

**Bulletin**

OF THE

**Texas Technological College**

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No. 3

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**Summer Session**

**1940**

FIRST TERM, JUNE 6 TO JULY 15  
SECOND TERM, JULY 16 TO AUGUST 23

LUBBOCK, TEXAS

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Entered as second-class matter December, 1924, at the Postoffice at  
Lubbock, Texas, under the Act of August 24, 1912.

## SUMMER SCHOOL CALENDAR

1940

- June 5. Wednesday. Graduate and advanced student consultation with Deans and Department Heads.
- June 6. Thursday. Registration. Entrance examinations for persons who do not meet the regular entrance requirements.
- June 7. Friday. Classes begin, 7:00 A. M.
- June 10. Monday. Students registering today will register for a reduced load and then only in certain subjects.
- June 11. Tuesday. Last day a student may register for the first term. Late registration fee charged today.
- July 4. Thursday. Holiday.
- July 13-15. Saturday-Monday. Final examinations for first term.
- July 15. Monday. First term closes.
- July 16. Tuesday. Registration for second term.
- July 17. Wednesday. Classes begin, 7:00 A. M.
- July 20. Saturday. Last day students may register for second term. Late registration fee charged today.
- August 21-22. Wednesday-Thursday. Final examinations for second term.
- August 23. Friday. Summer School Commencement and Graduation Exercises, 7:30 P. M.
- August 23. Friday. Summer School closes.

## COLLEGE CALENDAR

## SIXTEENTH ANNUAL SESSION

1940

## FIRST SEMESTER

- September 11. Wednesday. General Faculty Meeting, 10:00 A. M.
- September 11. Wednesday. Entering Freshmen and transfer students submitting transcripts later than this date may be delayed in registration.
- September 11-14. Wednesday-Saturday. Pre-registration consultations for all students. Payment of Fees.
- September 12. Thursday. Divisional Faculty Meetings.
- September 13. Friday. Departmental Staff Meetings.
- September 12-13. Thursday-Friday. Entrance examinations for students not meeting the regular admission requirements. Entrance examinations taken after these dates may be taken only by paying late fee of \$2.50.
- September 14. Saturday. Dormitories open. First meal noon.
- September 16-17. Monday-Tuesday. Registration, 8:00 A. M. Fees must be paid before scheduling classes.
- September 18. Wednesday. Classes begin.
- September 20. Friday. Late registration fee required after this time, 5:00 P. M.
- September 20. Friday. Open House for all students by churches of Lubbock.
- September 21. Saturday. Annual reception for all students and faculty by President and Administrative Council, 8:00 P. M.
- September 22. Sunday. Special sermon for students in Lubbock churches, 11:00 A. M.
- September 24. Tuesday. Last day a student may register or add courses in First Semester.

## BOARD OF DIRECTORS

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SPENCER A. WELLS, Vice-Chairman .....	Lubbock
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L. L. STEELE .....	Mexia
JAMES M. WEST .....	Houston

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W. T. GASTON, Secretary ..... Lubbock

## OFFICERS OF ADMINISTRATION

CLIFFORD B. JONES, <i>President.</i> Office, 215, Administration Building.
JAMES MARCUS GORDON, <i>Director, Summer Session, Dean of the Division of Arts &amp; Sciences.</i> Office, 211, Administration Building.
ARTHUR HENRY LEIDIGH, <i>Dean of the Division of Agriculture.</i> Office, 102, Agriculture Building.
OTTO VINCENT ADAMS, <i>Dean of the Division of Engineering.</i> Office, 202, Engineering Building.
MARGARET WATSON WEEKS, <i>Dean of the Division of Home Economics.</i> Office, 101, Home Economics Building.
ROBERT CABANISS GOODWIN, <i>Dean of the Division of Graduate Studies and Director of Scientific Research.</i> Office, 104, Chemistry Building.
WILLIAM CURRY HOLDEN, <i>Dean and Director of Historical, Anthropological and Social Science Research, and Curator of West Texas Museum.</i> Office, 110, Administration Building.
MARY WOODWARD DOAK, <i>Dean of Women.</i> Office, 107, Administration Building.
JAMES G. ALLEN, <i>Dean of Men.</i> Office, 114, Administration Building.
WILLIAM THOMAS GASTON, <i>Business Manager and Secretary of Board of Directors.</i> Office, 102, Administration Building.
WARREN PERRY CLEMENT, <i>Registrar.</i> Office, 111, Administration Building.
ELIZABETH HOWARD WEST, <i>Librarian.</i> Office, 209, Library Building.
FRANK ANDREW PETTIT, <i>Captain, Corps of Engineers, United States Army; Professor of Military Science and Tactics.</i> Office, M. S. Building.
HARRY L. KENT, <i>Administrative Assistant.</i> Office, 217, Administration Building

## OFFICERS OF INSTRUCTION

The first date after the title indicates the year of first appointment to any position in the institution; the last date, the year of appointment to present rank.

- CLIFFORD B. JONES, *President*, 1939.  
LL.D., McMurry College.
- WILLIAM HENRY ABBITT, *Professor of Physics*, 1926.  
B. A., Virginia; Ph. D., Chicago.
- OTTO VINCENT ADAMS, *Dean of Engineering and Professor of Civil Engineering*, 1927, 1932.  
B. S. in C. & I. E., Colorado Agricultural College; M. S. E., Michigan.
- DOUGLAS W. ALDEN, *Instructor in French*, 1938.  
A. B., Dartmouth; A. M., Ph. D., Brown.
- JAMES G. ALLEN, *Associate Professor of English and Dean of Men*, 1927, 1931, 1937.  
B. A., Southern Methodist University; M. A., Harvard.
- LILA ALLRED, *Instructor in Clothing and Textiles*, 1939.  
B. S., M. S., Texas Technological College.
- MARGARET BRASHEARS ATKINSON, *Instructor in Engineering Drawing*, 1934.  
B. S., Texas State College for Women.
- ARCHIE J. BAHM, *Assistant Professor of Philosophy and Sociology*, 1934, 1937.  
B. A., Albion; M. A., Ph. D., Michigan.
- ALBERT BARNETT, *Professor of Education and Assistant Dean of Division of Arts and Sciences*, 1933, 1939.  
B. S., M. A., Ph. D., Peabody College.
- MARGARET BASKIN, *Instructor in Physical Education for Women*, 1935.  
B. A., Texas Technological College.
- JULIEN PAUL BLITZ, *Professor and Head Department of Music*, 1934.  
Laureate cum Laude, Royal Government Conservatory, Ghent, Belgium; D. Mus., Austin College.
- EDNA WALKER BUSTER, *Associate Professor of Clothing and Textiles*, 1927, 1930, 1937.  
B. S., Texas State College for Women; M. A., Columbia.
- SANNIE CALLAN, *Professor and Head Department of Child Development and Family Relations*, 1936, 1937.  
B. S., Pittsburgh; M. A., Columbia.
- TRUMAN W. CAMP, *Assistant Professor of English*, 1935, 1939.  
B. A., Ph. D., Yale.
- PETER WILLIS CAWTHON, *Professor and Head Department of Physical Education for Men*, 1930.  
Southwestern University.
- RAY L. CHAPPELLE, *Professor and Head Department of Agricultural Education*, 1936, 1937.  
B. S., Agricultural and Mechanical College of Texas; M. S., Texas Technological College.
- LYDD CLINE CHRISTIANSON, *Instructor in Mathematics*, 1928, 1931.  
B. A., Westminster; M. A., Missouri.
- HENRY PENNOCK CLAY, *Assistant Professor of Agricultural Engineering*, 1935.  
B. S., Michigan State College.
- GERALDINE CLEWELL, *Instructor in Home Economics Education*, 1935.  
B. S., Texas Technological College; M. S., Iowa State College.
- LEWIS B. COOPER, *Associate Professor of Education and Psychology*, 1938.  
B. A., M. A., Texas; Ph. D., Cincinnati.



- WILLIAM MOORE CRAIG, *Professor of Chemistry, 1926.*  
B. A., M. A., Southwestern; M. A., Texas; Ph. D., Harvard.
- MOZELLE CRADDOCK, *Manager and Dietitian of the Dormitories, Professor of Institutional Management, 1934.*  
B. S., Texas; M. A., Chicago.
- ALBERT BENJAMIN CUNNINGHAM, *Professor of English, 1929, 1930, 1937.*  
B. A., Muskingum; B. D., Drew University; M. A., Ph. D., New York.
- JAMES WILLIAM DAVIS, *Instructor in Government, 1938.*  
B. A. Agricultural and Mechanical College of Texas; M. A., Texas.
- CHARLES GARFIELD DECKER, *Instructor in Civil Engineering, 1938.*  
B. S., M. S. in C. E., Michigan.
- GEORGIA WILSON DINGUS, *Assistant Professor of Latin, 1929, 1931.*  
B. A., Texas; M. A., Texas Technological College.
- MARY WOODWARD DOAK, *Professor of English, and Dean of Women, 1925.*  
B. A., Texas; M. A., Texas Technological College.
- BONNIE K. DYSART, *Associate Professor of Education and Psychology, 1927, 1928.*  
B. S., M. A., Texas.
- CHARLES DUDLEY EAVES, *Professor of History, 1925.*  
B. A., Texas; M. A., Chicago.
- JOHN ORVAL ELLSWORTH, *Professor and Head Department of Economics and Business Administration, 1928, 1937.*  
B. S., Utah State Agricultural College; M. S., Ph. D. Cornell.
- MAURICE JACK ERICKSON, *Instructor in Economics and Business Administration, 1936.*  
B. A., Kansas; M. A., Nebraska.
- MABEL D. ERWIN, *Professor and Head Department of Clothing and Textiles, 1926.*  
B. S., Purdue; M. S., Columbia.
- ARTHUR WILSON EVANS, *Professor and Head Department of Education and Psychology, 1925.*  
B. A., Oxford College; M. A., Ph. D., Texas.
- NEIL CASEY FINE, *Assistant Professor of Animal Husbandry, 1935, 1937.*  
B. S., Texas Technological College.
- CHARLES C. GALBRAITH, *Instructor in Chemistry, 1929, 1933, 1934.*  
B. S., Trinity.
- RAYMOND ERNEST GARLIN, *Professor of Education, 1927.*  
B. A., M. A., Ph. D., Texas.
- EUNICE JOINER GATES, *Associate Professor of Spanish, 1925, 1931, 1936, 1937.*  
B. A., M. A., Southwestern; M. A., Michigan; Ph. D., Pennsylvania.
- WILLIAM BRYAN GATES, *Professor of English, 1925, 1933, 1935, 1936.*  
B. S., Millsaps; M. A., Vanderbilt; M. A., Michigan; Ph. D., Pennsylvania.
- ENOCH FRANKLIN GEORGE, *Professor and Head Department of Physics, 1925.*  
B. S., Valparaiso University; B. A., M. A., West Virginia; Ph. D., Ohio State University.
- LUCILE AVO POWELL GILL, *Assistant Professor of English, 1926, 1937.*  
B. A., M. A., Texas.
- WALDO S. GLOCK, *Instructor in Geology, 1938.*  
B. A., Iowa; Ph. D., Yale.
- HARRY FREDERICK GODEKE, *Professor and Head Department of Mechanical Engineering, 1930.*  
B. S. in M. E., M. S., Illinois.
- ROBERT CABANISS GOODWIN, *Professor and Head Department of Chemistry and Chemical Engineering, 1930.*  
B. A., Howard Payne; M. A., Texas; Ph. D., Harvard.

JAMES MARCUS GORDON, *Dean of Division of Arts and Sciences, Acting Head Department of Philosophy and Sociology, Director of the Summer Session, 1925, 1933, 1937, 1939.*

B. A., Trinity; M. A., Chicago; LL. D., Trinity.

WILLARD FRANKLIN GRAY, *Instructor in Electrical Engineering, 1937,*  
B. S. in E. E., Texas Technological College.

