSBURG
AIKEN, JOSEPH PERCY.....	GALVESTON
ALLSUP, NEWTON HENRY.....	WAELDER
BAKER, ROBERT LEE.....	HOUSTON
BALLI, LOUIS.....	SAN ANTONIO
BEAN, PAUL WILLIAM.....	FARMINGTON
BLESSING, JOHN THOMAS.....	DALLAS
BRINGHURST, ALBERT HENRY.....	ALEXANDRIA, LA
BRINGHURST, GEORGE AUGUSTUS.....	ALEXANDRIA, LA
BONNETT, ROBERT LEE.....	EAGLE PASS
BRODERICK, WILLIAM HALBERT.....	BRENHAM
BROSSMANN, AUGUST.....	BELLVILLE
BROWNE, ROSS.....	DELEON
CARLETON, EDWARD.....	COLUMBUS
CALLIS, JAMES FOREST.....	RICHMOND
CONNOR, WALTER COMETIUS.....	DALLAS
DAVIS, THOS. EARLE.....	BRYAN
DAVIS, WILEY.....	KOSSE
DAVIDSON, FAYETTE.....	BELTON
DICKSON, REAGAN.....	MARLIN
DE BAT, JOHN PHILIP.....	LIBERTY
DAWSON, FRANK.....	SAN ANTONIO
ECHOLS, FRANK PAUL.....	BRYAN
FIELD, HERBERT YANCEY.....	DALLAS
FOARD, ROBERT LEE, JR.....	COLUMBUS
GUENTHER, FERDINAND.....	SCHULENBERG
HALL, EDWARD FREDERICK.....	LAREDO
HARRISON, RICHARD HENRY.....	BEDIAS
HASSELL, STONEWALL JACKSON.....	BRYAN
HARBY, CHARLES LEE.....	HOUSTON
HEDER, LOUIS.....	SAN ANTONIO
HENDERSON, HARRY.....	PARIS
HENDERSON, THOMAS GOZE.....	PARIS
HENDERSON, SEYMOUR.....	JASPER
HEYE, PAUL JACOB.....	GALVESTON
HICKMAN, ROBERT.....	SAN ANTONIO
HOLMAN, WM. LUCIUS.....	PILOT POINT
HOLMES, HENRY.....	GALVESTON
HOOD, WILLIAM BLAIR.....	BLACKEN
HODDE, AUGUST.....	BENHAM
HOTTINGER, PATRICK HENRY.....	WILLS POINT
HUGHES, JOHN.....	FORT WORTH
HERTZBERG, HANS.....	SAN ANTONIO
IKARD, EUGENE FLOYD.....	FORT WORTH

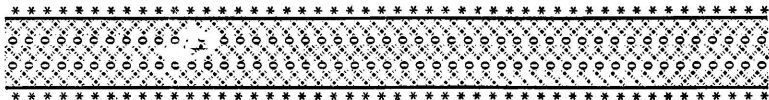
	Postoffice.
JAPHET, DANIEL AUGUSTUS.....	HOUSTON
JONES, PAUL.....	BURTON
KELLEY, THOS JEFFERSON.....	VAN ALSTYNE
KEPLER, WILLIAM JAMES.....	GALVESTON
KNOLL, STONEWALL JACKSON.....	GALVESTON
LANE, RICHARD NEWTON.....	EAGLE PASS
MARBURGER, WALTER LEON.....	CISTERN
MARTIN, MAC WILLIE.....	GALVESTON
MARTIN, CHARLES EARL.....	GALVESTON
MARTIN, CALVIN E.....	GALVESTON
MCCORMICK, GEORGE.....	COLUMBUS
MCCARTY, STEPHEN OLDHAM.....	EAGLE LAKE
MCNEILL, JAMES MURRAY.....	EAGLE LAKE
McKINNON, WILLIAM ELMA.....	SCHULENBERG
MIDDLEBROOK, ROBERT MOORE.....	COLUMBUS
MILLER, LUTHER PAUL.....	WAELEDER
MITCHELL, JAMES REGINALD.....	RICHMOND
MIX, CHARLES OTTO.....	RIO GRANDE CITY
MORRILL, CLIFFORD READON.....	ANADARKA, I. T.
MUELLER, CHARLES WILLIAM.....	NEW BRAUNFELS
NEWELL, MATT MOORE.....	RICHMOND
NICHOLS, WILLIAM LEMMON.....	DALLAS
NOBLE, JOHN HARWOOD.....	EAGLE PASS
ORTIZ, JOSE ANGEL.....	LAREDO
PLUMMER, FREDERICK BRETMAN.....	GALVESTON
PLUMMER, FERDINAND CORTEZ.....	GALVESTON
REDDEN, CLARENCE ROSCOE.....	DeLEON
ROONEY, FRANK.....	FORT STOCKTON
ROUTT, JACKSON ROFFE.....	CHAPPEL HILL
SANDBERGER, ADOLPH.....	TEXARKANA
SANDBERGER, MORRIS.....	TEXARKANA
SANDERSON, FRANK GARRS.....	SAN ANGELO
SAUVIGNET, EDWARD HENRY.....	LAREDO
SCHULTZ, CHARLES.....	SANTA CLARA
SCHWARZ, ADOLPH FERDINAND.....	SAN ANTONIO
SEELIGSON, WILLIAM AUGIER.....	LAREDO
SEXTON, CLIFFORD CLARENCE.....	MARSHALL
SIMPSON, WILLIAM DILLARD.....	DALLAS
SIMPSON, SAM PRUITT.....	EAGLE PASS
SMYTHE, THOMAS STRIBLNG.....	CORPUS CHRISTI
STERRETT, MALCOLM ORBES.....	DALLAS
STROBHARDT, JAME ALBERT.....	GALVESTON
TAJAN, LOUIS VARNE.....	LIBERTY
TRAYLOR, ROBERT ILL.....	DALLAS
THATCHER, JOHN DBERT.....	EAGLE LAKE
TOWNSEND, ROBEY MITCHELL.....	DALLAS

	Postoffice.
TURNER, THOMAS SWEENEY.....	RICHMOND
✓ UMPHREES, JOHN.....	VAN ALSTYNE
✓ WEHRHAHN, ADOLPH.....	SAN ANTONIO
✓ WEIR, HENRY.....	SAN ANTONIO
✓ WESTHOFF, WILLIAM.....	CUERO
✓ WHEALAN, JAMES JOSEPH.....	COLLEGE STATION
✓ WILSON, ORVAL PEARL.....	GAINESVILLE
✓ WILLIAMS, WILLIAM THOMAS.....	COLUMBIA
✓ WINGO, MEMORY BENSON.....	WOLFE CITY
✓ WALKER, WILLIAM DEE.....	WEATHERFORD

## SUMMARY.

Post Graduate.....	3
First Class.....	19
Second Class.....	38
Third Class.....	53
Fourth Class.....	101
Total.....	214





## Battalion Organization,

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*Commissioned Staff.*—M. S. Swain, Lieutenant and Adjutant; R. H. Dietert, Lieutenant and Quartermaster; N. L. Josey, Lieutenant and Private Secretary.

*Captains.*—W. H. Allen, P. S. Tilson, E. J. Smith, H. F. Jonas.

*Lieutenants.*—P. Braun, Z. M. Shirley, W. W. Steward, W. A. Wurzback, T. C. Hoffman, W. H. Knolle, W. O. Pfeuffer, F. Rennert.

*Non-Commissioned Staff.*—F. L. Montgomery, Sergeant Major; W. E. Drisdale, Quartermaster Sergeant.

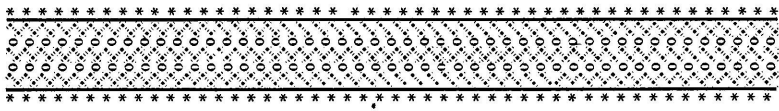
*First Sergeants.*—L. D. Amsler, J. F. Nichols, J. F. Keuhne, J. D. Fearhake.

*Sergeants.*—D. R. Peareson, R. R. Freeman, R. Mabry, E. S. Middlebrooke, J. H. Fleming, B. F. Rogers, A. E. Wangemann, G. R. Cottingham, W. R. Fagan, M. W. Shirley, J. M. Bonds, W. W. Leggett, E. T. Overand, R. S. DeLoach, E. W. Hutchinson, W. T. Jones, W. B. Merritt, L. B. Burck, T. J. Duggan, J. R. Nichols.

*Corporals.*—J. S. Hereford, W. S. Vidor, C. L. Schmidt, J. N. Stowe, G. Y. Bird, A. W. Seeligson, S. H. Hopkins, J. B. Smith, C. E. Heartsill, C. S. Mitchell, C. B. Welhauser, H. C. Flynt, J. J. H. Lockett, G. W. Zimpleman, W. D. Anderson, A. P. Young, J. R. Fulkerson, A. E. Williams, R. Hanschke, F. F. Sims.







## Objects and Present Policy.

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The act of Congress which established the State Agricultural and Mechanical Colleges defines their objects. But under that act there have been founded as many different schools as there are states. These institutions have presented a variety of educational schemes which have embraced nearly all gradations from the classical and mathematical College to the manual labor industrial school. In view of this fact it is proper to state as definitely as possible the interpretation given to the act of Congress by the authorities of this College, and the manner in which they are endeavoring to carry out its provisions.

The general object of this College is to excite and foster in the minds of our people an enthusiastic appreciation of the attractiveness and value of those pursuits by which the material development of the country is advanced.

It is the business of this College to turn the attention of our young men from the overcrowded "learned professions" to those occupations which have brought abundant wealth and power to other states, and which are beginning now to attract and well repay the services of trained young men in Texas.

These objects are sought to be attained—

By a thorough course of instruction in mathematics and natural science, with continual application of principles to work in the shops, fields, gardens, vineyard, orchard, pastures, dairies and other laboratories.

By relying upon text books as little as possible and leading the students to seek information directly from observation and experiment.

By inculcating the dignity of intelligent labor—banishing the idea that the farmer or mechanic who is worthy of the name need be any less learned than the professional man.

By inducing in the mind of the student an enthusiastic love of Nature and the study of natural laws, whereby agricultural and

mechanical processes become invested with absorbing interest, and are pursued in a spirit which leads to progress and success.

It will thus be seen that the authorities of this school adhere to the interpretation of the act founding it which has been given by the author of this act and which has been adopted by all the successful Colleges of similar origin, namely: that this College is not a trade school designed to take the place of the old apprenticeship system, but an institution where young men may receive broad and liberal training in all those sciences and arts which contribute to useful citizenship in the pursuit of all productive industries.

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it is expected that, by virtue of his superior training, he shall be able speedily to find a promotion and easily fill the highest position of honor to which his ability may lead him.

#### MILITARY INSTRUCTION.

This is embraced by law in the objects of the College, and will be given such attention as is necessary for an honest compliance with the act of Congress.

#### MARKS AND EXAMINATIONS.

Records of the standing of each student are kept by the professors of the several departments. This standing is indicated by a system of marks based upon 100 as a maximum, with decimal gradations.

Examinations are held from time to time during the session as special subjects of study may be completed, and at the end of the session upon the general courses. The results of these combined with the daily recitation marks determine the final standing of the student.

A monthly report is mailed to the parent or guardian of each student, showing his class standing, conduct and health.

#### GRADUATION.

A diploma of the college, together with the degree corresponding to the course of study pursued, will be conferred upon all students who complete either of the prescribed courses, and pass satisfactory examinations on all the branches embraced therein.

Each candidate for graduation is required to submit to the professor in charge of the leading department of his course a graduation thesis; and he may be required to read this or some other essay approved by the faculty, on commencement day, as a part of the public exercises.

To every student who completes satisfactorily any one of the optional studies—German, Spanish, Latin,—a special diploma on that subject will be granted.

Each student receiving a diploma will be required to pay \$5.00 therefor.

#### HONORS.

The three students most distinguished for scholarship and deportment in each of the classes, as determined by marks and examinations, are known as honor men, and their names appear at

the head of their several classes in the catalogue, though this rule may be modified if the number of the students in any class, or their scholarship, shall not warrant such distinction.

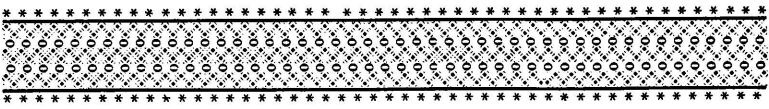
A valedictorian is elected by the members of the graduating class from their own number.

A member of the second class is chosen by his classmates to reply to the valedictorian.

Military promotion is an honor attainable by general good conduct and manly behavior, as well as excellence in studies.

No academic honor will be conferred upon any student who may be deficient in conduct for the session.





## Regular Courses of Study.

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There are two regular courses of study and practice leading to degrees and extending through four years each. They are identical for the first year, thus giving the student the advantage of elementary training in subjects that are of equal importance to every one, and affording opportunity for intelligent choice between the courses as continued separately through the three succeeding years. In the last year, or first class, there is a still further specialization by which the student may, in the agricultural course, vary his studies with reference to obtaining either of two degrees, that is, Bachelor of Science (B. S.) or Bachelor of Scientific Agriculture (B. S. A.) In the mechanical course a similar specialization is provided for by which the student is given the choice between the degrees of Bachelor of Civil Engineering (B. C. E.) and Bachelor of Mechanical Engineering (B. M. E.)

All regular students must pursue either the agricultural or the mechanical course, and there is no course of instruction which is not industrial.

The Latin language is optional and may be studied by any student who may have time for such extra study. German and Spanish are also optional except as is shown in the curricula and may be studied as subjects outside of the regular courses. There is no charge for any optional study.

In view of the great practical importance of the German and Spanish languages for business purposes in our State, special attention is given to these. A large number of the students are of German descent, and speak the language fluently.