ALAN M. F. GUNN, *Associate Professor of English, 1939.*

A. B., Huron College; M. A., Denver; Ph. D., Princeton.

FRED G. HARBAUGH, *Associate Professor of Animal Husbandry and Veterinarian, 1927, 1935.*

B. S., D. V. M., Iowa State College.

JOHN COYNE HARDGRAVE, *Associate Professor of Mechanical Engineering, 1926, 1933, 1939.*

JOHN E. HARDING, *Instructor in Economics and Business Administration, 1937.*

B. A., Howard Payne; M. A., Texas Technological College.

LAURENCE G. HARMON, *Instructor of Dairy Manufactures and Creamery Superintendent, 1936.*

B. S. Kansas State College.

MARSHALL BENTON HARRISON, *Assistant Professor of Agricultural Economics and Farm Management, 1936.*

B. S. A., New Mexico Agricultural and Mechanical College; M. S., Kansas State College.

EMMETT A. HAZLEWOOD, *Assistant Professor of Mathematics, 1939.*

B. S., West Texas State Teachers College; M. A., Ph. D., Cornell.

HAROLD M. HEFLEY, *Instructor in Biology, 1939.*

B. S., M. S., Ph. D., Oklahoma.

ELLIS R. HEINEMAN, *Associate Professor of Mathematics, 1928, 1930.*

B. A., M. A., Wisconsin.

WILLIAM FRANK HELWIG, *Professor of Electrical Engineering, 1928, 1933, 1935.*

B. S. in E. E., Minnesota; M. S. in E. E., Texas; E. E., Minnesota.

CARL HENNINGER, *Associate Professor of Foreign Languages, 1926, 1929.*

B. A., Indiana; M. A., Illinois.

WILLIAM CURRY HOLDEN, *Professor and Head Department of History and Anthropology, 1929, 1933, 1936, 1937, 1938.*

B. A., M. A., Ph. D., Texas.

RUTH HORN, *Assistant Professor of English, 1932, 1933, 1939.*

B. A., M. A., Texas Technological College.

CECIL HORNE, *Professor and Head Department of Journalism, 1926, 1929, 1937.*

B. A., Baylor; B. A., Yale.

EDNA HOUGHTON, *Instructor in Architecture and Allied Arts, 1932, 1933.*

B. S. in A. E., Texas Technological College.

ORVILLE BRACKETT HOWELL, *Professor of Horticulture, 1935, 1937.*

B. S., M. S., Michigan State College.

GEORGE BERL HUFFMAN, *Assistant Professor of Physical Education for Men, 1935.*

B. S., Trinity.

ZELLA R. HUFFMAN, *Assistant Professor of Physical Education for Women, 1928.*

B. A., Central College.

DOYLE D. JACKSON, *Associate Professor of Education, 1934.*

B. A., M. A., Texas; Ph. D., Arizona.

J. W. JACKSON, *Associate Professor of Government, 1929, 1935, 1938.*

B. A., M. A., Texas Technological College.

MAMIE WOLFFARTH JACKSON, *Assistant Professor of Typewriting and Stenography, 1928, 1930, 1938.*

B. A., M. A., Texas Technological College.

ADA VIVIAN JOHNSON, *Professor and Head Department of Home Economics Education, 1928, 1930, 1935, 1937.*

B. S., Southwest Texas State Teachers College; M. A., Columbia.

ONEIDA KENNEDY, *Instructor in English, 1937.*

B. A. Baylor; M. A., Columbia.

OSCAR ARVLE KINCHEN, *Professor of History, 1929, 1936, 1937, 1939.*

B. A., M. A., Oklahoma; Ph. D., Iowa.

HAROLD L. KIPP, *Associate Professor of Mechanical Engineering, 1938.*

B. S. in M. E., M. S. in M. E., Nebraska.

FLORIAN ARTHUR KLEINSCHMIDT, *Professor and Head Department of Architecture and Allied Arts, 1928.*

B. S. in Arch., Minnesota; M. in Arch., Harvard; Diplome d' Architecture, Ecole des Beaux Arts Americaine, Fontainebleau, France.

JOHNNYE GILKERSON LANGFORD, *Associate Professor and Head Department of Physical Education for Women, 1925, 1927, 1934.*

B. B. A., Texas; M. A., Southern California.

T. L. LEACH, *Associate Professor of Agricultural Education and Itinerant Teacher Trainer, 1937, 1939.*

B. S., M. S., Texas Technological College.

BESSIE BEAKLEY LEAGUE, *Associate Professor of Biology, 1926, 1927.*

B. A., M. A., Ph. D., Texas.

ARTHUR HENRY LEIDIGH, *Dean of Agriculture and Professor of Agronomy, 1925.*

B. S., Kansas State College; M. S., Agricultural and Mechanical College of Texas.

ROBERT IVAN LOCKARD, *Assistant Professor of Architecture and Allied Arts, 1935.*

B. S. in Arch., M. S. in Arch., Kansas State College.

JOSEPHINE LOONEY, *Instructor in Clothing and Textiles, 1933.*

B. S., Minnesota; M. A., Columbia.

ELMER LEON MCBRIDE, *Professor and Head Department of Agricultural Economics, Farm Management, and Rural Sociology, 1935, 1936, 1937.*

B. S., M. S., Oklahoma Agricultural and Mechanical College.

JONNIE McCrERY, *Professor and Head Department of Foods and Nutrition, 1925.*

B. S., M. A., Columbia.

FLORA POWELL MCGEE, *Associate Professor of English, 1925.*

B. A. Colorado College; M. A., Peabody College.

SETH SHEPARD MCKAY, *Professor of History, 1928.*

B. A., M. A., Ph. D., Pennsylvania.

FITZHUGH LEE MCREE, *Associate Professor of Civil Engineering, 1927, 1928, 1935.*

B. S. in C. E., M. S. in C. E., Texas.

HULDA WILD MARSHALL, *Assistant Professor of Chemistry, 1925, 1937.*

B. A., Texas; M. A., Texas Technological College.

JAMES NEWTON MICHIE, *Professor and Head Department of Mathematics, 1925.*

B. S. in Engineering, Virginia; M. A., Michigan.

RUFUS ARTHUR MILLS, *Professor of English, 1926.*

B. A., M. A., Texas.

RAY C. MOWERY, *Professor of Animal Husbandry, 1926, 1935.*

B. S., Agricultural and Mechanical College of Texas; M. S., Iowa State College.

JAMES HAROLD MURDOUGH, *Professor and Head Department of Civil Engineering, 1925, 1927.*

S. B. in C. E., Massachusetts Institute of Technology; M. S. E., Michigan.

DONALD VAN DALE MURPHY, *Associate Professor of English, 1926, 1928 1935.*

B. A., Tulsa; M. A., Columbia.

LOYAL F. OLLMAN, *Instructor in Mathematics, 1939.*

A. B., Ripon College; M. A., Wisconsin; M. S., Ph. D., Michigan.

DEAN R. PARKER, *Instructor in Biology, 1939.*

B. A., Ph. D., Texas.

GORDON WIGHT PARKHILL, *Associate Professor of Civil Engineering, 1932, 1935.*

B. S. in C. E., Agricultural and Mechanical College of Texas.

LEROY THOMPSON PATTON, *Professor and Head Department of Geology and Petroleum Engineering, 1925.*

B. A., Muskingum College; B. S., Chicago; M. S., Ph. D., Iowa.

HARDISON CECIL PENDER, *Professor and Acting Head Department of Government, 1926, 1927, 1937, 1938.*

B. A., North Texas State Teachers College; M. A., Baylor.

ANNAH JO PENDLETON, *Professor of Speech, 1927.*

B. A. and Diploma in Oratory, Texas Christian University; Diploma School of Speech, Northwestern University; M. A., Iowa.

CONNER COLUMBUS PERRYMAN, *Assistant Professor of Industrial Engineering and Engineering Drawing, 1929, 1935.*

B. S., North Texas State Teachers College.

RUTH PIRTLE, *Professor and Head Department of Speech, 1925, 1928.*

B. S., M. A., and Diploma as Teacher of Speech Education, Columbia; Hickman School of Speech Arts; Lyceum Arts Conservatory; Colorado; California; Curry School of Expression, Boston.

ELLSWORTH HARVEY PLANK, *Professor of Economics and Business Administration, 1933, 1934.*

B. S., M. S., Oregon; Ph. D., Stanford.

MARTYE POINDEXTER, *Professor and Head Department of Applied Arts, 1935.*

Ph. B., Chicago; M. A., Texas State College for Women.

CHARLES BLAISE QUALIA, *Professor and Head Department of Foreign Languages, 1925, 1932, 1937.*

B. A., M. A., Ph. D., Texas.

EDWARD LOOMAN REED, *Professor of Botany, 1926, 1929.*

B. A., Oklahoma Baptist College; M. S., Ph. D., Chicago.

KENNETH MILLER RENNER, *Professor and Head Department of Dairy Manufactures, 1927, 1931.*

B. S., Iowa State College; M. S., Kansas State College.

L. C. REITHMAYER, *Instructor in Government, 1938.*

B. A., M. A., Texas Technological College.

TRENT CAMPBELL ROOT, *Professor of Economics and Business Administration, 1926, 1936, 1937.*

B. A., Baylor; M. B. A., Harvard.

VALERIE SCHNEIDER, *Associate Professor of Chemical Engineering, 1934.*

B. S. in Ch. E., M. S. in Ch. E., Texas; Sc. D., Massachusetts Institute of Technology.

JESSE Q. SEALEY, *Assistant Professor of Biology, 1928.*

B. A., M. A., Texas.

JAMES THOMAS SHAVER, *Associate Professor of Education, 1927.*

B. S., Sam Houston State Teachers College; M. A. Columbia.

RAYMOND GILBERT SIDWELL, *Associate Professor of Geology, 1928.*

B. A., M. A., Ph. D., Iowa.

GEORGE SMALLWOOD, *Professor of English, 1925.*

B. A., Southwestern; M. A., Southern Methodist University.

RUSSELL T. SMITH, *Professor of Physical Education for Men, 1930.*

B. A., Austin College.

WILLIAM MACKEY SLAGLE, *Associate Professor of Chemistry, 1926, 1928, 1937.*

B. A., Southwestern; M. A., Texas

WENZEL LOUIS STANGEL, *Professor and Head Department of Animal Husbandry, 1925.*

B. S., Agricultural and Mechanical College of Texas; M. S., Missouri.

CASSIUS MILLER STANLEY, JR., *Assistant Professor of Textile Engineering, 1937.*

B. S. in T. E., Alabama Polytechnic Institute.

OSCAR A. ST. CLAIR, *Professor and Head Department of Industrial Engineering, and Engineering Drawing, 1934.*

B. S. in E. E., Armour Institute of Technology.

ALFRED BELL STREHLI, *Assistant Professor of Foreign Languages, 1928.*

B. A., B. S., M. A., Ohio.

ALAN LANG STROUT, *Professor of English, 1928, 1930, 1937.*

B. A., Dartmouth; M. A., Chicago; M. A., Wisconsin; Ph. D., Yale.

RICHARD ARTHUR STUDHALTER, *Professor and Head Department of Biology, 1925.*

B. A., Texas; M. A., Washington University; Ph. D., Chicago.

HASKELL GRANT TAYLOR, *Instructor in Economics and Business Administration, 1937.*

B. B. A., M. A., Texas Technological College.

GUSSIE LEE TEAGUE, *Assistant Professor of English, 1926, 1937.*

B. A., Oklahoma; M. A., Colorado.

ANN ALDEN TROTTER, *Part Time Instructor in Music, 1939.*

AGNES ANN TRUE, *Associate Professor of Education and Psychology, 1934.*

B. A., M. A., Ph. D., Michigan.

MAYME LUCINDA TWYFORD, *Associate Professor of Foods and Nutrition, 1928.*

B. S., West Virginia; M. A., Columbia.

ERNEST WALLACE, *Instructor in History, 1936.*

B. S., East Texas State Teachers College; M. A., Texas Technological College.

JOHN NEAL WATSON, *Instructor in Speech, 1939.*

B. S., North Texas State Teachers College; M. A., University of Southern California.

MARGARET WATSON WEEKS, *Dean of Home Economics and Professor of Nutrition, 1925.*

B. A., M. S., Columbia.

DEWEY O. WILEY, *Associate Professor of Music and Director of Band, 1934.*

B. Mus., Simmons; Pupil of Carl Venth, E. Clyde Whitlock, Jacques Gordon.

RAMOND HENDRY WILLIAMS, *Instructor in Architecture and Allied Arts, 1938.*

B. S., Utah; M. S. in Art Education, Wisconsin.

MARGARET ELIZABETH WINKLEHAKE, *Assistant Professor of Home Management, 1937.*

B. S., M. A., Missouri.

ILSE WOLF, *Associate Professor Home Economics Education and Itinerant Teacher Trainer, 1939.*

B. S., Texas Technological College; M. A., Texas.

MINA MARIE WOLF, *Assistant Professor of Foods and Nutrition, 1940.*

B. S., M. S., Texas Technological College.

WARREN WATSON YOCUM, *Associate Professor of Horticulture, 1937.*

B. S., State Teachers College, Kirksville, Missouri; M. A., Missouri; Ph. D., Nebraska.

ARTHUR W. YOUNG, *Professor and Head Department of Plant Industry, 1935, 1937, 1938.*

B. S., M. S., Ph. D., Iowa State.

## VISITING TEACHERS

GRACE BAKER HILL, *Special Instructor in Hand Weaving; Supervisor W. P. A. Weaving Project, Lubbock, Texas.*

B. A., West Virginia; M. S., Iowa State College

W. B. IRVIN, *Lecturer in Education, Superintendent of Lubbock City Schools.*

B. A., M. A., Simmons; Ed. D., Texas

WALTER S. KNOX, *Special Teacher in Physical Education; Professor of Physical Education, University of Hawaii.*

A. B., Iowa; M. A., Texas Christian University; Ph. D., Iowa.

CLYDE MOBLEY, *Visiting Professor, Home Economics Education; State Supervisor of Home Economics, State Department of Education, Baton Rouge, La.*

B. S., M. S., Peabody College.

L. H. MOORE, *Lecturer in Education; Associate Professor of Philosophy and Education, Texas State College for Women, Denton.*

B. A., East Texas State Teachers College; M. A., Ph. D., Texas.

PAULA MYLER, *Instructor in Physical Education for Women; Teacher of Physical Education, Amarillo High School, Amarillo, Texas.*

B. S., M. Ed., Texas

CHARLES M. ROGERS, *Lecturer in Education; Superintendent, City Schools, Amarillo, Texas.*

B. A., Mississippi College; M. A., Texas Technological College.

ERMA HARRIET WINES, *Instructor in Foods and Nutrition; County Home Demonstration Agent in Jim Wells County, Texas.*

B. S., Texas College of Arts and Industries.

## DIVISION OF MILITARY SCIENCE AND TACTICS

FRANK ANDREW PETTIT, *Captain, Corps of Engineers, United States Army; Professor of Military Science and Tactics.*

B. S., United States Military Academy; B. S., California.

## DIVISION OF GRADUATE STUDIES

ROBERT CABANISS GOODWIN, *Dean of the Division of Graduate Studies and Director of Scientific Research; Professor and Head Department of Chemistry and Chemical Engineering, 1930, 1938.*

B. A., Howard Payne; M. A., Texas; Ph. D., Harvard.

## DIVISION OF EXTENSION

JULIUS FLAKE McDONALD, *Director of Extension, 1926.*

B. A., Baylor; B. A., Yale; M. A., Chicago.

BARRY HOLTON, *Correspondence Instructor.*

Ph. B., Notre Dame; M. A., Southern Methodist.

## INSTRUCTORS IN SPECIAL DEPARTMENTS

(Available to students, but not paid from College Funds)

## INSTRUCTORS IN MUSIC

FLORA BRIGGS BLITZ, *Piano, Piano Accompaniment, and Keyboard.*

Pupil of Marcian Thalberg, Cincinnati Conservatory; John Steinfeldt, San Antonio College of Music.

BUELAH DUNN, *Violin.*

B. Mus., Chicago Musical College.

MYRTLE DUNN, *Voice, Piano, Piano Accompaniment, and Keyboard.*

B. Mus., Chicago Musical College.

ESTELLE GEORGE, *Piano, Piano Accompaniment, and Keyboard.*

B. Mus., Cincinnati Conservatory.

MARGARET HUFF, *Piano, Organ, Piano Accompaniment and Keyboard.*  
B. Mus., American Conservatory of Music.

EMMA SLATER SCOGGIN, *Voice.*  
Graduate of College of Music, Ottawa University.

#### INSTRUCTORS IN BIBLICAL LITERATURE

WILLIAM FRANCES FRY, *Biblical Literature, under the auspices of the Baptist General Convention of Texas.*  
B. A., M. A., Wake Forest; D. D., Simmons.

DONALD F. WEST, *Biblical Literature, under the auspices of the Disciples of Christ Churches.*  
B. A., Chapman College; B. D., Yale.

#### LIBRARY STAFF

ELIZABETH HOWARD WEST, *Librarian, 1925.*  
B. A., Mississippi State College for Women; B. A., M. A., Texas.

EMMA LILLIAN MAIN, *Assistant Librarian, 1926.*  
B. A., North Texas State Teachers College.

LULU STINE, *Cataloguer, 1930.*  
B. A., Texas; M. A., Texas Technological College.

VIOLET MADELINE MATTSON, *Reference Librarian, 1935.*  
B. A., M. A., Rice; B. S. in L. S., Louisiana State.

LUELLA SYBIL RYSTROM, *Loan Librarian, 1937.*  
B. A., M. A., Nebraska.

RUTH SPALDING, *Loan and Reference Assistant, 1938.*  
B. A., Mary Hardin-Baylor; B. S. in L. S., Illinois.

GERTRUDE BRANDES, *Loan and Reference Assistant, 1939.*  
A. B., Baylor; B. S. in L. S., Columbia.

#### SUMMER SCHOOL COMMITTEE

CLIFFORD B. JONES, *President, Ex-Officio*

A. H. LEIDIGH

O. V. ADAMS

MARGARET W. WEEKS

R. C. GOODWIN

A. W. EVANS

W. P. CLEMENT

J. M. GORDON, *Chairman*

## SUMMER SESSION, 1940

In planning the program for the summer session of 1940, the College has endeavored to offer the instruction which will most efficiently meet the needs and desires of its summer students.

As the summer session is an integral part of the College year, ample opportunity is provided for the undergraduate student to meet his curriculum requirements. The advanced student is likewise offered a large number of courses.

The courses, recreational opportunities, and special summer features arranged for this year are presented in this bulletin. Attention is called to the special educational opportunities, extending beyond the limits of the curricula and the classrooms, designed to contribute to the social life and satisfaction of the summer students.

Lubbock is an ideal place to combine summer study and recreation in the pleasant climate of high, dry West Texas, where the cool nights are invigorating. Visits may be made to nearby mountain areas, parks, and other points of interest.

The summer session aims to serve the following groups:

1. Regular students who wish to reduce the customary four years of college work to three.
2. Regular students who, because of necessary delays or because of failures, find their courses to be irregular and need to do summer work for this reason.
3. Teachers who desire the refreshing contact with instructors or who wish to complete requirements for certificates or degrees.

## TWO TERMS IN THE SUMMER SESSION

The summer session is divided into two terms of six weeks each. The first term begins June 6 and closes July 15; the second term begins July 16 and closes August 23. Students may enroll for either or both terms.

## COURSES ON SEMESTER BASIS

The work of the summer session is outlined on the semester basis; that is to say, classes meet for approximately one hour and thirty minutes each day so that a regular three-semester-hour course can be completed in a six-week term. The normal amount of work, therefore, is two three-semester-hour courses per term. Some courses are organized on a two-semester-hour basis, in which case classes meet one hour each day.

In certain of the laboratory sciences, field courses and a few other subjects, the work is so arranged that a student may complete the full year's work in six weeks. The schedule of recitations shows where this is possible.

## DEGREES OFFERED

The regular undergraduate degrees are given, namely, bachelor of arts, bachelor of business administration, bachelor of science in Agriculture, Engineering with fields named, and in Home Economics, bachelor of architecture, bachelor of commercial art, bachelor of science in the various sciences, and bachelor of science in education. While all these degrees are standard, the number of semester hours required varies according to the curriculum followed. In some of the degrees foreign language is required, whereas in others, a larger amount of science or other technical subjects is required. Two graduate degrees are given, master of arts and master of science. A full discussion of the requirements for both undergraduate and graduate degrees will be found in the general catalogue.



### BACHELOR OF SCIENCE IN EDUCATION

This degree has been designed specifically for teachers who wish to teach in the various divisions of the public schools. In meeting the requirements for this degree, a student may offer a major or minor in social science, general science, physical education, primary and elementary education, as well as subject matter courses in the various departments. The College proposes just as far as possible to meet the latest requirements laid down by the State Board of Education.

### THE LIBRARY

The Library, housed in the new Library building completed in 1938, is available to summer school students. Reading rooms and staff offices are on first and second floors; there are also seminar rooms, which are now being used for offices and classrooms. In the tower are private study rooms for faculty members engaged in research. The ground floor is now being used mainly for classrooms, but is constructed so as to be readily convertible into rooms suitable for library use when necessary. There is seating capacity for approximately 1,000 when the reading rooms and seminar rooms are completely furnished for library use.

The Library is well supplied with subject matter indexes; magazines of current and special interest; dictionaries, English and foreign; special encyclopedias; atlases, treatises on subjects taught in the College, and other basic reference materials. At present, the Library contains approximately 67,036 catalogued volumes.

The Library will be open during the summer school from 7:00 a.m. to 9:00 p.m. on Mondays through Fridays, from 7:00 a.m. to 5:00 p.m. on Saturdays, and from 2:00 to 6:00 on Sunday afternoons.

### THE COLLEGE BOOKSTORE

The College Bookstore, located on the campus, is owned and operated by the College. The Bookstore carries in stock all required textbooks, books for extension courses, all supplies and equipment needed in any of the specialized courses, and an assortment of stationery and athletic supplies. At the end of the summer term the Bookstore will purchase from students any books which are to be used in the College the following year.

### THE DORMITORIES

Two of the well equipped College dormitories will be open to summer school students and teachers. These dormitories, located on the campus, each with a capacity of 320 persons, represent a cost of approximately \$325,000 each.

### SUMMER SESSIONS IN THE LOCAL CITY SCHOOLS

Fathers and mothers attending the summer session of the College will likely be interested to know that their children will have access to the summer school conducted by the Lubbock City Schools. Work will be offered in all grades from one to seven and in high school. Those interested should address Superintendent W. B. Irvin for full information regarding courses and tuition charges. The term opens May 29, and closes July 13.

### ADMISSION

The Registrar of the College has charge of Admission to any division of the College. All communications regarding admission requirements should be addressed to him.

### ADMISSION REQUIREMENTS FOR THE FOUR DIVISIONS OF THE COLLEGE

*Unit Requirements.* Fifteen units of credit in an accredited high school or other accredited secondary school with graduation, are required for admission to Texas Technological College. No credit may be obtained without graduation. The following units are required by groups:

1. English (required of every student) .....	3
2. Mathematics (See Group A) .....	2
This requirement applies to all divisions except Engineering where 3 units in Mathematics are required, as follows: **Algebra 2, Plane Geometry 1; or *Algebra 1½, Plane Geometry 1, Solid Geometry or Trigonometry ½.***	
3. Two units each from any two of the three other divisions in Group A below (Social Science, Natural Science, Foreign Language) .....	4
4. Additional from any division or divisions of group A .....	2
5. Additional from Group A or from Group B, or Group A and B together .....	4
Total .....	15

#### GROUP A

(This column under units shows the number of units which may be offered in each subject.)

Subject	Units	Subject	Units
<i>English Division</i>		<i>Mathematics Division</i>	
English .....	3-1	Algebra .....	1-1½-2
<i>Foreign Language Division:</i>		Plane Geometry .....	1
French .....	1-4	Solid Geometry .....	½
German .....	1-4	Trigonometry .....	½
Greek .....	1-4	General Mathematics .....	½
Latin .....	1-4	<i>Social Science Division</i>	
Spanish .....	1-4	Early European History .....	1
Czech .....	1-4	Ancient History .....	1
<i>Natural Science Division</i>		Modern European History .....	1
Biology .....	1	World History .....	1
Botany .....	1	English History .....	½-1
Chemistry .....	1	American History .....	½-1
General Agriculture .....	½-1	Texas History .....	½
General Science .....	1	Civics .....	½-1
Physics .....	1	Economics .....	½
Physiography .....	½	Sociology .....	½
Physiology and Hygiene .....	½-1		
Zoology .....	1		

#### GROUP B

##### Vocational

Subject	Units	Subject	Units
Agriculture .....	½-4	Music .....	1
Commercial Arithmetic .....	½	Public Speaking .....	½-1
Bookkeeping .....	1	Shorthand or typewriting .....	½-1
Drawing .....	1-4	Any subject accepted by an accredited secondary school for its diploma (except drill subjects such as penmanship, military training, etc.)	
Commercial Geography .....	½		
Commercial Law .....	½		
Home Economics .....	½-4		
Manual Training .....	1-4		

\* Provided ½ unit of Algebra is taken during the senior year in high school.

\*\*Under certain conditions General Mathematics may be substituted for Elementary Algebra.

\*\*\*If the student enters as an engineer the one unit additional mathematics under 2 may be taken from the subjects in 4 or 5, the total remaining 15.

**NOTE:** A maximum of 4 units of vocational subjects will be accepted for admission to the Division of Arts and Sciences and to the Division of Engineering; for admission to the Division of Agriculture and to the Division of Home Economics a maximum of 5 such units will be accepted. A minimum of one unit in a foreign language may be accepted as elective credit.

### HIGH SCHOOL CREDENTIALS

*Transcript.* A student proposing to enter college for the first time should see that the high school principal forwards to the Registrar of Texas Technological College, two weeks before the opening of the semester in which he is to be enrolled, a transcript of his work in high school or any other secondary school, showing that he is a graduate of an accredited high school. New students entering college for the first time this summer should be sure that transcripts are received by the Registrar on or before June 1, 1940.