By association with these, young men may have continual practice in conversation out of the class room as well as in it.

## AGRICULTURAL COURSE.

### FIRST YEAR—FOURTH CLASS.

	Hours per Week.		
FALL TERM	5	MATHEMATICS	Arithmetic (Robinson).
	5	ENGLISH	Elementary English (Murray), Composition and Declamation.
	3	STOCK LECTURES	Domestic Animals.
	2	HORTICULTURE	Introduction to Horticulture. Lectures.
	4	SHOP	Carpentry Work.
	4	DRAWING	Free Hand.
WINTER TERM	5	DRILL	Infantry.
	5	MATHEMATICS	Arithmetic, Algebra (Schuyler), begun.
	5	ENGLISH	Advanced Lessons in English (Murray). Composition and Declamation.
	1	STOCK LECTURES	Domestic Animals.
	1	AGRICULTURE	Elementary Agriculture (Gulley).
	3	ZOOLOGY	Vertebrate Zoology.
SPRING TERM	4	SHOP	Carpentry Work.
	4	DRAWING	Free Hand.
	5	MATHEMATICS	Algebra (Schuyler).
	5	ENGLISH	Advanced Lessons (Murray), Composition and Declamation.
	4	BOTANY	Introductory Botany (Wood).
	1	AGRICULTURE	Elementary Agriculture (Gulley).
SPRING TERM	6	PRACTICE	Shop, 2 hours; Agriculture, 2 hours; Horticulture, 2 hours.
	2	DRAWING	Free Hand.
	3	DRILL	Infantry.

### SECOND YEAR—THIRD CLASS.

FALL TERM	5	MATHEMATICS	Algebra (Schuyler).
	2	AGRICULTURE	Dairying.
	3	HORTICULTURE	Fruit Culture.
	4	ENGLISH	Advanced Grammar and Elements of Rhetoric; Compositions and Declamations.
	3	PHYSICS	Peck's Ganot.
	4	PRACTICE	Horticultural.
WINTER TERM	4	DRAWING	Free Hand.
	5	DRILL	Infantry.
	5	MATHEMATICS	Algebra finished; Geometry.
	3	AGRICULTURE	Dairying and Milk Stock.
	3	HORTICULTURE	Vegetable Culture.
	4	ENGLISH	Advanced Grammar and Elements of Rhetoric completed; U. S. History, begun; Composition and Declamation
SPRING TERM	3	PHYSICS	Peck's Ganot.
	6	PRACTICE	Agriculture, 4 hrs.; Horticulture, 2 hrs.
	2	DRAWING	Free Hand.
	5	MATHEMATICS	Geometry (Schuyler).
SPRING TERM	3	HORTICULTURE	Entomology.
	2	AGRICULTURE	Stock Breeding. Lectures.
	4	ENGLISH	United States History completed; Composition and Declamation.
	3	PHYSICS	Peck's Ganot.
	3	DRILL	Infantry Drill.
	6	PRACTICE	Agriculture, 4 hrs.; Horticulture, 2 hrs.
SPRING TERM	2	DRAWING	Free Hand.

## THIRD YEAR—SECOND CLASS.

	Hours per Week.		
FALL TERM	5	MATHEMATICS	Geometry fin; Trigonometry (Schuyler)
	4	CHEMISTRY	Inorganic Chemistry (Reusen).
	2	HORTICULTURE	Grasses and Composital.
	2	AGRICULTURE	Cattle Feeding (Armsby).
	2	ENGLISH	Essentials of English (Welsh). Essays.
	3	DRILL	Infantry.
	8	PRACTICE	Agricultural practice, 6 hours; Experimental Chemistry, 2 hours.
	2	DRAWING	Free Hand.
WINTER TERM	2	LANGUAGES	Spanish or German. Syntax begun.
	4	CHEMISTRY	Inorganic completed.
	1	VET'N'Y SCIENCE	
	4	HORTICULTURE	Economic and Systematic Botany. Lec.
	2	ENGLISH	Essentials of English (fin.) Outlines of General History (Swinton's) begun. Essays.
	2	AGRICULTURE	Cattle Feeding
	2	BOOK-KEEPING	Musleman's Book-keeping.
	2	TACTICS	Upton's Infantry Tactics. U. S. A. Reg.
	8	PRACTICE	Agricultural prac, 2 hrs; Chemical, 6 hrs.
	2	DRAWING	Free Hand.
SPRING TERM	2	METEOROLOGY	
	2	HORTICULTURE	Arboriculture and Forestry (Hough).
	4	CHEMISTRY	Chemistry of the Carbon Compounds.
	1	VET'N'Y SCIENCE	
	2	SURVEYING	
	2	AGRICULTURE	Cattle Feeding.
	2	ENGLISH	Outlines of Gen. History com. Essays.
	2	LANGUAGES	Grammar finished. Reading.
	3	DRILL	Artillery.
	2	DRAWING	Free Hand.
2	BOOKKEEPING		
8	PRACTICE	Chemical, 6 hours; forestry, 2 hours.	

## FOURTH YEAR—FIRST CLASS.

*For the Degree of Bachelor of Scientific Agriculture.*

FALL TERM	3	CHEMISTRY	Agricultural Chemistry. Lectures.
	2	GEOLOGY	Winchell's.
	3	AGRICULTURE	Cattle Feeding, Fertilizers & Drainage.
	2	ENGLISH	English Literature (begun). Essays.
	3	VET'N'Y SCIENCE	
	2	EXP. AGRIC'L'T'RE	
	10	PRACTICE	Chemical, 6 hours; Veterinary, 2 hours; Agricultural Experiments, 2 hours.
	3	DRILL	Infantry.
WINTER TERM	2	MATHEMATICS	Mechanics, Elementary (Wool's).
	4	BOTANY	Vegetables, Physiology and Histology.
	2	GEOLOGY	Winchell's.
	2	AGRICULTURE	Fertilizers and Drainage.
	3	VETERINARY	
	2	ENGLISH	English Literature (completed). Essays
	2	EXP. AGRIC'L'T'RE	
1	MILIT'RY SCIENCE	Lectures.	
10	PRACTICE	Chemical, 3 hrs; Botanical Labor, 4 hrs; Agricultural Experiments, 3 hrs.	



FOURTH YEAR—FIRST CLASS—*continued.*

	Hours per Week.		
SPRING TERM	3	MATHEMATICS	Mechanics (Wood's).
	2	AGRICULTURE	Farm Management. Lectures.
	1	ENGLISH	Lectures.
	2	PHYSIOLOGY	Huxley and Yauman's
	3	VETERINARY	
	2	ASTRONOMY	
	2	EXP. AGRIC'L'T'RE	
	2	GOV'M'T SCIENCE	
	10	PRACTICE	Chemical, 3 hours; Agricultural Experiments, 4 hours; Veterinary, 3 hours.
	3	DRILL	Infantry Drill; Target Practice.
		GRAD'T'N THESIS	

*For the Degree of Bachelor of Science.*

FALL TERM	3	MYCOLOGY	Lectures on Fungi and Plant Diseases in connection with Bessey's Botany
	2	GEOLOGY	Winchell's.
	3	CHEMISTRY	Agricultural Chemistry. Lectures.
	2	ENGLISH	English Literature. Essays.
	2	EXP. AGRIC'L'T'RE	
	3	LANGUAGES	Short Review of Grammar and Reading of Authors.
	10	PRACTICE	Chemical, 6 hrs; Botanical Labor, 4 hrs.
	3	DRILL	Infantry.
WINTER TERM	2	MATHEMATICS	Mechanics, Elementary (Wood's),
	4	BOTANY	Vegetable Physiology and Histology.
	2	GEOLOGY	Winchell's.
	2	ENGLISH	English Literature (comp.) Essays
	3	LANGUAGES	Reading Continued.
	2	EXP. AGRIC'L'T'RE	
	2	AGRICULTURE	Fertilizers and Drainage.
	1	MILIT'Y SCIENCE	Lectures.
10	PRACTICE	Chemical, 3 hrs; Botanical Labor, 4 hrs; Entomological Laboratory, 3 hrs.	
SPRING TERM	3	MATHEMATICS	Mechanics (Wood's).
	4	HORTICULTURE	Floriculture and Landscape Gardening.
	2	ENGLISH	English Lectures.
		ASTRONOMY	
	3	LANGUAGES	Reading, Comp'n and Writing Exercises
	2	PHYSIOLOGY	
	2	GOV'M'T SCIENCE	
10	PRACTICE	Chemical, 3 hrs; Experimental Work, 4 hrs; Practice in Greenhouse, 3 hrs.	
	3	DRILL	Infantry Drill; Target Practice.
		GRAD'T'N THESIS	

## MECHANICAL COURSE.

## FIRST YEAR--FOURTH CLASS.

	Hours per Week.		
FALL TERM	5	MATHEMATICS	Arithmetic (Robinson's).
	5	ENGLISH	Elementary English (Murray), Composition and Declamation.
	3	STOCK LECTURES	Domestic Animals.
	2	HORTICULTURE	Introduction to Horticulture. Lectures.
	4	SHOP	Carpentry Work.
	4	DRAWING	Free Hand.
WINTER TERM	5	DRILL	Infantry Drill.
	5	MATHEMATICS	Arithmetic (Robinson); Algebra begun (Schuyler).
	5	ENGLISH	Advanced Lessons (Murray); Composition and Declamation.
	1	STOCK LECTURES	Domestic Animals.
	1	AGRICULTURE	Elementary Agriculture (Gulley).
	3	ZOOLOGY	Vertebrate Zoology.
SPRING TERM	4	SHOP	Carpentry Work.
	6	DRAWING	Free Hand.
	5	MATHEMATICS	Algebra (Schuyler).
	5	ENGLISH	Advanced Lessons (Murray); Composition and Declamation.
	4	BOTANY	Introductory Botany (Wood's).
	6	AGRICULTURE PRACTICE	Elementary Agriculture (Gulley). Shop Work, 2 hrs; Agricultural practice, 2 hrs; Horticultural Practice, 2 hrs.
WINTER TERM	3	DRILL	Infantry.
	2	DRAWING	Free Hand.

## SECOND YEAR—THIRD CLASS.

FALL TERM	5	MATHEMATICS	Algebra (Schuyler).
	4	MECHANICS	Mechanism.
	4	ENGLISH	Advanced Grammar; Elements of Rhetoric; Composition and Declamation.
	3	PHYSICS	Peck's Ganot.
	4	PRACTICE	Wood Turning, Blacksmithing, Pipe Fitting, etc.
	4	DRAWING	Mechanical.
SPRING TERM	5	DRILL	Infantry.
	5	MATHEMATICS	Algebra finished. Geometry begun.
	5	MECHANICS	Mechanism.
	4	ENGLISH	Advanced Grammar; Elements of Rhetoric; U. S. History (Stephens'); Composition and Declamation.
	3	PHYSICS	Peck's Ganot.
	4	PRACTICE	Wood turning, Blacksmithing, Pipe Fitting, etc.
WINTER TERM	4	DRAWING	Mechanical.
	5	MATHEMATICS	Geometry (Schuyler).
	5	MECHANICS	Steam Engine.
	4	ENGLISH	U. S. History; Comp'n and Declamation
	3	PHYSICS	Peck's Ganot.
	3	DRILL	Infantry Drill
WINTER TERM	4	PRACTICE	Wood t'ng; Blksmit'g; Pipe Fitting, etc
	4	DRAWING	Mechanical.

## THIRD YEAR—SECOND CLASS.

	Hours per Week.		
FALL TERM	5	MATHEMATICS	Geometry fin; Trigonometry (Schuyler).
	4	CHEMISTRY	Inorganics (Rensen).
	2	MECHANICS	Steam Engine.
	2	ENGINEERING	Graphic Statistics. Lectures.
	2	ENGLISH	Essentials of English begun, with Essays
	2	LANGUAGES	Spanish or German Phonetics and Etymology.
	3	DRILL	Infantry.
	6	PRACTICE	Metal Working.
	4	DRAWING	Mechanical Drawing
	5	MATHEMATICS	Higher Algebra.
	4	CHEMISTRY	Inorganic completed.
WINTER TERM	2	MECHANICS	Steam Engine.
	2	ENGLISH	Essentials of English and Outlines of General History (Swinton's).
	2	ENGINEERING	Graphic Statistics (concluded); Contracts and Specifications applied to Engineering Materials.
	2	LANGUAGES	Syntax finished. Light Reading.
	2	TACTICS	Upton's Infantry Tactics, U. S. A. Reg.
	6	PRACTICE	Metal Working.
	4	DRAWING	Mechanical Drawing.
SPRING TERM	5	MATHEMATICS	Loomis' Descriptive Geometry.
	2	MECHANICS	Boilers.
	4	CHEMISTRY	Chemistry of Carbon Compounds.
	2	SURVEYING	
	2	ENGLISH	Outlines of General History. Essays.
	2	LANGUAGES	Grammar finished. Reading.
	3	DRILL	Artillery.
6	PRACTICE	Metal Working.	
4	DRAWING	Mechanical.	

## FOURTH YEAR—FIRST CLASS.

*For the Degree of Bachelor of Mechanical Engineering.*

FALL TERM	4	MATHEMATICS	Analytical Geometry.
	5	MECHANICS	Valve motion and link work.
	2	GEOLOGY	Winchell's.
	3	LANGUAGES	Short review of Grammar and reading of authors.
	3	DRILL	Infantry.
	2	ENGLISH	English Literature; Essays.
	6	PRACTICE	Higher Machinery.
4	DRAWING	Mechanical.	
WINTER TERM	5	MATHEMATICS	Analytical Geometry, 3 hrs; Mechanics, 2 hrs.
	2	GEOLOGY	Winchell's.
	2	ENGLISH	English Literature (completed), Essays.
	5	MECH. ENGIN'NG	Indicator Work.
	2	LANGUAGES	Reading continued.
	1	MILIT'Y SCIENCE	Lectures.
	6	PRACTICE	Higher Machinery.
4	DRAWING	Mechanical.	

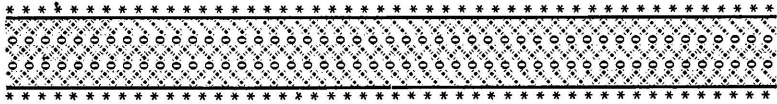
FOURTH YEAR—FIRST CLASS—*continued.*

	Hours per Week.		
SPRING TERM	3	MATHEMATICS	Mechanics (Wood's).
	4	MECH. ENGIN'RNG	Experimental work with steam engines
	1	ENGLISH	Lectures.
	2	ASTRONOMY	
	3	LANGUAGES	Reading, Comp'n & Written Exercises.
	2	PHYSIOLOGY	
	2	GOV. SCIENCE	
	7	PRACTICE	Chemical, 4 hrs; Experimental work. 3 hrs.
	3	DRAWING	Mechanical.
	3	DRILL	Infantry Drill; Target Practice.
		GRAD'T'N THESIS	

## FOURTH YEAR FIRST CLASS.

*For the Degree of Bachelor of Civil Engineering.*

FALL TERM	4	MATHEMATICS	Analytical Geometry.
	5	CIVIL ENGIN'R'G	Railroad Engineering. Shunk's Field Engineering.
	2	GEOLOGY	Winchell's
	3	LANGUAGES	Short Review of Grammar and Reading of Authors.
	2	ENGLISH	English Literature. Essays.
	4	PRACTICE	Field Practice.
	6	DRAWING	Mechanical and Architectural.
	3	DRILL	Infantry.
WINTER TERM	5	MATHEMATICS	Analytical Geometry, 3 hrs; Mechanics, 3 hrs.
	2	GEOLOGY	Winchell's.
	2	ENGLISH	English Literature, comp. Essays.
	4	ENGINEERING	Shunk's Field Engineering; Bridges and Roofs (Shreve). Lectures on Materials.
	3	LANGUAGES	Reading, continued.
	1	MILIT'Y SCIENCE	Lectures.
	4	PRACTICE	Field and Designing.
	6	DRAWING	Mechanical and Architectural.
SPRING TERM	3	MATHEMATICS	Mechanics, Wood's.
	4	CIVIL ENGIN'R'G	Shreve's Bridges and Roofs. Strength of Material.
	1	ENGLISH	Lectures.
	2	ASTRONOMY	
	3	LANGUAGES	Reading, Conversation and Written Exercises.
	2	PHYSIOLOGY	
	2	GOV. SCIENCE	
	7	PRACTICE	Chemical, 4 hrs; Designing and Strength of Material [testing machine] 3 hrs.
	3	DRILL	Mechanical and Architectural.
3	DRAWING	Infantry Drill and Target Practice.	
		GRAD'T'N THESIS	

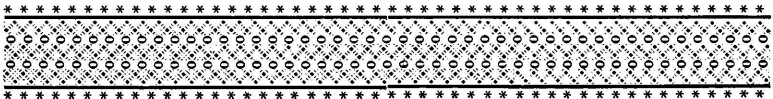


## Schedule of Recitations.

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In order to show definitely the manner in which the time of students is employed, the following schedule of daily work is appended.

Studies falling in the same hour are in different courses. Instructive work in the shops, fields, garden, laboratories or creamery is in this schedule designated as "practice." The larger classes are, as necessity may arise, divided into sections which may recite or work in the several departments at the same time under different instructors.



FIRST CLASS.

HOURS.	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.
9-10	Mathematics.	Governmental Science.	Mathematics.	Governmental Science.	Mathematics.
10-11	Astronomy.	Mathematics.	Astronomy.	English.	Astronomy.
11-12	Mechanical or Civil Engin'g.	Physiology.	Mechanical or Civil Engin'g.	Physiology.	Mechanical or Civil Engin'g.
12-1	Agriculture or Horticulture.	Agriculture or Veterinary.	Agriculture or Horticulture.	Agriculture or Veterinary.	Agriculture or Horticulture.
2-3		Spanish.		Spanish.	
3-4		German.		German.	
2-5	Practice.		Practice.		Drawing or Practice.
2-4			Drill.		Drill.
5					

SECOND CLASS.

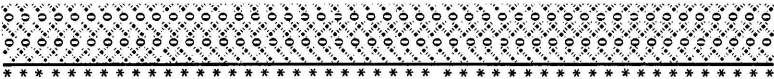
9-10	Mechanics.	German.	Mechanics.	German.	Mechanics.
9-10	Chemistry.	Business Law.	Chemistry.	Chemistry.	Chemistry.
10-11	Agriculture.	Chemistry.	Engineering.	Agriculture.	Engineering.
11-12	English.	Agriculture.	English.	Spanish.	Engineering.
12-1		Spanish.		Spanish.	
12-1		Horticulture.		Horticulture.	
3-4		Book-keeping.		Book-keeping.	
3-4	Practice.		Practice.		Drawing.
2-5			Drill.		Drill.
2-4					
5					

THIRD CLASS.

8-10	Mechanical Drawing.	Mechanics.	Mechanics.	Free Hand Drawing.	Mechanics.
10-11	Mechanics.	Mathematics.	Mathematics.	Mechanics.	Mathematics.
11-12	Physics.	Mathematics.	Mathematics.	Mathematics.	Physics.
12-1	Horticulture.	Agriculture.	Horticulture.	Physics.	Agriculture.
2-3	English.	English.	English.	Horticulture.	English.
2-3		Practice.		Practice.	English.
2-5					Drill.
5	Drill.		Drill.		Drill.

FOURTH CLASS.

8-10	Practice.	Drawing.	Practice.	Practice.	Practice.
9-10	Horticulture.	Horticultural.	Agriculture.	Horticulture.	Horticulture.
11-12	Mathematics.	Mathematics.	Mathematics.	Mathematics.	Mathematics.
12-1	English.	English.	English.	English.	English.
3-4					Drill.
5	Drill.		Drill.		Drill.



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## Post-Graduate Courses.

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The Post Graduate degree of M. S. (Master of Science) will be given to those who have pursued the Post-Graduate studies for two years and have passed satisfactory examinations thereon and submitted an approved thesis.

It is required for admission to study for this degree that the candidate be a graduate in one of the courses, or pass satisfactory examinations upon subjects embraced in them.

Students for this degree are under the general regulations of the College, but are not subjected to military discipline; they may, however, be required to assist in keeping order in the barracks.

A student desiring to enter for this degree must select his course of study from the following prescribed subjects. This selection must be submitted to and approved by the Faculty, and no change can be made without approval of Faculty.

The Faculty will require a sufficient number of subjects to give the students full employment.

### AGRICULTURE.

Farm economy, drainage and irrigation, studies in selection and cross-breeding to improve farm crops and forage plants; practical work in the management of farm and stock; original investigation by the student in any branch of agriculture.

### MECHANICAL ENGINEERING.

Continuation of fourth year's work, and Steam Engine (by Rankine) begun in first year. Experimental work in the machine shop; Steam Engine (by Rankine) completed; special subjects, and original designing, in second year. Practice same as in fourth year.

### HORTICULTURE.

Propagation and improvement of cultivated plants; fertilization and cross fertilization; forestry; pomology; management of

glass houses; entomology continued, including anatomy of types; laboratory work on classification; special study of insecticides and management of an apiary; experimental work throughout the two years in hybridizing, nursery work and management, and commercial gardening; assisting in other experimental work.

#### BOTANY AND ZOOLOGY.

Grasses continued, reading, laboratory work, and field experiments; mycology, thesis on special work and original research with the microscope; microscopic work in plant history, including micro-chemistry and mounting; development of mosses and ferns; drawings and readings; collections of 100 plant specimens; vertebrate and invertebrate zoology; reading and microscopic work; animals and plants under domestication; economic botany.

#### EXPERIMENTAL AGRICULTURE.

Review of Jaws and Gilbert's work at Rothamstead; review of French and German experiments; review of experimental work in the United States; practice in experimental feeding; practice in field work.

#### CIVIL ENGINEERING.

Strains in frame structures; arches; abutments and retaining walls; theory of the strength of materials and the calculation of the sizes of tie-rods, beams and columns; water supply and pumping machinery; designing and drawing; architectural drawing.

#### PHYSICS.

Sound, light, heat and electricity, and work in the laboratory.

#### MATHEMATICS.

Descriptive geometry, Church; Differential and Integral Calculus, Church; Analytical Mechanics, Wood; curve tracing.

#### CHEMISTRY.

Qualitative analysis, toxicology and technology; theoretical and organic chemistry, agricultural chemistry, standard reference and text books; current chemical literature. Final thesis on original work.

#### GEOLOGY AND MINERALOGY.

Volumetric analysis, assaying, metallurgy; examination of slags and fluxes and furnace products; instruction and practical



work in economic geology, prospecting, examination and separation of ores.

The work in this department will be largely practical, but standard books and current literature will be constantly used.

#### **MODERN LANGUAGES.**

The course in this department will embrace such studies and exercises as will lead to a thorough and practical knowledge of either German or Spanish.

#### **ENGLISH.**

Advanced studies in English.

#### **VETERINARY SCIENCE.**

This course will be established during the next session.





## Special Courses.

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Each of these courses is intended to be short and eminently practical, and is not open to any student who may wish to enter it merely as a means of getting through with his education in as short a time as possible. They are for mature young men who may desire instruction in the practical application of the principles involved in the occupations to which these courses apply; young men who may have already received sufficient general elementary training to enable them to take up and pursue technical study in these occupations. Admission to the short courses will therefore be strictly at the discretion of the faculty.

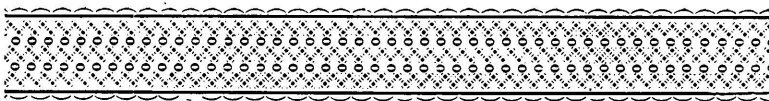
Those who may wish to take these courses are requested to correspond with the chairman of the faculty.

Academic requirements for admission are same as for the fourth class, and the student must be eighteen years of age.

These courses will occupy two years, and students showing satisfactory progress will, at the end of that time, receive certificates of proficiency.

Students may enter these courses at any time. Students in these courses will have the privilege of pursuing any studies in the regular courses, the selection of studies to be approved by the faculty.

Special courses in the following subjects are provided: Agriculture, Horticulture, Dairying, Carpentry, Blacksmithing, Machinery, Chemistry, Drawing, Surveying.



## Information Concerning Admission.

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### REQUISITES OF ADMISSION.

To enter the College an applicant must be in his sixteenth year, or at least must have attained a degree of physical and mental advancement corresponding to that age. He must be free from contagious or infectious disease or any deformity that would unfit him for the performance of his duties as a student of this College. He may be required to furnish evidence that he has not been dismissed from another institution of learning and that his moral character is good.

The mental attainments necessary for entering upon the courses of study comprise a fair knowledge of arithmetic as far as proportion, of descriptive geography, and of elementary English grammar and composition.

The reputation of this College for good discipline has caused parents in some instances to apply for admission for boys that had proved unmanageable and thoroughly vicious at other institutions. It is desired that such applications be not in the future presented.

The proper time—that is the BEST time, for entering the classes is at the beginning of the scholastic year. Students are admitted, however, at any other time in the year, but if not fully prepared in the previous work of the class, they are then obliged to make up their deficiencies by *extra efforts* during the term.

### MATRICULATION.

Upon arrival at the College young men intending to enter will report as soon as possible to the Chairman of the Faculty. From him they will go to the several professors for enrollment in classes, and to the commandant for assignment to company and quarters.

Upon entering the College every student will be required to state upon honor that he has no firearms or other deadly weap-

ons in his possession, or if he has such to deposit them with the Chairman of the Faculty.

As there is no hotel at the station, new students or other strangers would be saved much embarrassment by arriving on a day train.

Persons stopping in Bryan can readily obtain conveyance by carriage to the College, and there is a telephone by which messages can be sent.

Prepaid telegraphic dispatches are forwarded to the College by telephone.

**EXPENSES FOR SESSION OF NINE MONTHS.**

Incidental fee.....	\$5 00
Physician's fee.....	5 00
Maintenance, Fall Term.....	45 00
Maintenance, Winter Term.....	50 00
Maintenance, Spring Term.....	45 00
Total.....	<u>\$150 00</u>

In addition to the above a charge of \$5 will be made to cover possible damage to the College property, and the cost of chemicals and other material used by the students.

Incidental and physician's fees are payable on entrance, whether at the beginning of or during the session, and cannot be refunded.

Maintenance includes board, fuel, washing, lights, room-rent, bedsteads, mattresses, pillows, tables, washstands, chairs, wardrobes, buckets, basins and slop cans, all of which the College furnishes.

Each student is required to bring with him, and keep himself constantly supplied with, a sufficient supply of bed clothing for his comfort, towels, etc., and underclothing sufficient for one year's wear.

Students are required to take their meals at the Steward's Hall, and at each meal a professor will be present.

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

A student once entered for the term and having paid for that term or the balance of it, as required by the resolution of the Board of Directors, shall forfeit all claim to said payment in case

of voluntary withdrawal from the College before the expiration of said term, except in case of sickness.

If on any account the prompt payment of the dues should be delayed, the chairman will mail to the parent or guardian of the student of the following notice:

**NOTICE TO PARENTS AND GUARDIANS.**

Your attention is respectfully directed to the following resolution passed by the Board of Directors of the Agricultural and Mechanical College of Texas:

RESOLVED, That it shall be the duty of the Treasurer to notify parents and guardians ten days after the date upon which a term payment is due, that if same is not paid within twenty days thereafter (thirty days from time the payment was due), the student so in arrears will be dismissed.