### ADMISSION BY TEACHER'S CERTIFICATE

An applicant holding a teacher's certificate based on State examinations is requested to submit his report from the State Board of Examiners and he will be given credit for recognized subjects on which he has passed the State examinations.

### ADMISSION OF TEACHERS WITHOUT TRANSCRIPTS

Public school teachers who are active in the service, and who do not plan to enroll for degree or certificate work in Texas Technological College may be admitted to summer school without the submission of a formal transcript of credits from other colleges. It is distinctly understood, however, that credits gained under this arrangement are not to be counted as credit toward a degree or certification until such transcript has been submitted. Students admitted to the summer school in this manner must present a complete transcript before being admitted to residence work in the long session.

### FOR ADMISSION BY EXAMINATION

#### ADMISSION OF MATURE STUDENTS ON CONDITION

#### ADMISSION WITH CONDITIONS

#### ADMISSION TO ADVANCED STUDIES

See statement in General Annual Catalogue.

### EXPENSES

Following are the charges per student for the twelve-week session:

Tuition at \$15.00 each six-week term .....	\$30.00
(Three credit hours or less, minimum per term, \$10.00)	
The uniform breakage deposit (refundable) .....	3.00
Recreation fee (not refundable) \$1.00 each term .....	2.00
Medical service fee (not refundable) .....	2.00
<b>TOTAL</b> .....	<b>37.00</b>

Tuition for a normal load (four to six semester hours) is \$15 for each six-weeks term; for one three-hour course, or its equivalent, the tuition is \$10. The breakage deposit and the medical service fee are the same for one or both terms, being paid only once. There are no laboratory charges, except for breakage. The deposit of \$3 is refundable upon the withdrawal of the student, less any charges for loss of library books, for fines, breakage in laboratories, or other legitimate charges against such a deposit.

## EXEMPTION FROM FEES BY REASON OF WAR SERVICE

Men and women who served during the Spanish-American War or during the World War in the armed forces of the United States or as nurses, and who are honorably discharged therefrom, are exempt from all tuition fees. The discharge papers or service record of the student making application under this provision must be presented to the business office at the beginning of the summer session. All other charges except tuition are required of ex-service students.

## STUDENT HOUSING EXPENSE

## BOARD AND ROOM IN THE DORMITORIES

The cost of board and room in the College dormitories will be \$37.50 per term of six weeks, the amount to be paid in advance. The cost for corner rooms will be \$40. There are a few single rooms with bath which may be had at a cost of \$50 for the six weeks, including board. Occupants of the dormitories are expected to furnish linens, towels, and other personal articles needed. Students who do not find it convenient to bring their furnishings can rent them from the dormitory at a cost of \$1.50 per term. Couples with children can be accommodated in one of the dormitories at the same rate per person.

## COST FOR BOARD AND ROOM OUTSIDE THE DORMITORIES

Outside the dormitories the cost of board and room for women students ranges from \$25 to \$27.50 a month, making it possible for one to live for approximately \$37 to \$40 a term. Rooms for light housekeeping privileges cost from \$7.50 to \$10 a month. The additional cost for supplies varies with the taste of the individual; many students have found that the total cost does not exceed \$18 to \$20 a month, making it possible to have light housekeeping privileges for approximately \$27 to \$30 a term.

Men students may secure board and room for \$22.50 to \$25 a calendar month, or \$33 to \$37 a term. Rooms with light housekeeping privileges are available for \$8 a month, making it possible for one to live for approximately \$16 to \$18 a month, or \$24 to \$27 a term.

All such rooms must be under the supervision of the College Committee on Student Housing. Approval of the students residence is required before registration.

*The Cooperative House.* Casa Linda, the campus cooperative house, is a stucco residence, two stories high, completely furnished except for bedding and linens which the students are expected to furnish. The house cares for seventeen women students and is under the direction of a member of the faculty. The work is done by the students themselves. A charge of \$17 a month is made. At the end of the month any excess of the cost is returned to the student. Application for residence in the cooperative house must be made through the office of the Dean of Women.

## ESTIMATED COST

Estimated cost for the summer session, using cost for board and room in the dormitories as a basis, is as follows:

	One Term	Two Terms
Tuition .....	\$15.00	\$30.00
(Three credit hours or less, minimum per term \$10.00)		
Board and room .....	37.50	75.00
Laundry .....	3.50	7.00
Breakage deposit (refundable) .....	3.00	3.00
Recreation fee .....	1.00	2.00
Medical service fee .....	2.00	2.00
<b>TOTAL</b> .....	<b>62.00</b>	<b>119.00</b>

### SOME GENERAL REGULATIONS

In the general catalogue will be found regulations with reference to absence from classes, double cuts for absences preceding or following holidays, adding subjects, dropping subjects, and changing sections in courses. Likewise, a full discussion is given in the general catalogue with reference to grades, course numbers, grade point requirements for graduation, withdrawal from College, suspension from College, et cetera. It is not deemed necessary to list these regulations in the summer school bulletin.

### HOUSING REGULATIONS FOR STUDENTS

Attention is called to certain housing regulations for both men and women, for full discussion of which reference is made in the fourteenth annual catalogue of Texas Technological College.

While brief reference has already been made to the dormitories, it seems advisable to call further attention to the three residence halls, two for men and one for women. Each of these halls is fireproof in construction, well furnished and fully equipped with modern facilities, including kitchen, dining room and social rooms, to minister to the comfort and social life of students. The College considers it a distinct educational advantage to students to live in these dormitories. Special programs for the benefit of those living in the dormitories will be conducted during the summer session. Reservations should be made in advance with Miss Mozelle Craddock, Manager of the Dormitories, Texas Technological College, Lubbock, Texas.

Students will be permitted to live in private boarding houses which have received the approval of the College authorities. Young women will live in places officially approved for women, and young men will live in places officially approved for men. It is not expected that men or women students will change their boarding places during the summer term without the knowledge and approval of the College authorities. For more complete regulations with reference to housing, see general catalogue.

### STUDENT LOAD

The normal load for any student in either of the summer terms is six semester hours. A student may not register for more than six semester hours in the first term, unless he has maintained during the preceding long session an average of at least B on a normal schedule of work. In no case will a student be permitted to register for or secure credit in more than fourteen semester hours in the two terms, including any correspondence work. The one-hour required physical education courses may be taken in addition to the maximum load allowed. Students who have not done work previously in Texas Technological College will regularly enroll for a maximum of six semester hours, exclusive of one-hour physical education courses. Graduate students are limited to six hours in either term, or twelve hours for the entire summer.

### SCHEDULE OF CLASSES

Three semester-hour classes recite one hour and twenty minutes net, e. g.

7:05—8:25

8:35—9:55

10:05—11:25

11:35—12:55

Two-semester-hour classes recite fifty minutes net, e. g.

7:05—7:55

8:05—8:55

9:05—9:55

10:05—10:55

11:05—11:55

12:05—12:55

Laboratories are three hours for a complete laboratory period including submission of data. A laboratory which meets once a week in the long session is held three times a week in the summer session. In some subjects which lend themselves to the practice, laboratory periods are consolidated or arranged to fit into the operating schedule in a different manner from that used during the long session.

#### AUDITING CLASSES

A general provision has been made in the College whereby students may audit classes during the long session by paying a certain fee. However, this does not obtain in the summer session and permission will not be granted to audit classes during the summer school. People eligible to enroll for classes may have the privilege of enrolling regularly upon the payment of the regular summer school fee.

#### RECREATION

Recreation activities this summer will follow somewhat the program begun last year. Provision has been made on the campus for an outdoor meeting place on the "Green" immediately south of the Administration Building. A varied program of educational and entertaining features will be presented at least four evenings each week. Admission to these recreational programs will be limited to holders of recreation tickets. Included in the program for the summer will be music, including band concerts; popular and educational lectures, both from the College staff and outside talent; and at least one major dramatic production of popular interest. Films, both silent and talking, will be shown at regular intervals, carrying educational and recreational features, along with news reels and shorts of various types.

It is planned that holders of recreation tickets will have subscription to the summer College paper, special rates at golf courses, local theaters, and the city swimming pool. A College dance program is proposed once each week, in addition to the other entertainment features to be held on the campus.

Season tickets are sold to non-student members of the student's family at the same rate as to students.

Members of the student body may secure admission to single numbers of the recreation program at special rates, but season ticket rates will be such that one normally will not wish to do this except under special conditions.

#### RECREATIONAL SPORTS FOR CHILDREN AND GROWN-UPS

The summer session, through the women's division of the Department of Physical Education, is instituting this summer a program of recreational sports which we hope will appeal to summer school people and to certain groups in Lubbock. For a nominal fee of \$1.50 per term, there will be a children's rhythm class, a children's tennis class, and certain kinds of recreational sports for adults. These include tennis, archery, badminton, dancing, golf, corrective exercises, and other activities that may be arranged if there is demand.

#### PHYSICAL EDUCATION FOR TEACHERS

Physical Education courses will be given in the summer to meet the requirements for physical education teachers and for classroom teachers.

#### SPECIAL COURSES IN MUSIC

All regular work in the department of music is covered in the uniform tuition fee charged all students of the College. Special fees are charged in music only in case special instructors are employed. The prices listed in each case are for a term of six weeks. The difference in prices do not imply a difference in the quality of the teaching.



Each teacher regulates her terms independently. For private work the charges are as follows:

Voice, Miss Myrtle Dunn, 2 lessons per week, per term (6 weeks) .....	\$18.00
Voice, Mrs. Carl Scoggin, 2 lessons per week, per term (6 weeks) .....	12.50
Piano, Miss Margaret Huff, 2 lessons per week, per term (6 weeks) .....	15.00
Piano, Miss Myrtle Dunn, 2 lessons per week, per term (6 weeks) .....	18.00
Violin, Miss Beulah Dunn, 2 lessons per week, per term (6 weeks) .....	15.00
Piano, Mrs. Julien Paul Blitz, 2 lessons per week, per term (6 weeks) .....	12.00
Piano, Mrs. E. F. George, 2 lessons per week, per term (6 weeks) .....	18.00

#### PIANO PRACTICE AND CHORUS

Practice studios with pianos are available on the campus and situated near the women's dormitory. Terms per semester: \$4.00 for one hour per day, \$2.00 for each additional hour. In order to obtain applied music credit under the above listed teachers, all voice and instrumental students are obligated to attend a seminar class held once a week. The student is not obligated to perform in this class, but he is obligated to attend.

College chorus 113 is offered during the second semester. The object of the course is to give experience in the singing of choruses which are used or can be used in the public schools.

#### SUMMER SCHOOL BAND

During the first six weeks of the summer session, there will be offered again an intensive course for band teachers and those wishing to further their musical education. A distinguished corps of teachers on the various instruments of the Band will be available for class instruction, and a great amount of musical material will be studied and played. Two or three bands will be available, to accommodate students at almost any stage of advancement. College credit, usually six semester hours, is given to students of college classification. Dr. A. H. Harding of the University of Illinois will again be one of the guest conductors.

For special bulletin on the Band School, communication should be addressed to D. O. Wiley, Director.

#### ACADEMIC REQUIREMENTS FOR ADMINISTRATORS AND TEACHERS

A full statement of the requirements for various classes of teachers' certificates will be found in our current general catalogue. For a more detailed and definite statement, reference is made to Bulletin No. 386 of the State Department of Education, **Standards and Activities of the Division of Supervision**. Courses in Education will be offered to meet requirements for teachers of the various grades and for principals and superintendents.

#### VISUAL AIDS IN EDUCATION

The Department of Education offers a course, Visual Aids in Education, Education 3315. The course proposes to show the use of excursions, museums, motion pictures, still pictures, and graphic materials in education, and to give some definite idea of the place of visual aids in the curricula of the public schools. The technique of operating various kinds of projection equipment is stressed. Both practical and technical, the course is conducted as a laboratory and a work shop and includes field trips and laboratory materials.

During the summer of 1939 a field trip to the West Texas Museum at Canyon was combined with an excursion to the Palo Duro State Park where motion and still pictures were made, and from the latter photograph slides were developed. Each member of the class produced several hand-made slides from individual kits and delineascope materials were prepared and

demonstrated. This summer the excursion will be planned by the class, and with our new dark-room laboratory the course should prove more serviceable to teachers.

Expenses of the course, including field trips, slide kits, photograph materials, etc., are approximately \$10 per student, and will be collected as needed by a secretary of the class.

#### TEACHER PLACEMENT BUREAU AND SERVICES

A teacher placement bureau is operated for the benefit of teachers and prospective teachers who desire to secure teaching positions, for which a minimum fee is charged. All students or graduates from all divisions of the College may avail themselves of these services. Address Teacher Placement Bureau, Texas Technological College.

Because of requirements governing the certification and employment of Vocational Home Economics or Vocational Agriculture teachers, special placement services are available as follows:

##### Division of Home Economics

Seniors, graduate students and alumnae are requested to fill out information blanks and file them in the Office of the Dean. From these blanks credentials are made up and are sent to prospective employers on their request. No charge, except for postage on the credentials sent out, is made for this service.

##### Division of Agriculture

The Agricultural Education Department at all times offers its services to superintendents, teachers and prospective teachers for proper placement of vocational agriculture teachers. Credentials are made up in uniform form for sending to prospective employers. Charges are made for postage.

#### DIVISION OF AGRICULTURE

It is the aim of the Division of Agriculture to offer all of its important courses on the average about once in three years in Summer School.

##### ADVANCED AGRICULTURAL COURSES

A number of courses are available this year for students who wish post-graduate credit. These include certain courses given only for post-graduate credit. An increased offering of work for students who can attend the College for only three weeks is available in this division. These courses carry one hour credit each and are offered in the schedule so that three of them may be taken at one time, thus affording three semester hours work in three weeks. The numbers of these special short term courses are in the 500 series of numbers with one hour credit, for instance 511.

Students of whatever classification entering for the first time can always find a full load of required courses.

##### SOIL EROSION AND SOIL CONSERVATION SHORT COURSE

A three credit hour course in Agronomy is of special value to employees in service as County Agricultural Agents, Vocational Agricultural teachers, and in the Soil Conservation Service and Farm Security Administration. It will carry full value in the College as an elective course. The course will be given if there is sufficient demand. The entire day will be required and no other subjects may be taken at the same time. See course description for Agronomy 434 taught the first three weeks.

##### SPECIAL COURSES FOR VOCATIONAL AGRICULTURE TEACHERS

Special courses for Vocational Agriculture teachers will be offered the first six weeks of the summer session.



### ADVANCED UNDERGRADUATE AND GRADUATE COURSES IN HOME ECONOMICS

The summer sessions provide a splendid opportunity for advanced work in the several fields of home economics. The summer program is planned so that qualified students may complete the work for the M. S. degree in four summers of twelve weeks each. In the 1940 Summer Session special attention will be given to courses for vocational home economics teachers.

In the first term the courses are planned for six weeks.

In the second term there are also the regular six-week courses and in addition special three-week courses.

Many of the regular home economics faculty will teach in the summer school. In addition specialists are brought in to teach the three-week courses.

### DIVISION OF ENGINEERING

#### SUGGESTIONS FOR ENGINEERING TRANSFER STUDENTS

Two courses are offered for the special benefit of student transfers from junior or other colleges, who are deficient in quantity or quality of work required by Texas Technological College. These two courses are Mechanical Engineering Problems—M. E. 221 and Engineering Drawing 111 (S), the latter a one-hour course for students who have had only sufficient drawing to transfer two (2) hours.

#### TRAFFIC SAFETY

The Department of Civil Engineering offers a three-credit-hour course, Traffic Safety Education, each term of the summer session.

The course, designated as Civil Engineering 435, deals with the following topics: study of the characteristics of the driver, driver and pedestrian responsibilities, sound driving practices, society's responsibilities. Particular emphasis will be placed on the methods of teaching traffic safety in the public schools.

Civil Engineering 435 may be used as a three-hour-credit course in education to carry either graduate or undergraduate credit. Also, the course has been approved by the State Department of Education as a three-hour advanced methods course.

#### TEACHING OF SAFETY

Industrial Education 332, Teaching of Safety, is offered in the first term of summer school. This course deals with safety in the school, on the farm, and, in less detail, in the home and in industry.

### CHANGE IN ENTRANCE REQUIREMENTS FOR DIVISION OF ENGINEERING

Beginning with the fall semester, 1940, one unit of physics will be required for entrance to the Division of Engineering. However, those who are able to present one unit of chemistry will be admitted to the division on condition. It is suggested that persons wishing to study Engineering and who are unable to present one unit of high school physics or its equivalent should attend our 1940 Summer School to study Physics 131-2, which will satisfy this requirement. Such persons may study additional subjects as for example government, mathematics, or drawing if they desire.

Persons deficient in high school algebra may remove this deficiency by passing Math 130, Algebra.

Persons who have not had plane geometry may obtain a course in this subject during summer school. See page 25.

## MEDICAL SERVICE

Medical service for students of the College will be given by the West Texas Hospital during the summer session, the cost for which will be \$2 for either or both terms. For students who have not presented a health certificate at this College since September 1, 1939, a medical examination is necessary. The cost of this examination is included in the \$2 fee. The examination may be had at West Texas Hospital on June 3, 4, 5, and 6. The examinations will be given at the College, Room 10 in the Library building.

In return for the \$2 fee per student, the College has the following agreement with West Texas Hospital.

1. The student will be given a medical examination on his entrance into school. In case of abnormalities, the student will be given advice with a recommendation as to treatment. This examination is not a complete examination in the clinic of the hospital.

2. The student will be allowed free consultation with the school physician at any time such consultation is desired.

3. The College physician will make, without further charge, calls at the student's home, or at the hospital.

4. Each student will, in case of necessity, have free use of the hospital facilities at West Texas Hospital, including board, lodging, and general nursing in the hospital, for a maximum of ten days in the summer session. These provisions apply only to the relief of acute conditions and do not include special nursing unless authorized by the President of the College in cases where students are financially unable to employ a nurse.

5. If an ambulance is required to carry the student to the hospital this will be furnished without additional charge.

6. The student will receive without further cost any pathological or X-ray examination which may be needed for treatment underway in the hospital.

7. Any minor surgical operations which may be needed by the student such as for cuts, sprains, simple fractures, and vaccinations against small-pox, and emergency operations for acute cases of appendicitis will be performed for him without further cost.

8. The student will receive without further cost examinations and treatment by specialists for eye, ear, nose and throat difficulties. This, however, does not include operations for the removal of tonsils or for chronic nasal diseases or for special operations on the eye or ear.

9. On all operative work not covered by the medical fee, students will receive a discount of 25 per cent from the regular charge.

10. First aid service and consultation with the school physician can be had at stated hours each day at an office provided by the College on the campus. This does not interfere with the provision in paragraph 3 above.

11. The West Texas Hospital agrees to report promptly to the Dean of Women of the College every case of illness among the women of the College and to report to the Dean of Men every case of illness among the men of the College with an adequate statement of the nature of the illness.

12. The West Texas Hospital agrees that all case records of students remaining in College after the period covered by this agreement will be available to the College authorities on request.

13. The West Texas Hospital agrees to furnish the College at the close of the summer session a full report of all services rendered to students under this agreement.

## FIELD COURSES

During each summer session the College sponsors certain courses that are given in the field. Numbered courses have stated prerequisites and carry regular resident college credit. Mimeographed instructions will be furnished each student, oftentimes before he is enrolled, giving in some detail the method of conducting the course, mode of transportation, approximate cost, and other information.

Certain requirements are made of students who enroll for field courses. These are: regular enrollment in College and payment of tuition fee, a medical examination or health certificate of recent date, and vaccination against typhoid fever, particularly for those who make the trip to Mexico. Health and accident insurance is definitely recommended as the College cannot assume responsibility for possible sickness and accident. The College medical service fee is not to be paid by students enrolling for these courses as this service is not available to off-campus students.

Further description of the courses listed below, showing amount of College credit carried, will be found in this Catalogue under the respective departments.

### BIOLOGY FIELD WORK

The Department of Biology will make a study trip of five days into the field in connection with Biology 131-2, The Natural History of Plants and Animals, which course will be otherwise taught on the campus. The period of June 24-28 will be occupied in biological study in the mountains of northern New Mexico at elevations up to 9400 feet. This trip, the cost of which will not exceed \$15, is not compulsory, but is highly recommended for students of Biology 131-2.

### HISTORY AND ANTHROPOLOGY FIELD COURSES

Two field courses in Mexican History and Archaeology will be given the first term of summer school, July 6 to July 14, in Mexico City. Anthropology 336-7 is for undergraduates, and Anthropology 531-2 is for graduates. These courses consist of lectures, reading, travel, inspection of ruins, museums, art galleries, palaces, and monuments. Official excursions will be made to Teotihuacan, Puebla, Cholula, Xochimilco, Cuernavaca, Taxco, and Tenehuca. The expense will be on a cooperative basis, and will be \$115 or \$120, depending on whether or not a person occupies a room without a bath, or a room with a bath attached. The amount includes transportation and maintenance from Lubbock to Lubbock and all official excursions. It does not include incidentals or the regular college registration. The registration fee is \$15. One should allow from \$25 to \$50 for incidentals, although students have made the trip on less. While in Mexico City the group stays at the Monte Carlo Hotel, a clean, comfortable, modest, native hotel, which serves food after the European fashion. The courses carry regular residence credit. A reservation fee of \$20 will hold one a place in the group. For reservations or for further information write Dr. W. C. Holden.

### GEOLOGY FIELD COURSE

The Department of Geology and Petroleum Engineering will conduct its regular field course, Geology 363, the first term of the summer school and will repeat it the second term. Advanced registration will be necessary to enroll for this field course. Six hours credit given each term. The field for the work of the 1940 season will be Capitan, New Mexico, quadrangle. A deposit of \$60.00 will be required of each student at the beginning of the course. This fund will be used to cover such necessary expenses as food, housing, transportation to and from the field, transportation in the field, ordinary medical service, field maps, field manuals, etc. Any unused balance remaining at the end of the term will be returned pro rata. This deposit does not include tuition and breakage deposit which each student will pay individually when registering for the course.

## R. O. T. C. SUMMER CAMP

The Division of Military Science and Tactics affords a Summer Camp, available to those students who have satisfactorily completed their third year of training in a Senior R.O.T.C Unit, the second and third year of which must have been with a Senior Engineer Unit. This camp will be held at Fort Logan, Denver, Colorado, from about June 5 to July 16, 1940. See course description material in this bulletin for further information.

Pay and Allowances: Quarters in camp and rations furnished. Pay during actual period at the rate of \$21.00 per month. Reimbursement of travel expenses to and from camp at the rate of five cents per mile.

Clothing: Prescribed uniform for wear on all occasions in camp, issued upon reporting at camp.

Students will not pay tuition and medical fee.

## ADVANCED COURSES IN GEOLOGY

Either Geology 431-2, Advanced General Geology, or Geology 433, Structural Geology, and Geology 434, Petroleum Geology, will be given, depending upon the demand. In either case, three semester hours will be completed the first three weeks and three semester hours the second three weeks. Students interested in either of the above courses should communicate with the Head of the Department.

## SPECIAL NON-CREDIT COURSES

## A NON-CREDIT COURSE IN PLANE GEOMETRY

For the benefit of students who have graduated from high school and have not had Plane Geometry, the College is offering through the Extension Division a non-credit course in Plane Geometry the first six weeks of the Summer School. It will be a double course, which means that the student's entire time will be given to the course. Satisfactory completion of the course will entitle the student to credit of one unit in Plane Geometry and will absolve the Plane Geometry requirement for admission to our freshman classes. The cost will be \$15.00, the same as the tuition for regular Summer School students.

Students interested should communicate at once with Mr. J. F. McDonald, Director of Extension, as the course cannot be given unless a sufficient number of people ask for it.

## THIRD ANNUAL SUMMER COURSE FOR PUBLIC HEALTH WORKERS AND SANITATION OFFICERS

During the summer of 1940, from June 6 to August 23, Texas Technological College, in cooperation with the Texas State Department of Health, will offer a course for public health workers and sanitation officers. This course will consist of lectures, laboratory exercises, demonstrations, and field inspection work. The instructors will be members of the teaching staff of Texas Technological College, visiting lecturers from the Texas State Department of Health, and others. This course will be similar to those conducted in 1938 and in 1939.

The course will be divided into two parts. During the first term the following topics will be covered: public health administration, communicable diseases, sanitary bacteriology and medical zoology, special subjects related to health, and milk sanitation. During the second term, work to be covered will include: waterworks, sewerage and sewage disposal, surveying, drawing, concrete making and placing, public speaking, community sanitation, and miscellaneous sanitation problems.

The course will be open to those who are regularly employed in sanitation work. Formal school work beyond high school is not necessary, and as

this is a non-college-credit short course, there are no college entrance requirements.

Registration fees for the full course will be \$30, which includes medical service fee. There will be a breakage deposit of \$3 required, any unused part of which will be refunded.

Depending on the type or rooming accommodation, board and room will be available at the College dormitories at from \$75 to \$100 for the season June 6 to August 23. Board and room off the campus may be obtained for about \$25 a month, which is about the same rate.