Louis L. McINNIS, Secretary of the Board.

Payment due.....	188..	Notice sent.....	188..
	Limit expires .....		188..

All communications in reference to accounts of students should be addressed to the chairman of the faculty.

**UNIFORMS, BOOKS AND STATIONERY.**

A neat uniform of cadet grey cloth is furnished here at a cost of from \$15 to \$20, depending on size.

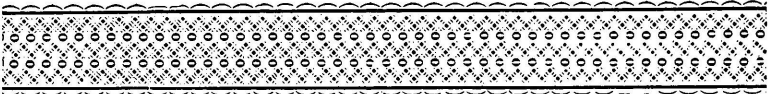
These uniforms are made by contract, and students are required to purchase from the contract tailor in order that uniformity may be secured in the cut and quality of the clothing, and that parents may be protected from imposition by irresponsible persons. The contract suits are carefully inspected by the commandant of cadets and thus the full value of money expended for them is secured.

Books and stationery may be obtained here. They will probably cost about \$5 to \$15 per session.

**BEGINNING OF THE SESSION.**

The thirteenth annual session will open Monday, September 3d, 1888, and close on Tuesday, June 4th, 1889.

Students should not arrive at the college earlier than Saturday, September 1st.



## Departments of Instruction.

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### DEPARTMENT OF MATHEMATICS.

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PROFESSOR L. L. M'INNIS, A. M.

ASSISTANTS, { R. F. SMITH,  
GUY CARLETON.

Instruction in this department will have for its aim, to lead the student into the habit of thoroughly analyzing every subject. He will be taught to accept nothing as true in mathematical science, unless rigidly demonstrated, and he will be required so to demonstrate all rules and principles before applying them to the solution of problems. He will be made to realize the importance of this science in the practical affairs of life, as well as its value in strengthening and disciplining the intellectual powers, by carefully selected and original problems throughout the course, involving the application of its principles to the arts, industries and applied sciences of to-day.

The principles enunciated and established in the texts will be constantly supplemented by oral and written lectures tending to show their application.

In the application of mathematics to mechanics the student will be taught the doctrine of forces—their composition and resolution, laws of gravity, laws of motion, etc. A series of lectures on the history, utility and philosophy of mathematics will be given.

For instruction in geometry, plane, solid, spherical, descriptive and analytical, the department is supplied with a complete set of Schröder's mathematical models, imported from Germany for this institution.

#### TEXT AND REFERENCE BOOKS.

*Arithmetic*, Venable and Robinson, Brooks' Philosophy of Arithmetic; *Algebra*, Schuyler, Wentworth, Davies; *Geometry*, Schuyler, Wentworth, Venable; *Trigonometry and Mensuration*,

Schuyler and Davies; *Surveying*, Schuyler, Wentworth, Davies and Gillespie; *Analytical Geometry*, Church, Peck, Bowser, Howison and Wood; *Calculus*, Church, Bowser, Byerly and Peck; *Mechanics*, Wood, Peck, Smith and Bartlett; *Descriptive Geometry*, Church and Warren; Davies Dictionary of Mathematics, Bledsoe's Philosophy of Mathematics.

#### LOGIC AND GOVERNMENTAL SCIENCE.

Students of the first class have two recitations per week; during the Fall and Winter Terms in logic, and during the Spring term in Governmental Science.

#### TEXT AND REFERENCE BOOKS.

*Logic*, Jevon, Schuyler, McCosh; *Governmental Science*, Young, Andrews, Townsend, Nordhoff. Lectures.

### DEPARTMENT OF ENGLISH AND HISTORY.

PROFESSOR W. L. BRINGHURST, A. M., PH. D.

ASSISTANT, W. B. PHILPOTT.

The general aim of instruction in this department is to make thorough, practical English scholars.

The following subjects are taught:

I. *English Language and Literature*.—Embracing the grammatical and rhetorical structure of the language, its history and development, synonyms and comparative philology. That the student may thoroughly master the principles of his mother tongue, daily recitations are accompanied with practical exercises on the blackboard in writing, spelling, analyzing and criticising. Constant practice in declamation and composition is required.

The historical development of English literature is carefully traced, and the student is made as familiar with the works of our great authors in poetry, history, philosophy, fiction, science, etc., as the time allotted will permit. Lectures are delivered to the classes, and original reviews, essays and compositions are required.

*Text Books*.—Murray's Language Series; Patterson's Advanced Grammar and Rhetoric; Walsh's Essentials of English; Meiklejohn's English Literature.

II. *History*.—The object of this course is to give the student a thorough knowledge of the history of his own country and of England, and an outline of the world's history, ancient and modern. Special attention is given to the history of the people, and of the gradual development of the civilization, power, laws, constitution and political system of our republic. The department is well supplied with wall-maps, globes, etc.

*Text Books*.—Stephen's History of the United States; Fisher's Outlines of Universal History.

For reference and private reading, the College Library supplies an admirable collection of histories, dictionaries, biographies and encyclopedias, besides works of poetry and general literature.

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## DEPARTMENT OF LANGUAGES.

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PROFESSOR RUDOLPH WIPPRECHT.

This department comprises Latin, as an optional study, and either the German or Spanish languages as elective or optional, as shown in the curricula.

*Second Class*—German or Spanish.—Grammar, together with translation, both oral and in writing. Conversational exercises.

*First Class*—German or Spanish.—Studies of the second class to be continued. Reading of select authors. Outlines of literature of either language

The course in general will be rendered instructive by lectures to be interspersed on the philosophy of language; on the comparative philology as far as the English is concerned; on geographical, historical, ethnological, biographical, and other congenial subjects, both interesting in themselves, and of importance for any well trained college student to be conversant with.





## DEPARTMENT OF MECHANICAL ENGINEERING.

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PROFESSOR R. H. WHITLOCK, M. E.

ASSISTANT, F. E. GIESECKE.

This department is intended so to combine theory and practice that, after deriving a theoretical knowledge of a subject from the text books of standard writers, the student may go into the shop and apply that knowledge in a thoroughly practical manner. With this theoretical preparation the mind grasps the salient points and avoids the difficulties of the more practical part of the work. The work is carried on by the aid of practice in the shops and drawing room, and by text books and lectures.

First the machinery of transmission is taken up and discussed, and especial attention paid to shafting, belts, speed pulleys, gear wheels and kindred subjects. These lead the way to the higher forms of mechanism, and later the steam engine in its general principles and various forms is studied and discussed.

As stated above, the work in the class room is supplemented in every possible way by showing the student the practical application of these principles in the machinery used at the College and neighboring places.

Before graduating from this department, each student must place in the hands of the professor in charge, a thesis which treats of some mechanical subject, and which shall be declared satisfactory by him.

### SHOPS AND SHOP WORK.

SUPERINTENDENT, PROFESSOR R. H. WHITLOCK.

FOREMAN, A. HARBERS.

The carpenter shop is situated in a two story frame building 83x34 feet. Here each student has his own set of tools to care for, use, and keep in order. The machine shop is a one story brick building 80x35 feet, and in connection with it is the blacksmith shop 20x35 feet.

Here the student receives practical and systematic instruction, beginning with the simplest exercises and gradually working up to those of a more difficult character which involve greater skill. Each of these, when finished, must reach a certain standard of perfection before the learner can pass on to the next, thus insuring a knowledge of the principles by which the work is accomplished. The wood-working department is subject to the

same requirements, and here, as in iron-working, the first exercises are of the simplest character, while the latter ones demand increased skill on the part of the workman. Our tools are furnished by the College, but the student should furnish a two-foot rule and a pair of overalls, both of which may be obtained in Bryan.

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## DEPARTMENT OF AGRICULTURE.

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PROFESSOR GEO. W. CURTIS, M. S. A.

ASSISTANT, J. F. DUGGAR.

FOREMAN OF FARM, J. H. ALSWORTH.

The design of the course in agriculture is to furnish, not only close, practical instruction in all branches of progressive farming, but also a broad and liberal education, fitting the student for the higher demands of agricultural industry and the full responsibilities of educated citizenship. For a complete outline of studies pursued, see curricula on preceding pages; the more important branches are briefly noticed below.

In the study of domestic animals, careful attention is given to the merits and demerits of different breeds; origin, description and characteristics being discussed specifically for each breed, with general notes on care, management, etc. pertaining to all.

Dairying is given considerable prominence. The creamery building is thoroughly furnished and fitted with the latest improved machinery and apparatus for the practical instruction of students, who perform the entire work—so far as their time will allow—under the immediate supervision of the professor or his assistant.

The aim is to thoroughly fit our students for taking charge of and operating creameries, as well as managing dairy farms, in any portion of the state.

In stockbreeding the aim is to acquire familiarity with the principles of selection, feeding, etc., to change or perpetuate characters, and the laws governing the transmission of qualities. Especial attention is given to the breeding, selection and management of dairy stock.

The study of cattle feeding is pursued in the natural order of topics discussed, taking up first, the general laws of animal

nutrition, second, the chemical composition of feeding stuffs; third, the feeding of farm animals. In this way a thorough knowledge is acquired of the principles and reasons upon which profitable cattle feeding is based, either upon the range, or in the yard.

Practical work is required of each student in the feeding of animals for different purposes, and comparison of different fodders for the same purpose.

The senior class devote the year to the study of drainage and irrigation, fertilizers and farm management. The latter includes comparison of the different branches of agriculture, rotative and successive cropping, management and economy of labor, selection and care of machinery, care of stock, planting and harvesting cotton, grain and forage crops, and general suggestions as to profit and loss in farming.

Practice is given regularly from four to eight hours per week throughout the course.

The fourth class conduct field tests with different crops and fertilizers, performing the entire work of planting, fertilizing, cultivating and harvesting in a field set apart for this purpose.

The third and second classes perform all work in connection with the creamery as previously stated.

The first class practice consists in the conduct of field and feeding experiments and such other work as will best fit them for agricultural pursuits.

In addition to the above regular practice all students are permitted and encouraged to work one or two afternoons each week—at a maximum rate of 10 cents per hour—at whatever work may be found to do. Students avail themselves of this opportunity to defray a portion of legitimate college expenses without detriment to their studies.

We would call especial attention to the supplementary studies found in the agricultural course—among them, veterinary anatomy and medicine, horticulture, botany, entomology, agricultural chemistry, surveying and leveling, book keeping, laws of business and meteorology.

The library is well supplied with standard works of reference on all branches, which students may consult at any time, in addition to the regular text books used in the course.

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## DEPARTMENT OF EXPERIMENTAL AGRICULTURE.

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PROFESSOR F. A. GULLEY, M. S.

The work in this department will embrace lectures on the development of the application of science to practical agriculture and experimental agriculture.

The reports of the agricultural experimental station will be used for reference.

Students will have regular practice in the experiment station.

The general aim of the instruction and practice in this department, is to familiarize the student with the knowledge gained through experimental work in agriculture, and to fit him to make investigations in a practical way after he leaves college.

The work in progress in the agricultural experiment station connected with the College will enable students to become thoroughly posted in the management and in the details of station work.

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## DEPARTMENT OF MILITARY SCIENCE AND TACTICS.

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PROFESSOR GUY CARLETON, SECOND CAVALRY, U. S. A.

The instruction in this department is in conformity with the act of congress which, in endowing this and similar institutions, stipulates that military tactics shall be taught.

An officer of the regular army is detailed by direction of the President of the United States to carry out this requirement of the act in question, and the necessary arms, accoutrements and ammunition are furnished by the general government without cost to the College.

During the fall and spring terms practical military instruction is given in infantry and artillery drills, rifle firing, and the duties of guards and sentinels.

All military exercises, excepting the necessary guard, are suspended during the winter term. A course of lectures is delivered to the first class embracing the elements of the following technical subjects: Duties of guards and sentinels, military signaling, military engineering, military law and the art and science of

war. During this term also the second class receives instruction, in the section room, in infantry tactics and the United States Army Regulations.

While the instruction in this department is as thorough as practicable in the limited time allowed, in liberal compliance with the requirements of the act of congress endowing the College, it is not proposed to graduate soldiers. The military exercises are designed principally to straighten and strengthen the students, to give them an erect carriage and graceful bearing, rather than to make them proficient in military evolutions.

The military system is the means of enforcing discipline and securing regularity in the performance of academic duties, and tends to inculcate in the students that habit of truthfulness and manliness of character which characterize young men as gentlemen.

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#### DEPARTMENT OF CHEMISTRY AND MINERALOGY.

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ACTING PROFESSOR, H. H. HARRINGTON.

ASSISTANT, DUNCAN ADRIANCE.

##### CHEMISTRY.

The subject of chemistry will be introduced by the study of inorganic chemistry, passing into a brief course of organic chemistry. The attention of the students will be directed to the historical development of the science, and to the phases of chemical theory as at present understood by chemists.

During this part of the course there will be constant practice in the use of symbols and chemical calculations. When possible students will make illustrative experiments for themselves. Spécial attention will be given to technical processes, and the construction and working of apparatus for the manufacture of chemicals.

After the general principles of chemistry are understood, the study will be supplemented by practical work in the laboratory. This work will commence with the use of the blow-pipe, simple glass working, and fitting up of apparatus, continuing into qualitative analysis, wet and dry, quantitative analysis, both gravimetric and volumetric.

Advanced students will be required to investigate special subjects in original work, and present their results to the professor.

Agricultural students will spend their time mainly in agricultural analyses, consisting of the examination of soils, fertilizers, manures, feed stuffs, and their artificial digestion, marls, ashes, etc. Advanced mechanical students will be given subjects in manufacturing chemistry.

#### MINERALOGY.

The course in mineralogy will be made as thorough as time will allow. Work in this department will commence in the second class, during which time much attention will be given to the systematic examination of minerals. This study is continued in the first class in connection with geology; special attention being given to economic geology, that of coal, iron, copper, clays, and the precious metals. Volumetric analysis, assaying, metallurgy and technology will receive from the mechanical students as much attention as their time will permit.

It is the object of the department of chemistry and mineralogy to make the course of study thorough and practical, and to equip the student with information which will be at once available on leaving college.

The laboratory consists of five rooms, two of which are large ( $46 \times 22\frac{1}{2}$ ). One room is fitted up for about twenty students in qualitative analysis, another room for advanced students in qualitative analysis; one of the large rooms for a private laboratory, capable also of accommodating special students doing original work. In one corner of this room is a small glass room for analytical balances. One room is used as a recitation room, and another as a store-room for chemicals, and as a photographic dark room.

#### MEANS OF ILLUSTRATION AND WORK.

The laboratory is well supplied with chemicals, minerals, glass, porcelain, and platinum ware, gas holders and generators, filter pumps, including Geissler's, Sprengle's, Johnson's, with assay furnaces, muffles, crucibles, etc.; combustion furnaces, arrangement for Kjeldahl's nitrogen determinations; Hempels' and Elliot's gas apparatus; a Soleil Laurent saccharimeter, colorimeter, reflecting goniometer, spectroscope; Crouch's test binocular microscope with fittings, etc. In short, the laboratory is well supplied with the latest improved apparatus needed in well established methods of analytical work, and original investigation.

Remen's Chemestries are used as text books in chemistry, and Winchell's and Nason's works, as text books on geology and mineralogy. There is a small library of standard books of reference constantly accessible to students working in the laboratory.

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## DEPARTMENT OF HORTICULTURE AND BOTANY.

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ADJUNCT PROFESSOR T. L. BRUNK, B. S.

This department aims to teach the cultivation, propagation and improvement of plants based upon botanical science. The student applies his knowledge of related science to the various operations of the nursery, orchard and garden.

### HORTICULTURE.

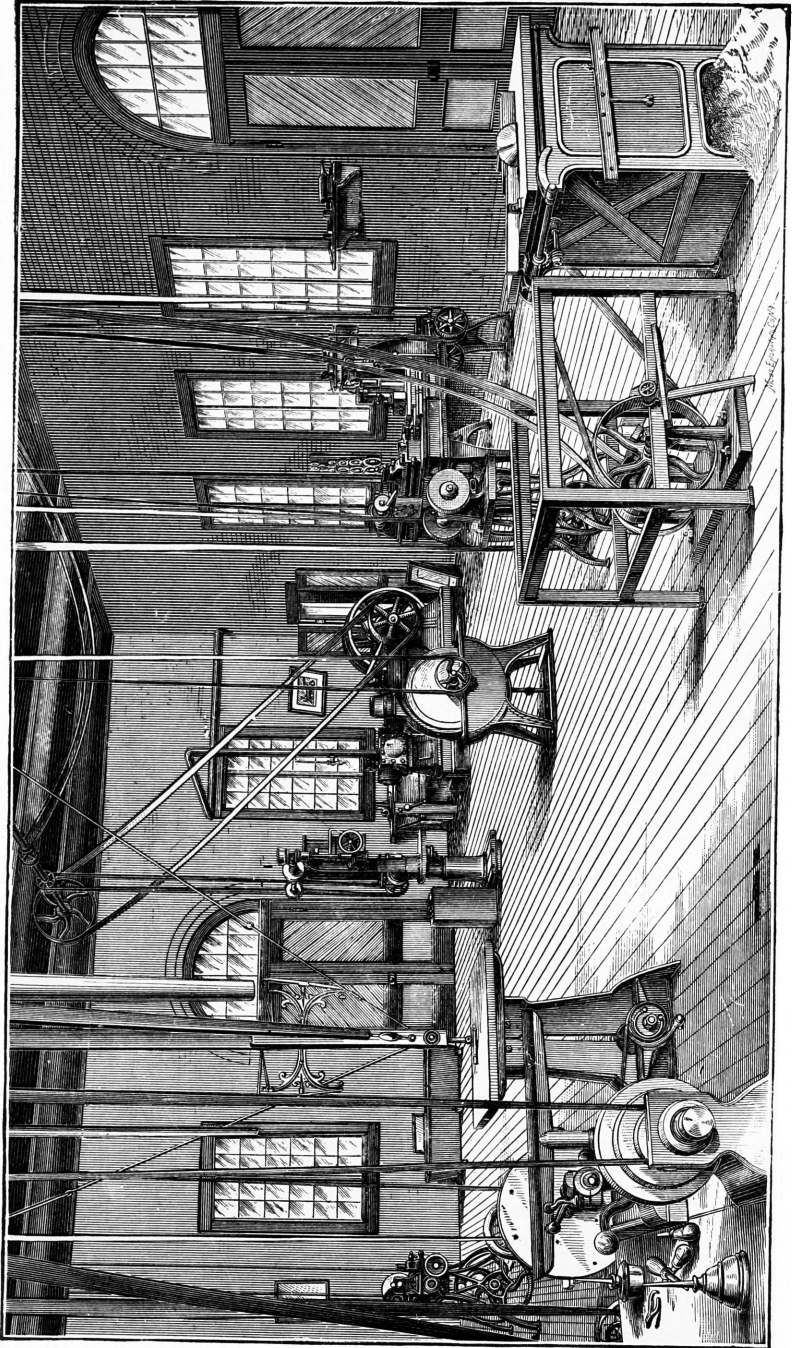
The study of horticulture is pursued by lectures and recitations in the class room, supplemented by observations and practice in the orchards and gardens. It is treated as an art based upon science. The instruction begins with a course of introductory lectures the fall term of the first year, which discuss the structure, uses and modes of growth of the parts of a tree; propagation by budding, grafting, cuttings, layering, etc.; principles of pruning grape, peach and pear; hot beds, cold frames, flower pits; planting of seed, trees and vines; family gardening, and the common insects injurious to garden and orchard, and how to destroy them. These lectures are followed by practice in the orchards and gardens in which the student performs the operations considered in the lectures.

A course of lectures and recitations throughout the second year is devoted to fruit culture and vegetable culture.

The course in fruit culture embraces a study of the several kinds of both large and small fruits, their origin, history, methods of propagation, pruning, training, harvesting and marketing; their insect enemies and fungus diseases. Special attention is given the peach, pear and grape. Incidental topics discussed, are implements, fertilizers, draining and irrigation, nursery management, commercial fruit farms and vineyards, methods of preserving fruits, wet and dry, and many other topics. Class-room instruction is supplemented by practical lessons in budding, grafting, pruning, training, transplanting, cross-fer-







INTERIOR OF MACHINE SHOP

tilizing, propagating, etc., such that the course will fit young men well for the nursery or fruit growing business.

The instruction in vegetable culture includes kitchen and market gardening and seed growing. Among the subjects considered are locations of garden, laying out for special purposes, special preparation of soil, irrigation, composts, fertilizers, implements, selection of seed, construction and management of forcing houses, cultivation of the different vegetables, how to start and manage a market garden, growing seed for market, etc. Students are required to test the vitality and germinating power of different seeds, and to aid in performing all instructive operations in the gardens during the winter and spring terms.

A course in forestry and arboriculture is given in the spring term of the third year. In this course special attention is given to the value of forests, the history of forestry, European methods of forestry management, ornamental planting, seasoning and preservation of wood, hedges, screens and shelter belts, best methods of propagating and planting different varieties of trees, etc. Students are required to propagate young stock, do instructive work in the tree nursery and arboretum just starting.

The last term of the fourth year is devoted to practical floriculture and landscape gardening. This subject includes management of plants for winter blooming, out-door flower gardening, commercial flower gardening, management of green houses, lawns, walks and drives, etc. The course requires work in the green house, and the whole subject is intended to fit young men for the growing business of floriculture.

#### BOTANY.

The instruction in botany begins with the spring term of the first year. This term is devoted to introductory botany, in which the student studies the gross anatomy and the terminology of the parts of plants and their classification. Each student is required to mount forty dried specimens which he has determined.

During the third and fourth years further instruction is given in each of the following subjects: Grasses and compositæ, economic botany, vegetable histology and physiology, fungi and plant diseases.

In grasses and compositæ the economic and scientific value of these two greatest orders of plants is studied. Special attention is given to the value, cultivation and determination of the grasses, preparing students to cope more easily with the forage question of Texas.

In the course in economic and systematic botany the characteristics, geographical distribution, properties and economic value of the most important natural orders of plants are studied. The histories, uses, cultivation and preparation for market of all the most important economic products of plants of the world are considered and illustrated by a good collection of such products in the museum.

The subject of vegetable histology and physiology considers the fine anatomy and the functions of the organs of plants. It shows the student the development of the organs and products of the plant. The work is connected with laboratory work where the student searches out under instructions the parts of plants and their structure as seen under the microscope.

In the course of fungi and plant diseases special study is made of those low forms of plants which produce mildew, blight, rust, smut and of those forms of plants which produce destructive contagious diseases in animals and plants. Many of the prominent species are studied in the laboratory under the microscope.

In this department the subject of entomology is also taught, in which a study is made of the classification of insects; the characteristics which discriminate the beneficial from the injurious species; insecticides and the methods of applying the same. The following is a brief summary of the means of illustrating the instruction in this department:

1. A collection of over a thousand specimens of plants, fairly representing the flora of Texas, besides many from parts of the United States.
2. A collection of economic products of plants from various parts of the world.
3. A small collection of insects.
4. An orchard, although not complete, has a fair collection of peaches, pears, plums, crab-apples, cherries, apples, figs, apricots, persimmons and pomegranates.
5. A vineyard of fifty-three varieties of grapes, including the most important varieties of the four great families.
6. A vegetable garden with hot-beds, cold-frames and experimental plots. In this are cultivated and tested all vegetables commonly cultivated in market gardens. The gardens illustrate a fair sized commercial garden, as its capacity is great enough to supply the mess hall with vegetables the year round.
7. A well built and equipped green house, although just

lately built, is being rapidly furnished with a good collection of exotic plants and proper means for propagation.

8. Nursery and forest tree plantation, with practice rows for budding, grafting, etc.

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## DEPARTMENT OF CIVIL ENGINEERING AND PHYSICS.

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ADJUNCT PROFESSOR, J. H. KIMEALY, D. E.

### CIVIL ENGINEERING.

All the students of the mechanical course have engineering and surveying during the third year. The engineering consists of the study of some good elementary text book giving a general description of mortars, building materials, foundations of structures, roads, etc.

The text is always supplemented by lectures on the different subjects by the professor.

The students are also constantly required to apply their knowledge by working out and handing in practical problems relating to the subject under discussion.

The course in engineering during the third year is made as general as possible in order that it may be of benefit not only to those students intending to take the B. C. E. course but also to those intending to take the B. M. E. course.

During this year the students have a course of lectures on graphic statics.

At the beginning of the third term of the third year all the students take up the study of surveying. They are taught the use of the plane table, compass, transit and level.

After they have studied and discussed these instruments in the class-room, and have acquired some knowledge of the methods of using them, they are taken into the field and required to do actual work.

They are required to run lines with both the compass and transit, to make surveys of plats with the plane table, compass and the transit. All work done in the field is worked up and plotted. They use the level in their field work and then make a profile from the notes. The college is well supplied with surveying instruments. The equipment includes the following :

One sextant. One transit with solar attachment. Two transits. Three levels. One Burt's solar compass. Four compasses. One plane table. One farmer's level. Several chains, level rods, poles, pins, &c., &c.

In the fourth year or first class the students taking the B. C. E course take up the study of railroads. They are taught how to lay out a road; to run in single, reverse and compounded curves; to set slope stakes. They discuss such other problems as are likely to occur in railroad work. Two afternoons in each week, during the fall and a part of the winter term, are spent doing work in the field, or in plotting work already done.

They also discuss earthwork problems; the computation of "cuts" and "fills."

During the winter term a great deal of time is devoted to making "strain diagrams" of bridges and roof trusses.

After they have finished their text on railroads they then begin a text on bridges and roofs, and are taught the analytic method of computing the strains in bridges under various conditions of loads.

The subject of the strength of materials receives some attention. The strength of beams and the resistance of tension and compression of different materials are discussed as fully as the ability and advancement of the students will admit. The students make a series of experiments upon small beams of different lengths, depth and thickness, in order to determine how the strength of beams varies with those dimensions.

Before graduation, each student in this department is obliged to hand to the professor in charge of the department, as a thesis, either a description of some piece of engineering work or structure, accompanied by drawings of the same, or a discussion of some subject relating to civil engineering.

#### DRAWING.

The students when they enter possess little, if any, idea of drawing, and, therefore, during the first year they are required to make free hand drawings from objects placed before them. In this work they are taught the elements of perspective, and are shown how to represent on paper objects as they see them. This free hand drawing is continued by the agricultural students throughout the second year.

With the beginning of the second year the students of the mechanical course begin the study of mechanical drawing. The

second year is spent in acquiring a knowledge of the various drawing instruments, and the method of using them. This is obtained by working out and drawing various problems that will occur in their work of drawing machines and structures. With the third year the students begin to draw machines and structures. They make plans and elevations first of simple objects, and as they acquire more skill they make detailed, sectional and working drawings. During the last year the students taking the B. M. E. course confine their attention almost exclusively to the drawing of machines and the parts of the steam engine.

During the same year the students taking the B. C. E. course draw buildings, roof trusses, parts of machines, switches, etc.