As the capacity is limited, it is suggested that reservations be made as soon as practicable. For further information, or to make reservations, write to J. H. Murdough, Chairman, Health Course Committee, Texas Technological College.

#### COTTON CLASSING SCHOOLS FOR SUMMER 1940

The Textile Engineering Department will conduct two short courses in Cotton Classing again this summer, both of which will be held in the cotton classing room in the Textile Engineering Building.

The first course will be held in the first two weeks of July, and the last session will be conducted during the last two weeks of the same month. The usual fee of \$10 per student will be charged for each two weeks course, and the course is opened to anyone interested in cotton. No college entrance requirements are necessary, and every farmer, ginner, cotton merchant, warehouseman, compressor, or teacher interested in the classification and the improvement of cotton in West Texas is invited to participate.

For the past several years, the College has conducted a two-weeks cotton school at Abilene and one at Quanah in addition to the regular two-weeks short course held on the campus. With the cooperation of those who are interested in this work at Abilene and Quanah, all of the short courses in cotton classing will be conducted on the campus this year. Arrangements have been made with the Men's Dormitory whereby any person attending the cotton classing school may obtain room and board for \$1.00 per day.

These cotton short courses are conducted with the cooperation of the State-Wide Cotton Committee of Texas, the Texas Cotton Ginners Association, the Texas Cotton Association, and the Division of Cotton Marketing, United States Department of Agriculture. The last few years the Texas Cotton Association has furnished some of the best cotton men in the trade to assist in these schools, and the Division of Cotton Marketing, United States States Department of Agriculture, has furnished a supervisor of cotton classification. The same policy will be continued this year as in previous years. Correspondence and inquiry should be directed to the Textile Engineering Department, Texas Technological College, Lubbock, Texas.

#### A CULTURAL TRIP SPONSORED BY SPEECH DEPARTMENT ALL EXPENSES \$160

For the past five summers Miss Ruth Pirtle, head of the speech department, has sponsored a non-credit, three-week student tour to New York City and Toronto, Canada. The tour will be repeated this summer. The group will leave July 18 and return August 8. While in New York the students will attend the theatre every day. This year some time will be spent at the World's Fair. Those interested in dramatics are taken to visit dramatic schools, theatrical equipment houses, lighting equipment houses, costume emporiums, art museums and bazaars. Interesting trips backstage after the plays are arranged and several famous producers and actors greet the students. Plans call for seven days in New York, two days in Philadelphia, three days in Washington, and two days in Niagara Falls and Toronto, Canada. Side trips will be made to West Point, Annapolis, Mount Vernon, Atlantic City, and numerous other places.

The expense of the trip including round trip fare, hotel rooms, food and all theatre and recreation tickets, will be \$160. The tour is to be made by private bus. Two drivers will be in charge. All travel is done in the daytime. Those interested should communicate with Miss Pirtle, and this should be done as early as practicable as the number will of necessity be limited.

Enrollment is not necessarily restricted to those enrolled at Texas Technological College.

### DIVISION OF GRADUATE STUDIES

The summer session is an ideal time to pursue graduate work at Texas Technological College. Continued emphasis is being placed on graduate work and every possible opportunity is provided for those mature students who may desire to complete the requirements for the Master's degree as well as for those who wish to refresh themselves in various fields of endeavor. The specialized research worker will find the summer session particularly opportune. The library and laboratories are even more available than during the regular session. Fewer interruptions will be encountered and every minute of the long and pleasant summer day may be utilized to the fullest extent.

A wide variety and number of courses are offered which may be applied to the fulfillment of the requirements for the degrees: Master of Arts, Master of Business Administration, Master of Education and Master of Science.

The degree, Master of Arts, may be received with majors in the Department of Biology, Chemistry, Economics and Business Administration, Education and Psychology, English, Foreign Languages, Geology, Government, History and Anthropology, Mathematics and Physics. Minor work for this degree may be secured in these and most of the other departments of the college, including Music (Band), Journalism, Philosophy and Sociology, and Speech.

The degree, Master of Business Administration, is offered for those students who have the prior degree, Bachelor of Business Administration, or its equivalent. Major fields of work for this degree may be selected from the following: Accounting, Finance, Industrial Management, Marketing, or Public Administration.

The degree, Master of Education, is especially designed for those students having the degree, Bachelor of Science in Education. Work leading to this degree, as well as the Master of Arts with a major in Education, includes courses in School Administration, Advanced Principles and Methods, Primary and Elementary Education, and Educational and Vocational Guidance.

To better accommodate graduate students, the Department of Education augments its regular staff each summer by the addition of nationally known instructors who are specialists in their particular fields.

The degree, Master of Science, is offered with majors in the departments of Agricultural Economics, Agricultural Education, Animal Husbandry, Dairy Manufactures and Plant Industry within the Division of Agriculture; in the departments of Chemistry, Geology, Mathematics and Physics within the Division of Arts and Sciences; in the department of Chemical Engineering within the Division of Engineering; and in the departments of Foods and Nutrition and Home Economics Education within the Division of Home Economics.

For more specific information concerning the requirements for the Master's degree, those interested are requested to write to the Registrar for a copy of the Graduate Bulletin.

### GRADUATE WORK IN PHYSICAL EDUCATION

The College is able for the first time to offer certain courses in Physical Education that will carry graduate credit and meet requirements for a minor towards a Master's degree. Modern Trends in Physical Education and Physical Examination in Physical Education, described in course set-up,



will be given during the First Term. Dr. Walter S. Knox will give the courses.

### DIVISION OF EXTENSION

Texas Technological College through the Division of Extension offers approximately two hundred and fifty courses to those who cannot attend the regular scheduled classes. Correspondence and extension class work offered by the Division of Extension have been approved by the Association of Texas Colleges, and the Division is a member of the National University Extension Association.

### CORRESPONDENCE COURSES

Correspondence courses are offered in Agricultural Economics, Agronomy, Animal husbandry, Anthropology, Applied Arts, Bible, Biology, Business Administration, Dairy Manufactures, Economics, Education, Engineering Drawing, English, French, Geography, German, Government, History, Horticulture, Journalism, Latin, Library Training, Mathematics, Music, Philosophy, Physical Education, Psychology, Rural Sociology, Sociology, and Spanish. Also, college admission subjects are available. Courses are offered in summer and long sessions. Credits count toward teacher's certificate and bachelor degree.

### EXTENSION CLASS CENTERS

Extension classes will be organized in convenient centers upon request of a sufficient number of students, depending upon the distance. Both graduate and undergraduate courses are available. The fee is \$5.00 per semester hour. Those interested in securing centers should communicate with the Director of Extension.

### NIGHT CLASSES ON THE COLLEGE CAMPUS

Night classes, meeting once or twice a week, as may be arranged, will be organized upon the request of a reasonable number, usually ten. Both graduate and under-graduate courses are available. Under-graduate courses given on the campus at night by extension carry residence credit. In some instances both credit and non-credit courses are given. The fee for any subject is \$5.00 per semester hour. A laboratory fee is charged for the laboratory sciences.

### COURSES FOR STUDY CLUBS

This service includes study outlines and lectures. Details will be given on request.

### SUPERVISED CORRESPONDENCE INSTRUCTION

Supervised correspondence courses will be given in convenient centers where ten or more request this service. Freshmen courses in English, foreign languages, government, history, and mathematics will be offered, on the college level. The plan will be given on request.

### VISUAL AIDS: MOTION PICTURES

Two hundred and fifty sound and silent motion picture films are available for reasonable rental fees. The list of subjects and the rates charged will be sent on request. Suitable for elementary and high school, and for junior and senior colleges.

### FURTHER INFORMATION

For further information in regard to any of the extension services listed above, please write the Division of Extension, Texas Technological College, Lubbock, Texas.

The summer school bulletin, necessarily abbreviated, cannot carry a full statement of the general regulations of the College. For all such regulations, specific requirements for graduation in the various curricula of each of the four divisions, and for general information, the student is referred to the annual catalogue. A copy of this bulletin and any further information with reference to the summer session may be had by addressing the Registrar.

## OUTLINE OF COURSES

The courses offered during the summer session are listed by Divisions, with the following information in consecutive order: Course number, description, semester hours credit, term offered, hour, days, room and instructor. The following symbols are used to designate the buildings in which the rooms are located: A—Agriculture; Ad—Administration; C—Chemistry; E—Engineering; H—Home Economics; P—Pavilion; T—Textile Engineering; L—Library.

## DIVISION OF AGRICULTURE

## AGRICULTURAL ECONOMICS AND FARM MANAGEMENT

## Agricultural Economics

234. **Principles of Agricultural Marketing.** 3 sem. hrs. 9 lecture hrs.  
Second term. 8:30-10 M-S, A109 Mr. Harrison
235. **Fundamentals of Economics.** 3 sem. hrs. 9 lecture hrs.  
First term. 10-11:30 M-S, A119 Mr. McBride
331. **Statistical Problems.** 3 sem. hrs. 9 lecture hrs.  
Second term. 7-8:30 M-S, A119 Mr. Harrison

## Rural Sociology

432. **Rural Sociology.** 3 sem. hrs. 9 lecture hrs.  
First term. 7-8:30 M-S, A119 Mr. McBride

## AGRICULTURAL EDUCATION

321. **Organization and Administration of Vocational Education in Agriculture.** 2 sem. hrs. 6 lecture hrs.  
First term. 11:30-1 MTTF, A109 Mr. Leach
423. **Problems.** 2 sem. hrs. 6 lecture hrs.  
First term. 7-8:30 MTTF, A123 Mr. Chappelle
511. **Problems.** 1 sem. hr. 6 lecture hrs.  
First term. 10-11:30 MTTF, A109 (Last 3 wks.) Mr. Chappelle
524. **Advanced Methods of Conducting and Promoting Group Activities of Immediate Importance to Future Farmers.** 2 sem. hrs. 6 lecture hrs.  
First term. 8:30-10 TWTF, A119 Mr. Chappelle

## ANIMAL HUSBANDRY

- \*121. **Types and Market Classes of Cattle and Sheep.** 2 sem. hrs. 3 lecture hrs. 9 lab. hrs.  
First term. 7-8:30 MF, P102; Lab. 2-5 MWF, Arena Mr. Mowery
- \*122. **Types and Market Classes of Hogs, Horses, and Mules.** 2 sem. hrs. 3 lecture hrs. 9 lab. hrs.  
First term. 7-8:30 MF, P102; Lab. 2-5 MWF Arena Mr. Mowery
231. **Breeds of Livestock.** 3 sem. hrs. 9 lecture hrs.  
Second term. 10-11:30 M-S, P102 Mr. Fine
322. **Farm Meats.** 2 sem. hrs. 18 lab. hrs.  
First term. 2-5 M-S, M. L. Mr. Harbaugh
331. **Animal Nutrition and Principles of Feeding.** 3 sem. hrs. 6 lecture hrs. 9 lab. hrs.  
Second term. 8:30-10 TWTF, A123; Lab. 1-5:30 TT, A123 Mr. Stangel
412. **Showyard Judging and Practices.** 1 sem. hr. 3 lecture hrs. 9 lab. hrs.  
First term (Last 3 wks.) 7-8:30 WS, P102; Lab. 1-5:30 TT, Arena Mr. Mowery

\* One of these courses will be offered, depending on demand.