All drawings of machines or structures are made from sketches taken by the student himself from the actual machine or structure.

The students are also taught to make tracings on tracing linen, and from them to make "blue prints."

#### PHYSICS.

Work in this department will commence with the study of elementary physics in the third class, passing to a more advanced course in the second class.

The apparatus of the department is excellent and extensive, being sufficient for illustration and experiment throughout the entire course; besides, the shops of the mechanical department will be most useful as a laboratory for practical applications of the study of physics. With this aid students may construct special pieces of apparatus for illustration of any subject.

The following are some of the pieces of apparatus found in the physical laboratory: Powerful air-pump, Atwood's machine, 3-inch spark induction coil, telegraphic apparatus, galvanometer, plunge battery, Grove's battery, other batteries, dielectric machine, magneto-electro machine, electro-magnetic machine, Toeppler-Holtz machine, jars, electro-magnetic engine, dynamo machine, Geissler's tubes, siren, Crouch's best binocular microscope and fittings, polariscope and accessories, spectroscope, radiometer, hydraulic ram, hydrostatic and hydrodynamic apparatus, models of machines and mechanical powers, etc.

DEPARTMENT OF VETERINARY SCIENCE.

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ADJUNCT PROFESSOR, to be elected in June, 1888.

The anatomy and physiology of the domestic animals—the horse, ox, sheep, pig, their organisms, the evolution of the different systems of organs, and comparative embryology will be taught; systematic and practical histology and functional physiology receiving special consideration. The student is familiarized with the use of the microscope in the study of the minute anatomy of the animal tissues, and regular laboratory work in the dissection and study of typical organisms. The preparation of tissues, &c., is required.

Veterinary pathology includes the study of the nature, causes, symptoms, prevention and treatment of the general and epizootic diseases of the domestic animals; parasites and the affections which they cause, and how to prevent and destroy them; microscopic study of pathological specimens.

Lectures on heredity are given, treating of transmissible qualities, inherited traits and habits; hereditary diseases and defects; reversion, prepotence, crossing, and the production of races.

Veterinary materia medica teaches the preparation, uses, actions and doses of the principal medicines used in veterinary practice. The theory and practice of veterinary surgery is also taught; and the student will be made as familiar with the uses of instruments and the administration of medicines as the means at hand in the way of subjects will permit.

## TEXT BOOKS.

Owen's Comparative Anatomy; Wythe on the Microscope; Youatt on the Horse; Randall's Sheep-Husbandry; Harris on the Pig; Jennings' Cattle and their diseases.



## DEPARTMENT OF DRAWING.

ADJUNCT PROFESSOR, to be elected in June, 1888.

Instruction begins with the drawing of maps and charts in inks and colors, lettering, free-hand drawing of landscapes, figures, and topography as a training for the hand and eye, preparatory to the mechanical drawing for the professional engineer and machinist.

In mechanical drawing is taught the use of instruments in drawing right lines, curves, geometrical constructions, and elementary projections; and then to make working drawings, from actual measurements of parts of machinery, bridges and other structures, giving plans, elevations, cross-sections, and perspectives. The student is then required to prepare original designs for machinery, mill-work, arches, bridges, and such other structures as come within the province of the engineer and machinist.

This subject is taught by lecture and text books and by practice—free-hand and with drawing instruments, and embraces free-hand sketching and shading of geometrical solids, and intersections of solids, lettering, sketching of farm implements, with dimensions; geometrical construction with instruments; drafting to scale and architectural, and drawing of constructions in wood; projection of elementary pieces of mechanism; projectional drawing of machines and structures from sketches and measurements; drawing of designs for machines and structures. Drawings to accompany graduating theses.

TEXT BOOKS—McCord's Mechanical Drawing, Lectures.

All drawings are original and not copied by students.

Methods of reproducing and blue-printing are also taught.

Each student must provide himself with a set of drawing instruments. The cost will not be above \$8.00 for all that is required.

He will make his own "T" square and set squares (triangles) in the shops as a part of his regular exercises there. Pencils, paper and ink can be obtained at the college bookstore at regular market prices.

Students are advised not to make purchases of drawing instruments before entering the College, as arrangements have been made with reliable makers to furnish instruments on advantageous terms.



### COMMERCIAL DEPARTMENT.

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In this department will be taught the science of single and double entry book-keeping, the laws governing commercial transactions, and the philosophy and morals of business.

The method of instruction will be by lectures and recitations, with exercises in opening, conducting and closing books, and in the preparation of accounts current and all other business forms.



## Alumni.

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From the opening of the College in 1876 to its re-organization in 1880, the studies were elective. There were many graduates during that period in one or more departments.

Names of deceased alumni are marked †

The present occupations of the alumni are given so far as known, but information as to these is not readily accessible, and errors may be found in that given here. The alumni are requested to aid the chairman in making their roll as complete as possible, as a means of conveying to each, trustworthy intelligence of all the others.

### 1880.

L. J. KOPKE, C. E., .....Engineer, Merchant  
 W. H. BROWN, C. E., .....Lawyer

### 1881.

G. H. DUGAN, .....*Stock-raiser* .....Stock-raiser

### 1882.

#### Course.

M. F. ARMSTRONG, .....Mechanical.. .....Farmer, Pro. C. H. F. C.  
 SEARCY BAKER, .....Mechanical.....Merchant  
 J. M. BURFORD, .....Mechanical.....Druggist, Physician  
 F. R. VON BIBERSTEIN† .....Mechanical.....  
 J. R. CRAVENS, .....Mechanical.....Civil Engineer  
 C. S. GRAVES, .....Mechanical.....Civil Engineer  
 S. A. HARE, .....Mechanical.....Lawyer  
 R. S. LIPSCOMB, .....Mechanical.....Teacher  
 DAVID RICE, .....Mechanical .. .Lumber Manufacturer  
 ROBERT SAWYER, .....Mechanical...Lumber Dealer  
 AARON TALBOT, .....Mechanical.....Farmer  
 D. H. WATSON, .....Mechanical.....Horticulturist

## 1883.

## Course.

J. C. CALDWELL,	Mechanical	Civil Engineer
J. F. EDWARDS,	Mechanical	Civil Engineer
OSBORNE KENNEDY,	Mechanical	Teacher
H. J. MILLER,	Mechanical	Merchant
W. E. MOSELY,†	Mechanical	
A. T. PATRICK,	Mechanical	
W. L. TULLER,	Mechanical	Contractor
J. M. WESSON,	Mechanical	Lawyer

## 1884.

After this time the names are arranged in the order of general merit, the three most distinguished students being indicated by asterisks.

1. *G. W. ROACH,	Mechanical	Teacher
2. *W. WIPPRECHT,	Agricultural	Asst. Chemist Agl. Exp. Sta.
3. *J. L. GRAY,	Mechanical	Engineer
4. D. B. McQUEEN,	Mechanical	Merchant
5. N. A. DAWSON,	Mechanical	
6. F. C. VON ROSENBERG,	Mechanical	
7. B. C. MACKENSEN,	Mechanical	Architect
8. A. L. SHERLEY,	Agricultural	Railroad Agt., Farmer
9. R. E. PENNINGTON,	Agricultural	Lawyer
10. G. GIESECKE,	Mechanical	Agent Woolen Mills
11. R. B. GREEN,	Mechanical	Merchant
12. W. B. PHILPOTT,	Mechanical	Assist. Prof. A. & M. C.
13. B. E. KNOLLE,	Mechanical	Physician
14. V. ANDREWS,	Mechanical	Teacher

## 1885.

W. WIPPRECHT, B. S. A.,		Assist. Prof. A. & M. C.
1. *J. N. DAVIS,	Mechanical	Teacher
2. *F. L. PFEUFFER,	Mechanical	Merchant
3. *W. WHITAKER,	Mechanical	Contractor
4. T. D. ROWELL,	Agricultural	Lawyer
5. F. CARUTHERS,	Agricultural	Teacher
6. F. E. DUDLEY,	Mechanical	
7. L. MACKENSEN,	Mechanical	Watchmaker
8. C. H. PESCAV,	Mechanical	Clerk
9. S. HOUGH,	Mechanical	
10. E. W. SPANN,	Mechanical	



Mess. ENCOGAN

INTERIOR OF QUALITATIVE CHEMICAL LABORATORY



## 1886.

## Course.

- |     |                   |              |                         |
|-----|-------------------|--------------|-------------------------|
| 1.  | D. ADRIANCE,      | Agricultural | Ass't. Prof. A. & M. C. |
| 2.  | F. E. GIESECKE,   | Mechanical   | Ass't. Prof. A. & M. C. |
| 3.  | M. D. TILSON,     | Mechanical   | Civil Engineer          |
| 4.  | H. L. WRIGHT,     | Mechanical   | Civil Engineer          |
| 5.  | I. A. COTTINGHAM, | Mechanical   | Farmer                  |
| 6.  | E. H. WHITLOCK,   | Mechanical   | Student                 |
| 7.  | J. W. CARSON,     | Agricultural | Ass't. Agl. Ex. Sta.    |
| 8.  | C. L. BURGHARD,   | Mechanical   | Ass't Postmaster        |
| 9.  | J. M. CARSON,     | Agricultural | Druggist                |
| 10. | W. F. WOODWARD,   | Mechanical   | Clerk                   |
|     | C. C. McCULLOUGH, | Mechanical   | Student                 |

## 1887.

- |     |                 |              |                           |
|-----|-----------------|--------------|---------------------------|
| 1.  | G. A. ROGERS,   | Mechanical   | College Clerk, A. & M. C. |
| 2.  | F. L. FORDTRAN, | Agricultural | Student                   |
| 3.  | J. H. FREEMAN,  | Mechanical   | Railroad Office           |
| 4.  | H. J. McNAIR,   | Mechanical   |                           |
| 5.  | T. B. WEST,     | Mechanical   |                           |
| 6.  | L. E. ALLEN,    | Mechanical   | Clerk                     |
| 7.  | E. R. KNOLLE,   | Mechanical   | Merchant                  |
| 8.  | J. B. HEREFORD, | Mechanical   | Insurance Agent           |
| 9.  | H. C. HARE,     | Mechanical   | Student                   |
| 10. | E. GRUENE,      | Mechanical   |                           |





## Miscellaneous.

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### LOCATION.

The College is situated at College Station, in the county of Brazos, five miles south of Bryan, and ninety-five miles northwest of Houston. The Houston and Texas Central railroad runs through the grounds, daily trains stopping at the station about 800 yards from the main building.

### POSTOFFICE.

This is College Station, not Bryan. It is important that correspondents should observe this, since letters are often delayed by going to the latter place. College Station is a money order office, and there is an express office at this place.

### MAIN BUILDING.

The main building stands on the highest point of the grounds. It is four stories high, made of brick, with mansard roof and towers. The rooms are all of high pitch and well ventilated. On the fourth story nearly half the space is occupied by the chapel. Two society halls, the armory, the athletic hall and three small rooms are also on this floor. On the third story are the mathematical section and instrument rooms and students' quarters.

On the second floor are the library, agricultural section room, chairman's office, chemical laboratory for qualitative work, and several students' rooms. On the first floor are physical and chemical section rooms, chemical balance room and dark room, section rooms of English languages and mechanics, offices of the commandant, business manager and treasurer, and janitor's room. There are broad halls running through each story at right angles to each other, and two sets of stairways, one in the middle, the other at the end of the building. The external appearance of the main building is shown on the right of the frontispiece.

**SHOPS.**

Back of the main building (seen a little to the left of it in the picture) is the carpenter shop. It is of two stories, fitted with benches and wood-working tools in separate sets for students. Power is supplied in this shop by a twelve horse power vertical engine. The boiler house and blacksmith shop are in the rear of the building. The metal working shop is seen near the middle of the engraving. Its machinery is driven by a twenty horse power engine. The building is of brick.

The blacksmith shop is furnished with six forges and necessary tools, and will be in operation at the beginning of the next session.

**MESS HALL.**

This is seen on the left of the other buildings. It is three stories high, and is attached to the house which was formerly the president's residence. The first floor is occupied by the hall, steward's office, store rooms, kitchen, &c. The second and third floors are occupied by students' rooms, of which there are twenty in the building.

**PFEUFFER HALL.**

This new building is for a dormitory, and has capacity to accommodate seventy-five students. It is named in honor of Hon. George Pfeuffer, a former president of the board of directors.

**HOSPITAL.**

A large and comfortable building has been erected as a hospital and surgeon's residence.

The surgeon will give his attention to all students without charge other than the regular medical fee of five dollars paid by each student upon entrance.

**CREAMERY.**

There has recently been erected a building for the creamery. It is supplied with a complete outfit of the latest improved apparatus for making butter. The machinery is driven by a six horse power engine. Practice in the creamery forms a part of the agricultural course.

**NEW BUILDINGS.**

The liberal appropriation made by the recent called session of the legislature will enable the board of directors to increase the



capacity of the college for the accommodation of students, to put in thorough repair the college buildings, and to enlarge the equipment of the industrial departments.

#### FARM BUILDINGS.

These are situated several hundred yards in the rear of the main building. They consist of two large barns, a milking shed and a piggery. One of the barns is new, and is fitted with stalls for the thorough-bred cattle, and storage rooms for implements and food. These buildings are supplied with water from a large tank, which is kept filled by a wind mill.

There has recently been erected three large silos in connection with the agricultural experiment station, and students will have the advantage of practical instruction in the connection of silos and the best method of preparing ensilage.

#### PERMANENT FUND.

In November, 1876, the legislature formally accepted from congress the gift of one hundred and eighty thousand acres of public land for the endowment of an agricultural and mechanical college. This land was sold for \$174,000, which sum was invested in seven per cent. state bonds. As under the act of congress neither principal nor interest of this money could be used for other purposes than the payment of officer's salaries, at the time of the opening of the College there was an addition to the fund, from accumulated interest, of \$35,000. This was invested in six per cent. bonds of the state, thus furnishing an annual income of \$14,280.

#### GROUNDS.

The county of Brazos donated to the College two thousand four hundred and sixteen acres of land lying on each side of the Houston and Texas Central railroad, five miles from Bryan and ninety-five from Houston.

#### GROUNDS, FARM AND STOCK.

The farm, garden, orchard, barnyards and campus are included in the inclosures to the east of the station. The farm comprises about two hundred acres. This is devoted solely to experimental culture and the production of forage for stock. The orchard of eighty acres contains a large variety of young fruit trees more or less adapted to this climate. The garden affords experimental

work to students and furnishes an abundance of vegetables to the mess hall. A young vineyard has been started; many of the vines are already bearing well.

Back of these are the piggery, calf lots, barns and pastures of about four hundred acres.

The College now owns registered cattle, Dutch Frisians, Galloccays and Jerseys, besides a number of high-grade shorthorns and common cows for the present milk supply. The swine include Essex and Berkshires.

During the next session a creamery will be perfected for giving instruction in butter making. On the west side of the railroad a pasture of eight hundred acres has been enclosed.

#### APPARATUS.

All departments of instruction are well supplied with implements and instruments of the latest and best forms. The agricultural department is equipped with hand tools, machinery and mules for farm work. The machine shops are well furnished with wood and metal working machinery and tools. The chemical and physical laboratories have recently received important accessions of apparatus.

The department of mathematics is supplied with three sets of surveying and engineering instruments.

#### MILITARY ORGANIZATION AND DISCIPLINE.

For the purpose of maintaining good order and discipline, as well as for the proper execution of the law of congress requiring military instruction of the students, they are organized into a battalion of two or more companies. The battalion is under the immediate command of the commandant. The officers, commissioned and non-commissioned, are students taken for the most part from the first and second classes. They are appointed by the chairman of the faculty upon the recommendation of the commandant, and their appointment and rank is made to depend upon the active and soldierly performance of their duties, their sense of duty and responsibility, and their general good conduct and class standing.

These officers, not merely at drill, but at all times when on duty, assist in keeping good order in and around the buildings. In their various positions of graduated responsibility they not only aid most efficiently in maintaining discipline, but continually practice and are trained in the exercises of the highest qualities involved in obedience and command.

**GENERAL REGULATIONS.**

It is understood that every student upon entering the college pledges himself to an honest effort to observe the regulations and sustain the authorities in the maintenance of discipline.

The strictest attention to study, and the most exact punctuality in attendance on recitations and other duties, will be made the condition of every student's continuance at the college; and any student who without authority absents himself from recitation or any other duty, deserts his class, or refuses to attend when warned, shall be dismissed, or less severely punished, at the discretion of the faculty.

Students are forbidden to enter into combinations under any pretext whatever. One who shall begin, excite, cause or join in any boisterous or riotous conduct, or become a party to any agreement to avoid or violate any regulation, to hold no intercourse with a comrade, or to do any act to the prejudice of good order and military discipline, shall be dismissed.

Students are prohibited, under penalty of dismissal, from having in their possession ammunition, weapons or arms not issued for the performance of military duty; nor shall these be retained loaded in quarters under any pretext.

A student who shall drink, or bring, or cause to be brought within the cadet's limits, or have in his room, or otherwise in his possession, any fermented or intoxicating liquor, or fruits or viands preserved in intoxicating liquor, shall be dismissed or otherwise punished at the discretion of the faculty.

No student shall have in his possession, or play at cards or games of chance, engage in a raffle, or in any manner wager money or other things, on penalty of dismissal.

Permission to attend private parties or places of public amusement will not be granted during the term.

No cadet can be granted a leave of absence during a term of twenty weeks, without an urgent necessity.

No student is allowed to leave the College during the session without permission of the chairman of the faculty, on application through the commandant.

A student who shall cut, mark, or otherwise injure or deface the buildings, furniture or appurtenances; the trees, shrubbery, green sward, grounds, fences, stables, or out-houses; or who shall lose, injure, destroy, or improperly dispose of the arms, accoutrements, or other property of the College, shall make good all damage, and be dismissed or otherwise punished, according to the nature of the offense.

When the responsibility for the destruction of state property can not be fixed upon any one, the amount of the damage will be assessed against the occupants of a room or division, or the entire body of students, as the case may require.

Students receive the admonition and counsel of the chairman of the faculty before being subjected to any penalty, except in case of flagrant offenses. Those who are habitually neglectful of their duties, or who do not regularly attend their classes, will be required to withdraw from the College.

To each recorded delinquency a number of from one to ten, proportional to the degree of the offense in a moral and military view, is assigned to express demerit.

Any student receiving demerits as follows shall be declared deficient in conduct and subject to dismissal: In the first class one hundred in a session or thirty-four in a term; in the second class one hundred and fifty in a session or fifty in a term; in the third class two hundred in a session or sixty-six in a term; in the fourth class two hundred and fifty in a session or eighty-four in a term.

#### TO PARENTS AND GUARDIANS.

The necessity for uninterrupted attention to their studies on the part of students can not be too strongly urged. It is impossible for a young man to become interested in his work here if he is permitted to leave the College whenever any special amusement is advertised in our neighboring towns or cities.

It is therefore respectfully asked that those who send their sons or wards here do not, except in the most pressing emergencies, request permission for them to leave their studies for any purpose whatever.

Whenever a parent or guardian shall leave the application for special permits to the discretion of the son or ward, the College authorities will judge of the propriety of granting such permits.

#### HYGIENE.

The buildings of the college stand upon the crest of a "divide," from which there is sufficient slope to carry off all drainage.

The soil is sandy, and mud and water disappear within a few hours after rain. An extensive open prairie surrounds the college on all sides. There is a constant breeze—usually very strong. The water used by students is obtained from cisterns, supplied from high, clean roofs.

The rooms of the students are inspected at least twice a day, and are required to be kept neat and well ventilated.

Students have the use of bath rooms supplied with cistern water.

There is in the vicinity of the college apparently nothing to produce malarial sickness, and as a matter of fact there is very little of it here. All serious sickness has been in the form of pneumonia and measles, which do not depend on local causes.

The food served in the mess hall is admitted by all to be abundant, palatable and wholesome. It is therefore very desirable that parents should refrain from sending boxes of delicacies to their sons. The practice of eating from these between meals is undoubtedly very injurious to the health of the young men, and the surgeon has traced more sickness and consequent loss of time to this one cause than to any other.

Instruction in physiology and hygiene is regarded as of the utmost importance, and is given as shown in the curricula.

The drill, farm and shop practice, and athletic sports furnish abundant and wholesome exercise for the students.

#### RELIGIOUS AND MORAL CULTURE.

Every Sunday there will be service in the chapel and all students must be present unless excused by special requests of parents or guardians. The faculty will try by all the means in their power to protect and develop good morals in those committed to their charge.

The situation of the college is peculiarly favorable for the preservation of the morals of the students. The nearest town is distant five miles, and it is almost impossible for any student to go to Bryan, even for a short time, without his absence becoming known to the authorities. All the temptations that beset young men in cities are entirely absent here. No student is ever permitted to visit Bryan at night except by request of his parent or guardian.

#### LITERARY SOCIETIES.

There are two literary societies in the college, the Austin and the Calliopéan. They meet weekly in their respective halls for practice in debate, literary composition and declamation. Public debates are held frequently during the session, and speakers are invited to deliver addresses.

#### LIBRARY AND READING ROOM.

A valuable library and reading room have been provided for the use of students, and additions will be annually made.

The library now comprises standard works of history, biography, agriculture, mechanics, engineering, mathematics, natural sciences, law and political economy, mental and moral philosophy, poetry, general literature and reference.

Gifts of books and magazines will be thankfully received. Back numbers of literary and scientific periodicals will be especially useful in completing files.

**LIST OF PERIODICALS AND PAPERS IN THE READING ROOM.**

National Live Stock Journal.  
 Southern Journal and Dixie Farmer.  
 Rural New Yorker.  
 Breeder's Journal.  
 Duncan's Monthly (not arrived.)  
 Texas Farm and Ranch.  
 Texas Farmer.  
 American Agriculturist.  
 Cultivator and Country Gentleman.  
 Southern Live Stock Journal.  
 Popular Gardening.  
 Engineering News.  
 Carpentry and Building.  
 American Machinist.  
 Scientific American and Supplement.  
 Iron Age.  
 North American Review.  
 Century Magazine.  
 Harper's Monthly.  
 The Forum.  
 Popular Science Monthly.  
 Scribner's Monthly Magazine.  
 Harper's Weekly.  
 New York Weekly World.  
 New York Weekly Sun.  
 New York Weekly Times.  
 New York Weekly Tribune.  
 Harper's Young People.  
 St. Nicholas.  
 Puck.  
 The Nation.  
 Army and Navy Journal.  
 Youth's Companion.  
 Popular Science News.  
 Library Magazine.  
 Galveston Daily News.  
 Horticultural Art Journal.

**MUSEUM.**

During the past session a room has been fitted up for a museum. Donations to the museum will be thankfully received and credit given to the donors on labels to the specimens.

Minerals from all parts of the state will be received and their composition determined by chemical analysis.

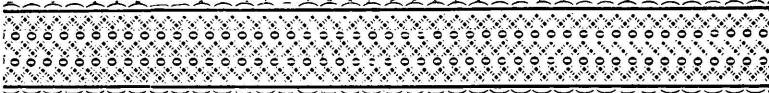
**TEXAS FARM AND RANCH MEDAL.**

The Texas Farm and Ranch offers a gold medal for the best thesis presented by a member of the graduating class each year.

**SPECIAL NOTICE**

Hereafter students who do not board at the College will be charged TEN DOLLARS each term, payable in advance.





Merit Roll for 1887-8.

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The following students were reported to the Board of Directors as distinguished in the several departments:

FIRST CLASS.

GENERAL MERIT—Allen, Braun, Tilson.

IN DEPARTMENTS.

MATHEMATICS—Allen, Braun, Tilson.

AGRICULTURE—Allen, Tilson, Josey.

MECHANICS—Braun, Dietert, Hoffman.

ENGLISH—Allen, Braun, Tilson.

CHEMISTRY—Tilson, Braun, Allen.

CIVIL ENGINEERING AND DRAWING—Jonas, Wood, Knolle (W.)

HORTICULTURE—Swain.

SPANISH—Braun, Hoffman, Wurzbach.

GERMAN—Knolle (W.), Shirley (Z), Wood.

CONDUCT—Allen, Braun, Dietert, Hoffman, Jonas, Josey, Rennert, Smith, Tilson.

SECOND CLASS.

GENERAL MERIT—Montgomery, Fearhake, Merritt.

IN DEPARTMENTS.

MATHEMATICS—Montgomery, Merritt, Fearhake.

AGRICULTURE—Montgomery, Ness, Merritt.

ENGLISH—Ness, Fearhake, Duggan.

MECHANICS—Shirley (W.), Kuehne, Jones, Hutchinson.

CHEMISTRY—Merritt, Montgomery, Mabry.

CIVIL ENGINEERING AND DRAWING—Fearhake, Shirley (W.), Middlebrooke.

HORTICULTURE—Drisdale, Montgomery, Ness.

TACTICS—Leggett, Montgomery, Nichols (F.)

SPANISH—Hutchinson, Jones, Kuehne.

GERMAN—Fearhake, Rogers, Shirley (W.)

CONDUCT—Bonds, Drisdale, Hutchinson, Merritt, Montgomery, Ness, Nichols (R.), Schumacher (R.), Shirley (W.)



## THIRD CLASS.

GENERAL MERIT—Williams (A.), Backus, Hernstadt.

## IN DEPARTMENTS.

MATHEMATICS—Backus, Hernstadt, Allen (J.)

AGRICULTURE—Hopkins, Kyle, Anderson.

ENGLISH—Hernstadt, Williams (A.), Backus.

MECHANICS—Williams (A.), Backus, Seeligson (A.)

PHYSICS—Williams (A.), Backus, Hernstadt.

DRAWING—Schmidt, Hernstadt, Sims.

HORTICULTURE—Sims, Kyle, Anderson.

CONDUCT—Coffield, Flynt, Fulkerson, Gillespie, Hereford, Hopkins, Kyle, Schmidt, Smith (J.)

## FOURTH CLASS.

GENERAL MERIT—Sauvignet, Hertzberg, Wingo.

## IN DEPARTMENTS.

MATHEMATICS—Henderson (T.), Hertzberg, Field.

AGRICULTURE—Henderson, (T.), Hertzberg, Morrill.

ENGLISH—Hertzberg, Wingo, Dowden.