- \*\*422. Animal Breeding.** 2 sem. hrs. 6 lecture hrs.  
Second term. 8:30-10 MTTS, P102 Mr. Fine
- 424. Beef Production.** 2 sem. hrs. 6 lecture hrs.  
Second term. 7-8:30 TWTF, P102 Mr. Stangel
- \*\*\*426. Sheep and Wool Production.** 2 sem. hrs. 6 lecture hrs.  
First term. 10-11:30 TWTF, A121 Mr. Mowery
- \*\*\*427. Swine Production.** 2 sem. hrs. 6 lecture hrs.  
First term 10-11:30 TWTF, A121 Mr. Mowery
- \*\*428. Dairy Cattle Production.** 2 sem. hrs. 6 lecture hrs.  
Second term. 8:30-10 MTTS, P102 Mr. Fine
- 533. Thesis.** 3 sem. hrs. 9 lecture hrs.  
First term. To be arranged Mr. Stangel
- 534. Thesis.** 3 sem. hrs. 9 lecture hrs.  
Second term. To be arranged Mr. Stangel

#### Veterinary Science

- 333. General Veterinary Science.** 3 sem. hrs. 9 lecture hrs.  
First term. 10-11:30 M-S, P102 Mr. Harbaugh

#### DAIRY MANUFACTURES

- 131. Principles of Dairying.** 3 sem. hrs. 6 lecture hrs. 9 lab. hrs.  
First term. 10-11:30 TWTF, A123; Lab. 1-5:30 TT, D. M 106 Mr. Harmon
- 222. The Dairy Industries.** 2 sem. hrs. 6 lecture hrs.  
First term. 7-8:30 TWTF, A121 Mr. Renner
- 323. Market Grades and Classification of Dairy Products.** 2 sem hrs. 3 lecture hrs. 9 lab. hrs.  
Second term. 10-11:30 TT, A107; Lab. 1-5:30 MF, D. M. 108 Mr. Renner
- 333. Domestic Dairying.** 3 sem. hrs. 6 lecture hrs. 9 lab. hrs.  
Second term. 8:30-10 MWFS, A107; Lab. 1-5:30 TT, D. M. 108 Mr. Renner
- 512. Advanced Dairy Products Quality Control.** 1 sem. hr. 6 lecture hrs.  
First term. (Last 3 wks.) 8:30-10 MTTF, A121 Mr. Renner

#### PLANT INDUSTRY

##### Agronomy

- 131. The Fundamentals of Crop Production.** 3 sem. hrs. 6 lecture hrs. 9 lab. hrs.  
Second term. 7-8:30 TWTF, A109; Lab. 2-5 MWF, A112 Mr. Young
- 221. Soils.** 2 sem. hrs. 6 lecture hrs.  
Second term. 11:30-1 MWTF, A109 Mr. Young
- 332. Grain Crops.** 3 sem. hrs. 6 lecture hrs. 9 lab. hrs.  
First term. 8:30-10 MTTF, A109; Lab. 2-5 MWF, A112 Mr. Leidigh
- 434. Soil Erosion and Conservation.** 3 sem. hrs. 12 lecture hrs. 18 lab. hrs.  
First term (First three weeks). Hrs. to be arranged Mr. Young
- \*511. Grain Judging.** 1 sem. hr. 18 lab. hrs.  
First term. (Last 3 wks.) 1:00-5:30 MWFS, A107 Mr. Young
- \*512. Grain Judging.** 1 sem. hr. 18 lab. hrs.  
First term. (Last 3 wks.) 1:00-5:30 MWFS, A107 Mr. Young

##### Horticulture

- 131. Plant Propagation.** 3 sem. hrs. 6 lecture hrs. 9 lab. hrs.  
First term. 8:30-10 MTTF, A123; Lab. 2-5 MWF, A110 Mr. Yocum
- 322. Landscape Appreciation.** 2 sem. hrs. 6 lecture hrs.  
Second term. 10-11:30 MWFS, A109 Mr. Howell
- 341. Principles of Genetics.** 4 sem. hrs. 9 lecture hrs. 9 lab. hrs.  
First term. 7-8:30 M-S, A109; Lab. 1-5:30 TT, A109 Mr. Yocum

\* One of these courses will be offered depending on the demand.

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**Agricultural Engineering**

321. **Farm Shop.** 2 sem. hrs. 3 lecture hrs. 9 lab. hrs.  
First term. Hrs. to be arranged. Mr. Clay
322. **Farm Shop.** 2 sem. hrs. 3 lecture hrs. 9 lab. hrs.  
First term. Hrs. to be arranged Mr. Clay

**Plant Industry**

321. **Apiculture.** 2 sem. hrs. 3 lecture hrs. 9 lab. hrs.  
Second term. 7-8:30 TT, Bee Lab.; Lab. 1-5:30 WS, Bee Lab  
Mr. Howell
331. **Plant Insects and Diseases and Their Control.** 3 sem. hrs. 9 lecture hrs.  
Second term. 11:30-1 M-S, A123 Mr. Howell
514. **Graduate Seminar.** 1 sem. hr. 3 lecture hrs.  
First term. 10-11:30 TT, A107 Mr. Young
533. **Plant Industry Thesis.** 3 sem. hrs. 9 lecture hrs.  
Second term. Hrs. to be arranged. Mr. Young

**DIVISION OF ENGINEERING****ARCHITECTURE AND ALLIED ARTS**

121. **Freehand Drawing.** 2 sem. hrs. 18 lab. hrs.  
First term. Hrs. to be arranged Miss Houghton  
Second term. Hrs. to be arranged Mr. Lockard
122. **Freehand Drawing.** 2 sem. hrs. 18 lab. hrs.  
First term. Hrs. to be arranged Miss Houghton  
Second term. Hrs. to be arranged Mr. Lockard
123. **Elements of Composition.** 2 sem. hrs. 18 lab. hrs.  
First term. 8:30-11:30 M-S, E203 Miss Houghton  
Second term. Hrs. to be arranged Mr. Lockard
124. **Elements of Composition.** 2 sem. hrs. 18 lab. hrs.  
First term. Hrs. to be arranged Miss Houghton  
Second term. Hrs. to be arranged Mr. Lockard
125. **Shades and Shadows.** 2 sem. hrs. 18 lab. hrs.  
Second term. Hrs. to be arranged Mr. Lockard
133. **Commercial Lettering.** 3 sem. hrs. 27 lab. hrs.  
First term. Hrs. to be arranged Miss Houghton  
Second term. Hrs. to be arranged Mr. Lockard
2216. **Pencil Rendering and Sketching.** 2 sem. hrs. 18 lab. hrs. Prerequisite:  
Arch. 121-2 or 123-4.  
First term. Hours to be arranged Mr. Kleinschmidt  
Second term. Hours to be arranged Mr. Lockard
2217. **Pen and Ink Rendering.** 2 sem. hrs. 18 lab. hrs. Prerequisite: Arch. 2216.  
First term. Hrs. to be arranged Mr. Kleinschmidt  
Second term. Hrs. to be arranged Mr. Lockard
328. **Poster Design and Lettering for Public School Teachers.** 2 sem. hrs.  
18 lab. hrs. Prerequisite: Junior standing.  
First term. Hrs. to be arranged Miss Houghton  
Second term. Hrs. to be arranged Mr. Lockard
329. **Poster Design and Lettering for Public School Teachers.** 2 sem. hrs. 18  
lab. hrs. Prerequisite: Arch. 328.  
First term. Hrs. to be arranged Miss Houghton  
Second term. Hrs. to be arranged Mr. Lockard
3216. **Clay Modeling.** 2 sem. hrs. 18 lab. hrs. Prerequisite: Arch. 121-2.  
First term. 1 to 5 M-F, E1-2 Mr. Williams

- 3217. Clay Modeling.** 2 sem. hrs. 18 lab. hrs. Prerequisite: Arch 3216.  
First term. 1 to 5 M-F, E1-2 Mr. Williams
- 335. History of Art.** 3 sem. hrs. 9 lecture hrs. Prerequisite: Junior standing.  
First term. 7-8:30 M-S, E208 Mr. Kleinschmidt  
Second term. Hrs. to be arranged Mr. Lockard
- 336. History of Art.** 3 sem. hrs. 9 lecture hrs. Prerequisite: Junior standing.  
First term. 8:30 to 10 M-S, E208 Mr. Kleinschmidt  
Second term. Hrs. to be arranged Mr. Lockard
- 337. Public School Art.** 3 sem. hrs. 3 lecture hrs. 18 lab. hrs. Prerequisite:  
Arch. 123-4; or Applied Arts 131-2; or Junior standing.  
First term. Hrs. to be arranged Mr. Williams
- 338. Public School Art.** 3 sem. hrs. 3 lecture hrs. 18 lab. hrs. Prerequisite:  
Arch. 337.  
First term. Hrs. to be arranged Mr. Williams
- 426. Oil Painting or Advanced Water Color.** 2 sem. hrs. 18 lab. hrs. Pre-  
requisite: Evidence of ability.  
First term. Hrs. to be arranged. Mr. Kleinschmidt  
Second term. Hrs. to be arranged Mr. Lockard
- 427. Oil Painting or Advanced Water Color.** 2 sem. hrs. 18 lab. hrs. Pre-  
requisite: Arch. 426.  
First term. Hrs. to be arranged Mr. Kleinschmidt  
Second term. Hrs. to be arranged Mr. Lockard
- 439. Methods of Teaching Art Integrated for the Elementary School and  
the High School.** 3 sem. hrs. 3 lecture hrs. 18 lab. hrs. Prerequisite:  
Arch. 335-6, 337-8, Applied Arts 334, or senior standing.  
First term. Lecture hrs. to be arranged; Lab. 8:30 to 11:30 M-S, E209  
Mr. Williams
- 4310. Methods of Teaching Art Integrated for the Elementary School and  
the High School.** 3 sem. hrs. 3 lecture hrs. 18 lab. hrs. Prerequisite:  
Arch. 439.  
First term. Lecture hrs. to be arranged; Lab. 8:30 to 11:30 M-S, E209  
Mr. Williams

## CIVIL ENGINEERING

- 231. Plane Surveying.** 3 sem. hrs. 6 lecture and 9 lab. hrs. Prerequisite:  
Math. 131.  
Second term. 7-8 M-S; 1-5:30 TT, E109 Mr. Decker
- 331. Applied Mechanics—Statics.** 3 sem. hrs. 9 lecture hrs. Prerequisite:  
Math. 251 or Math. 335.  
First term. 7-8:30 M-S, E109 Mr. Decker
- 332. Applied Mechanics—Kinematics and Kinetics.** 3 sem. hrs. 9 lecture  
hrs. Prerequisite: C. E. 331.  
First term. 8:30-10 M-S, E109 Mr. Murdough
- 333. Applied Mechanics—Strength of Materials.** 3 sem. hrs. 9 lecture hrs.  
Prerequisite: C. E. 331.  
Second term. 8:30-10 M-S, E109 Mr. Adams
- 420. Hydraulics.** 2 sem. hrs. 6 lecture hrs. Prerequisite: C. E. 331.  
Second term. 11:30-12:30 M-S, E109 Mr. McRee
- 435. Traffic Safety Education.** 3 sem. hrs. 7 ½ lecture hrs. and 2 lab. hrs.  
Prerequisite: State driver's license and Senior standing. May be counted  
as Education. (Education 4310).  
First term. 10-11:30 Tu-S; Lab. to be arranged, E109 Mr. McRee  
Second term. 10-11:30 Tu-S; Lab. to be arranged, E109 Mr. McRee

## ELECTRICAL ENGINEERING

- \*\*230. Principles of Electrical Engineering.** 3 sem. hrs. 9 lecture hrs. Pre-requisite: Phys. 231, Math. 251.  
Second term. 11:30-1 M-S, E152 Mr. Helwig
- \*233. Elements of Radio.** 3 sem. hrs. 6 lecture and 9 lab. hrs. Prerequisite: College entrance. A first course in Radio, open to any college student interested in studying the fundamentals and practice of radio.  
First term. 11:30-1 M-S, E152 Mr. Gray
- \*\*330. Principles of Electrical Engineering.** 3 sem. hrs. 9 lecture hrs. Pre-requisite: Phys. 231, Math. 251. Not open to majors in Electrical Engineering.  
Second term. 11:30-1 M-S, E152 Mr. Helwig
- \*331. Principles of Electrical Engineering.** 3 sem. hrs. 9 lecture hrs. Pre-requisite: E. E. 230 or E. E. 330.  
First term. 11:30-1 M-S, E152 Mr. Gray
- \*\*332. Principles of Electrical Engineering.** 3 sem. hrs. 9 lecture hrs. Pre-requisite: E. E. 331.  
Second term. 11:30-1 M-S, E152 Mr. Helwig
- \*335. Wiring and Illumination.** 3 sem. hrs. 9 lecture hrs. Prerequisite: Math. 132, six semester hours of physics. Standard methods of wiring circuits; the general theory and modern methods of illumination.  
First term. 11:30-1 M-S, E152 Mr. Gray
- 412. Electrical Engineering Laboratory.** 1 sem. hr. 9 lab. hrs. Prerequisite: E. E. 426 or E. E. 438, or registration in E. E. 438  
First term. 2-5 MWF, E156 Mr. Gray
- 413. Electrical Engineering Laboratory.** A continuation of E. E. 412. 1 sem. hr. 9 lab. hrs. Prerequisite: E. E. 427 or E. E. 439, or registration in E. E. 439.  
Second term. 2-5 MWF, E156 Mr. Helwig
- 438. Elements of Electrical Engineering.** 3 sem. hrs. 9 lecture hrs. Prerequisite: Phys. 231, Math. 251  
First term. 10-11:30 M-S, E152 Mr. Gray
- 439. Elements of Electrical Engineering.** 3 sem. hrs. 9 lecture hrs. Prerequisite: E. E. 426 or E. E. 438.  
Second term. 10-11:30 M-S, E152 Mr. Helwig

## INDUSTRIAL ENGINEERING AND ENGINEERING DRAWING

- 111. Engineering Drawing.** 1 sem. hr. 9 lab. hrs. Prerequisite: Two (2) semester hours credit in Engineering Drawing 132.  
First term. Hours to be arranged. Mrs. Atkinson
- 132. Engineering Drawing.** 3 sem. hrs. 3 lecture and 18 lab. hrs.  
First term. Hours to be arranged Mr. St.Clair  
Second term. Hours to be arranged Mr. Perryman
- 133. Engineering Drawing.** 3 sem. hrs. 3 lecture and 18 lab. hrs.  
First term. Hours to be arranged Mrs. Atkinson  
Second term. Hours to be arranged Mr. Perryman
- 221. Machine Drawing.** 2 sem. hrs. 18 lab. hrs. Prerequisite: Engr. Dwg. 133 or equivalent.  
First term. Hours to be arranged Mr. St.Clair  
Second term. Hours to be arranged Mr. Perryman
- 222. Descriptive Geometry.** 2 sem. hrs. 3 lecture and 9 lab. hrs. Prerequisite: Engr. Dwg. 132 or equivalent.  
First term. Hours to be arranged Mrs. Atkinson  
Second term. Hours to be arranged Mr. Perryman
- 223. Agricultural Drawing.** 2 sem. hrs. 18 lab. hrs.  
First term. Hours to be arranged Mr. St.Clair

\* One of these courses will be offered depending on demand. First term.