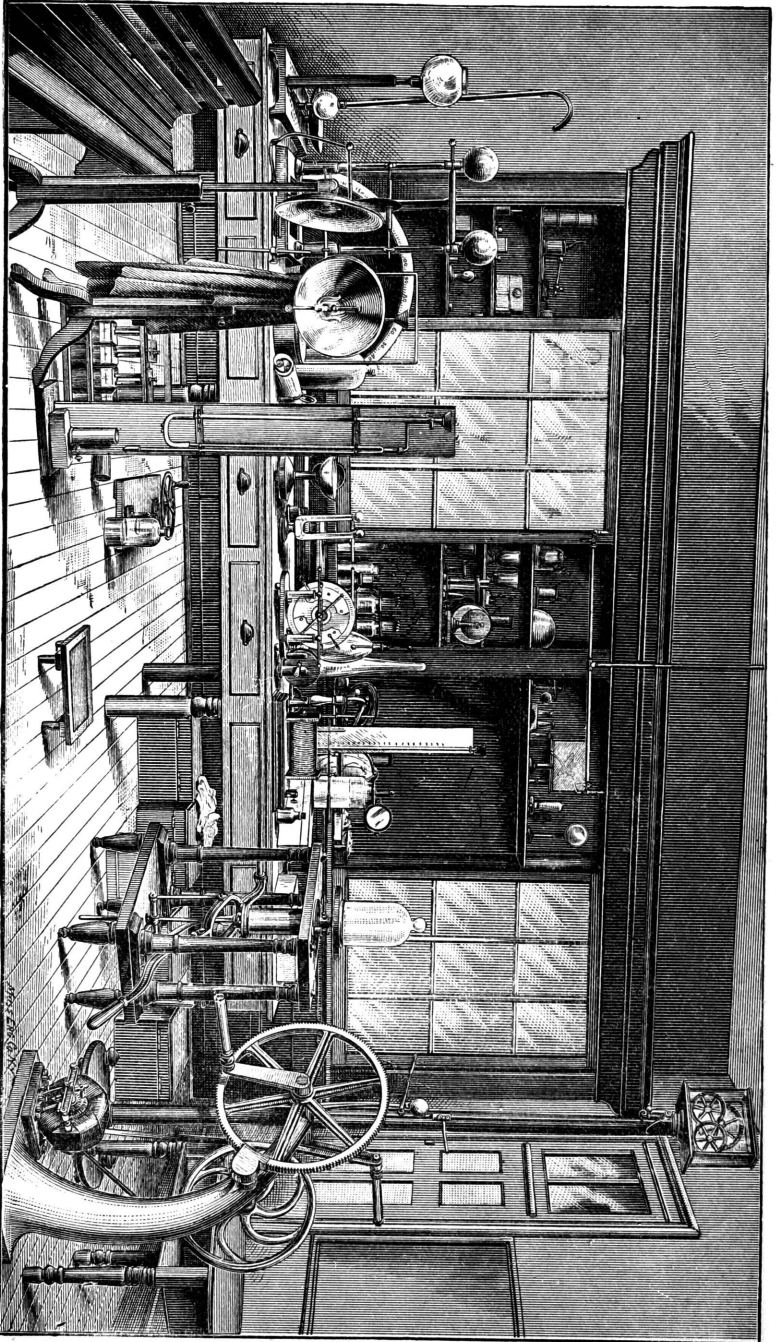
MECHANICS—Redden, McCormick, Sauvignet.

DRAWING—Whealan, Morrill, Hertzberg.

SPANISH—Hertzberg, Mix, Gillespie.

CONDUCT—Henderson (H.), Mix, Mueller, Wingo, Whealan, Japhet, Routt.





INTERIOR OF PHYSICAL LABORATORY



# TEXAS

## AGRICULTURAL EXPERIMENT STATION.

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### OFFICERS.

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#### BOARD OF DIRECTORS OF THE COLLEGE.

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#### EXPERIMENT STATION COUNCIL.

L. L. McINNIS, ..... Chairman of the Faculty  
T. M. SCOTT, ..... Agent of the Board  
F. A. GULLEY, ..... Director of the Station

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#### STATION STAFF.

F. A. GULLEY, M. Sc. .... Director  
GEO. W. CURTIS, M. A. Sc. .... Agriculturist  
H. H. HARRINGTON, M. Sc. .... Chemist  
T. L. BRUNK, B. Sc. .... Horticulturist  
J. H. KINEALY, D. E. .... Meteorologist  
MARK FRANCIS, V. M. D. .... Veterinarian  
W. WIPPRECHT, B. S. A. .... Assistant Chemist  
J. H. CARSON. .... Assistant to Director  
D. ADRIANCE. .... Assistant to Chemist  
J. F. DUGGAR, B. S. .... Assistant to Agriculturist  
J. F. McKAY. .... Assistant to Horticulturist



## ORIGIN.

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The agricultural experimental station has been established by the congress of the United States as shown by the following bill. This will be of great benefit to the agricultural course :

*Full Text of the Experiment Station Bill as Enacted by Congress and approved by the President.*

### AN ACT

TO ESTABLISH AGRICULTURAL EXPERIMENT STATIONS IN CONNECTION WITH THE COLLEGES ESTABLISHED IN THE SEVERAL STATES UNDER THE PROVISIONS OF AN ACT APPROVED JULY 2, 1862, AND OF THE ACTS SUPPLEMENTARY THERETO.

SECTION 1. Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, that in order to aid in acquiring and diffusing among the people of the United States useful and practical information on subjects connected with agriculture, and to promote scientific investigation and experiment respecting the principles and applications of agricultural science, there shall be established, under direction of the college or colleges, or agricultural department of colleges, in each state or territory, established, or which may be hereafter established, in accordance with the provisions of an act approved July 2, 1862, entitled "An act donating public lands to the several states and territories which may provide colleges for the benefit of agriculture and the mechanic arts," or any of the supplements to said act, a department to be known and designated as an "agricultural experiment station:" provided that in any state or territory in which two such colleges have been or may be so established, the appropriation hereinafter made to such state or territory shall be equally divided between such colleges, unless the legislature of such state or territory shall otherwise direct.

SEC. 2. That it shall be the object and duty of said experiment stations to conduct original researches to verify experiments on the physiology of plants and animals; the diseases to which they are severally subject, with the remedies for the same; the chemical composition of useful plants at their different stages of growth; the comparative advantages of rotative cropping as pursued under a varying series of crops; the capacity of new plants or trees for acclimation; the analyses of soils and water; the chemical composition of manures, natural or artificial, with experiments designed to test their comparative effects on crops of different kinds; the adaptation and value of grasses and forage

plants; the composition and digestibility of the different kinds of food for domestic animals; the scientific and economic questions involved in the production of butter and cheese; and such other researches or experiments bearing directly on the agricultural industry of the United States as may in each case be deemed advisable, having due regard to the varying conditions and needs of the respective states or territories.

SEC. 3. That in order to secure, as far as practicable, uniformity of methods and results in the work of said stations, it shall be the duty of the United States commissioner of agriculture to furnish forms, as far as practicable, for the tabulation of results of investigation or experiments; to indicate, from time to time, such lines of inquiry as to him shall seem most important; and, in general, to furnish such advice and assistance as will best promote the purposes of this act. It shall be the duty of each of said stations, annually, on or before the first day of February, to make to the governor of the state or territory in which it is located, a full and detailed report of its operations, including a statement of receipts and expenditures, a copy of which report shall be sent to each of said stations, to the said commissioner of agriculture, and to the secretary of the treasury of the United States.

SEC. 4. That bulletins or reports of progress shall be published at said stations at least once in three months; one copy of each shall be sent to each newspaper in the states or territories in which they are respectively located, and to such individuals actually engaged in farming as may request the same, and as far as the means of the station will permit. Such bulletins or reports, and the annual reports of said stations shall be transmitted in the mails of the United States free of charge for postage, under such regulations as the postmaster-general may from time to time prescribe.

SEC. 5. That for the purpose of paying the necessary expenses of conducting investigations and experiments and printing and distributing the results as hereinbefore prescribed, the sum of \$15,000 is hereby appropriated to each state, to be specially provided for by Congress in the appropriations from year to year, and to each territory entitled under the provisions of section eight of this act, out of any money in the treasury proceeding from the sales of public lands, to be paid in equal quarterly payments on the first day of January, April, July and October in each year, to the treasurer or other officer duly appointed by the governing boards of said colleges to receive the same, the first payment to be made on the first day of October, 1887: provided, however, that out of the first annual appropriation so received by any station an amount not exceeding one-fifth may be expended in the erection, enlargement, or repair of a building or buildings necessary for carrying on the work of such station; and thereafter an amount not exceeding five (5) per centum of such annual appropriations may be so expended.

SEC. 6. That whenever it shall appear to the secretary of the treasury, from the annual statement of receipts and expenditures of any of said stations, that a portion of the preceding annual appropriation remains unexpended, such amount shall be deducted from the next succeeding annual appropriation to such station, in order that the amount of money appropriated to any station shall not exceed the amount actually and necessarily required for its maintenance and support.

SEC. 7. That nothing in this act shall be construed to impair or modify the legal relation existing between any of the said colleges and the government of the states or territories in which they are respectively located.

SEC. 8. That in states having colleges entitled under this section to the benefits of this act, and having also agricultural experiment stations established by law separate from said colleges, such states shall be authorized to apply such benefits to experiments at stations so established by such states; and in case any state shall have established, under the provisions of said act of July 2d, aforesaid, an agricultural department or experimental station in connection with any university, college or institution not distinctively an agricultural college or school, and such state shall have established or shall hereafter establish a separate agricultural college or school, which shall have connected therewith an experimental farm or station, the legislature of such state may apply, in whole or in part, the appropriation by this act made, to such separate agricultural college or school; and no legislature shall, by contract, express or implied, disable itself from so doing.

SEC. 9. That the grants of moneys authorized by this act are made subject to the legislative assent of the several states and territories to the purpose of said grants: provided, that payments of such installments of the appropriation herein made as shall become due to any state before the adjournment of the regular session of its legislature meeting next after the passage of this act shall be made upon the assent of the governor thereof duly certified to the secretary of the treasury.

SEC. 10. Nothing in this act shall be held or construed as binding the United States to continue any payments from the treasury to any or all the states or institutions mentioned in this act, but congress may at any time amend, suspend or repeal any or all of the provisions of this act.





## ORGANIZATION.

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In 1887 congress made provision for establishing, equipping and supporting agricultural experiment stations in the several states, the stations to be placed under the supervision of the boards of directors of the state agricultural and mechanical colleges, where such colleges have been established.

The act of congress appropriates \$15,000 per annum from the United States treasury, to each state, to equip and support the stations. Owing to some technical defect in the bill as passed, additional legislation was required to make the fund available. By recent enactment the appropriation is placed at the disposal of the several states, and the stations are being organized.

### OBJECT OF THE STATIONS.

The purpose for which the agricultural experiment station bill was passed is clearly set forth in section 2 of the act, which reads as follows :

“It shall be the object and duty of said experiment stations to conduct original researches or verify experiments on the physiology of plants and animals; the diseases to which they are severally subject, with the remedies for the same; the chemical composition of useful plants at their different stages of growth; the comparative advantages of rotative cropping as furnished under a varying series of crops; the capacity of new plants or trees for acclimation; the analyses of soils and water; the chemical composition of manures, natural or artificial, with experiments designed to test their comparative effect on crops of different kinds; the adaptation and value of grasses and forage plants; the composition and digestibility of the different kinds of food for domestic animals; the scientific and economic questions involved in the production of butter and cheese, and such other reséarches or experiments bearing directly on the agricultural industry of the United States as may in each case be deemed advisable.”

The bill further provides that reports of the progress made in experiments shall be published from time to time, one copy of



which shall be sent to each newspaper published in the state where such station is located, and one to each individual actually engaged in farming who may request the same, as far as the means of the station will permit; all such reports to be carried in the mails free.

The experiment stations were placed under the supervision of the board of directors of the agricultural and mechanical colleges, not for the purpose of assisting the colleges, but because it was thought the fund would be most judiciously expended under such control, and it was believed that a portion of the equipment of said colleges, in the way of land, stock, implements, etc., might, without detriment to the work of the colleges, be used to some extent in experimental work. It was thought also that men employed at the colleges, many of whom have become skilled in experimental work, would be able to give part of their time to the station.

#### **EXPENDITURE OF THE STATION FUND.**

The bill expressly provides that no part of the fund appropriated shall be used for any purpose other than equipping and supporting an establishment for carrying on experimental work. While the stations may be attached to the agricultural colleges and be made departments of the same, no part of this fund may be used in support of the colleges, except in experimental work.

#### **ADVANTAGE TO THE COLLEGE.**

Financially, the station will not be of direct benefit to the college. To compensate the college, however, for the use of property assigned to the work of the station, such work will add largely to the ability of the college to impart more thorough instruction in scientific and practical agriculture. College students will be employed in the work of the station to as great an extent as may be found practicable, and the plant of the station, and experimental work in progress, will increase the means of illustration of the college and be of special advantage to the students in providing practice and training in agricultural work, under skilled instructors. The station will not add to the expenses of the college in any way, as such time as may be given by professors or other employes in experimental work will be paid for from the station fund, and the value of the time lost to the College deducted from the salary that would be paid by the College if the entire time was given to College work; and in order

not to impair the efficiency of instruction the board has provided for additional instruction to relieve the professors of a portion of their class work.

#### CO-OPERATION OF FARMERS WITH THE STATION.

The board of directors of the College desire to make the work of the station of as much value to the agricultural interests of the state as may be possible. The work will be conducted at all times with special reference to giving information of value that may be of some practical use to the farmer. To enable them to carry out this policy, all associations having the advancement of agriculture in view,—the Grange, Alliance, Stockbreeders, Fruit-growers, and other organizations, will be invited from time to time to appoint delegates to meet with the board of directors and the council, and consult and advise with them in regard to the work of the station. Suggestions will be gladly received at all times from any one who is interested in advancing the agricultural interests of the state.

#### ORGANIZATION.

In accordance with the act of congress, the board of directors of the Agricultural and Mechanical College of Texas, at a meeting held January 25, 1888, established the experiment station as a department of the College. Provision was made for assigning to the station department such part of the College farm, buildings and other equipment of the College as would be found necessary to prosecute the work, in addition to the outfit supplied from the funds of the station.

The station will be conducted as a department of the college, but under the control of the experiment station council, consisting of the chairman of the faculty, the agent of the board, and the director of the station.

The director of the station will have general supervision of all experimental work, correspondence and publication of bulletins and reports.

The professors of agriculture, chemistry, horticulture, physics and veterinary science will have charge of work in their several departments.





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