\*\*One of these courses will be offered depending on demand. Second term.

**Industrial Education**

332. **Teaching of Safety.** 3 sem. hrs. 9 lecture hrs. Prerequisite: Junior standing or consent of department head.  
First term. 11:30-1 M-S, E254 Mr. St.Clair

**MECHANICAL ENGINEERING**

221. **Engineering Problems.** 2 sem. hrs. 3 lecture and 6 lab. hrs. Prerequisite: Phys. 134, Math. 122, 131.  
First term. 2-5 MWF, E250 Mr. Godeke
241. **Mechanism.** 4 sem. hrs. 6 lecture and 18 lab. hrs. Prerequisite: Engr. Dwg. 133, M. E. 221.  
Second term. 9-10 M-S; 2-5 M-F, E250 Mr. Kipp
311. **Pattern Shop.** 1 sem. hr. 9 lab. hrs. Prerequisite: Engr. Dwg. 133.  
First term. To be arranged. Shop Mr. Hardgrave
312. **Foundry Practice.** 1 sem. hr. 9 lab. hrs. Prerequisite: Registration in M. E. 311.  
First term. To be arranged. Shop Mr. Hardgrave
313. **Machine Shop.** 1 sem. hr. 9 lab. hrs. Prerequisite: Engr. Dwg. 133.  
First term. To be arranged. Shop Mr. Hardgrave
314. **Machine Shop.** 1 sem. hr. 9 lab. hrs. Prerequisite: M. E. 313.  
First term. To be arranged. Shop Mr. Hardgrave
315. **Heat Treating of Steel.** 1 sem. hr. 9 lab. hrs. Prerequisite: Chem. 220, M. E. 337 recommended.  
First term. To be arranged. Shop Mr. Hardgrave
316. **Welding Practice.** 1 sem. hr. 9 lab. hrs.  
First term. To be arranged. Shop Mr. Hardgrave
330. **Thermodynamics.** 3 sem hrs. 9 lecture hrs. Prerequisite: Phys. 134, Math. 251.  
First term. 10-11:30 M-S, E251 Mr. Godeke
331. **Thermodynamics.** Continuation of M. E. 330. 3 sem. hrs. 9 lecture hrs.  
Second term. 10-11:30 M-S, E251 Mr. Kipp
333. **Kinematics of Machinery.** 3 sem. hrs. 9 lecture hrs. Prerequisite: Engr. Dwg. 133, M. E. 221, C. E. 332.  
Second term. 11:30-1 M-S, E252 Mr. Kipp
334. **Elementary Thermodynamics.** 3 sem. hrs. 9 lecture hrs. Prerequisite: Phys. 134, Math. 251.  
First term. 7-8:30 M-S, E251 Mr. Godeke
335. **Heat Engines.** 3 sem. hrs. 9 lecture hrs. Prerequisite: M. E. 334.  
Second term. 7-8:30 M-S, E251 Mr. Kipp
341. **Steam Power Plant Engineering.** 4 sem. hrs. 12 lecture hrs. Prerequisite: Registration in M. E. 330.  
First term. To be arranged Mr. Godeke

**TEXTILE ENGINEERING**

231. **Textile Fibers and Fabrics.** 3 sem. hrs. 6 lecture and 9 laboratory hrs. Fiber study, yarns, fabric design, and weaving. Fabrics, selection, and maintenance. Selection and proper use of textile material. Open to all students.  
First term. 7-8 M-S; 1:30-6 TT, T210 Mr. Stanley
234. **Cotton Classing and Marketing.** 3 sem. hrs. 5 lecture and 12 laboratory hrs. The grading, stapling, and marketing of cotton from the producer to the spinner.  
First term. 9-10 Tu-S; 1:30-5:30 MWF, T210 Mr. Stanley

236. **Textile Production.** 3 sem. hrs. 9 laboratory hrs. Prerequisite: T. E. 234 or sophomore standing in Textile Engineering. A laboratory course in textile production to enable the student to become thoroughly familiar with actual plant operation insofar as possible in the allotted time. This course covers work in carding, spinning, warp preparation, weaving, and dyeing.  
First term. To be arranged Mr. Probasco
237. **Textile Production.** 3 sem. hrs. 9 laboratory hrs. Prerequisite: T. E. 234 or sophomore standing in Textile Engineering. A continuation of 236.  
Second term. To be arranged Mr. Probasco

## DIVISION OF HOME ECONOMICS

## DEPARTMENT OF APPLIED ARTS

331. **Interior Decoration.** 3 sem. hrs. 6 lecture and 9 lab. hrs. Prerequisite: A. Arts 131 and junior or senior standing.  
First term. 8:30-10 MW, H106; Lab. 8:30-11:30 TThFS, H106  
Miss Poindexter
332. **Metal and Jewelry.** 3 sem. hrs. 3 lecture and 18 lab. hrs. Prerequisite: A. Arts 132 or art courses satisfactory to the instructor; junior, senior or graduate standing.  
First term. 3 lecture hrs. to be arranged. Lab. 2-5 M-F, H106  
Miss Poindexter
334. **Leather, Chip Carving, Book Binding.** 3 sem. hrs. Prerequisite: A. Arts 131 and 132 or art courses satisfactory to the instructor; junior, senior or graduate standing.  
First term. 3 lecture hrs. to be arranged. Lab. 2-5 M-F, H106  
Miss Poindexter

## CHILD DEVELOPMENT AND FAMILY RELATIONS

## Child Development

431. **Child Development.** 3 sem. hrs. 6 lecture and 9 lab. hrs. Prerequisite: Psy. 230 or Psy. 231. The Nursery School will be used as laboratory.  
First term. 7:30-8:30 M-S, Annex E; 9 lab. hrs. arranged, N. S.  
Miss Callan

## Family Relations

433. **Family Relations.** 3 sem. hrs. Prerequisite: Senior standing.  
Second term. 11:30-12:30 M-S, Annex G  
Miss Callan

## CLOTHING AND TEXTILES

132. **Principles of Dressmaking.** 3 sem. hrs. 3 lecture and 18 lab. hrs.  
First term. 7-8:30 MW, H205; Lab. 7-10 TuS, H205; Lab. 2-5 MWF; 3 hrs. to be arranged, H205  
Miss Allred
232. **Dressmaking.** 3 sem. hrs. 3 lecture and 18 lab. hrs. Prerequisite: A. Arts 231; Cloth. 131, 132.  
First term. 10-11:30 TT, An. E; Lab. 8:30-11:30 MWFS; Lab. 2-5 TT, Annex E. 4 hrs. to be arranged  
Miss Looney
321. **Children's Clothing.** 2 sem. hrs. 3 lecture and 9 lab. hrs. Prerequisite: Cloth 131, 132, 333, 232.  
First term. 8:30-10 TT, Annex E; Lab. 2-5 MWF, Annex E  
Miss Looney
322. **Weaving Crafts.** 2 sem. hrs. 18 lab. hrs. to be arranged.  
Second term. August 5 to August 23. Annex E  
Mrs. Hill
333. **Pattern Designing.** 3 sem. hrs. 3 lecture and 18 lab. hrs. Prerequisite: Cloth. 131, 132; A. Arts 231 or parallel.  
First term. 11:30-12:30 TT, H205; Lab. 8:30-11:30 MWF, H205, Lab. 2-5 TT. 3 hrs. to be arranged  
Miss Allred
334. **Family Clothing.** 3 sem. hrs. Prerequisite: Advanced standing and clothing courses satisfactory to instructor.  
Second term. 11:30-1 M-S, Annex E  
Mrs. Buster

- 431. Textile Economics.** 3 sem. hrs. 6 lecture and 9 lab. hrs. Prerequisite: Cloth. 232 or 333; Eco. 231 or 235. Consumer education applied to problems in clothing and textiles.  
Second term. 7-8:30 TTFS, Annex E; Lab. 2-5 MWF, Annex E  
Mrs. Buster
- 531. Advanced Garment Fitting.** 3 sem. hrs. 18 lab. hrs. Prerequisite: Cloth. 333. Open to graduate students with experience in teaching clothing. Advanced study of pattern making and alteration. Three garments constructed through the second and third fittings, to develop technique, principles, and high standards for fitting. Attention to methods of fitting one's self, restyling old garments, altering ready-to-wear, correcting figure difficulties commonly met in the classroom, and fitting for style. Consideration of classroom methods of handling these problems. Dressmaking considered wherever related to fitting difficulties.  
Second term. 10-11:30 MW, Annex B; Lab. 10-1 TThFS, Annex B  
Miss Erwin

## FOODS AND NUTRITION

- 131. Elementary Food Preparation and Serving.** 3 sem. hrs. 6 lecture and 9 lab. hrs.  
First term. 11:30-1 TWTh, An. G; Lab. 10-1 MF, H210; Lab. 2-5 TT, H210  
Miss McCrery
- 132. Elementary Food Preparation and Serving.** 3 sem. hrs. 6 lecture and 9 lab. hrs. Prerequisite: Foods 131.  
Second term. 11:30-1 TWThF, H102; Lab. 10-1 MTh, H210; Lab. 2-5 WF, H210  
Miss Wolf
- 232. Meal Planning and Table Service.** 3 sem. hrs. 3 lecture and 18 lab. hrs. Prerequisite: Foods 132.  
Second term. To be arranged
- 332. Food Purchasing.** 3 sem. hrs. 3 lecture and 9 lab. hrs. Prerequisite: Foods 232; Nutrition 334.  
First term. 7-8:30 MWFS, Annex G; Lab. 2-5 TT, H108  
Miss Twyford
- 335. Food Preservation.** 3 sem. hrs. 12 lecture and 18 lab. hrs. Prerequisite: Junior or senior standing.  
Second term. July 17 to August 3. 10-11:30 M-S, H102; Lab. 2-6 M-F, H210  
Miss Wines
- 433. Advanced Food Preparation and Serving.** 3 sem. hrs. 3 lecture and 18 lab. hrs. Prerequisite: Foods 232, 332, Nutrition 334; and senior or graduate standing; also open to juniors upon recommendation of head of department. Experience in preparation of unusual types of foods and meals for special occasions. Designed to develop a more cosmopolitan attitude toward food. Opportunity is given for practice in preparing and serving groups with ordinary home and laboratory equipment.  
First term. 11:30-1 MW, Annex G; Lab. 10-1 TTFS, 2-5 W; 3 hrs arranged, H108  
Miss Twyford

## Nutrition

- 334. Dietetics.** 3 sem. hrs. 6 lecture and 9 lab. hrs. Prerequisite: Foods 131-2 and Chem. 131-2. Prerequisite or parallel: Zoology 235-6.  
Second term. 11:30-1 M-F, H102; Lab. 10-1 S, H108; Lab. 2-5 TT, H108  
Miss Weeks
- 432. Nutrition.** 3 sem. hrs. 6 lecture and 9 lab. hrs. Prerequisite: Nutrition 334; Chemistry 341 or parallel.  
Second term. 8:30-10 M-S, H102; Lab. 2-5 TT, Annex K  
Miss Wolf
- 531. Investigations in Foods and Nutrition.** 3 sem. hrs. Prerequisite: Nutrition 432, and graduate standing. Training in laboratory methods of investigation in foods and nutrition. Special problems in the field of experimental cookery; energy metabolism studies, involving the use of the respiration apparatus; animal feeding experiments; dietary studies.  
First term. 8:30-10 T-S, H102  
Miss McCrery



## INSTITUTIONAL MANAGEMENT

435. **Organization and Administration.** 3 sem. hrs. Prerequisite: Foods 232 and Institutional Management 432. A study of organization and administrative problems such as time study, employer-employee relationships, budget making, and other factors leading to the establishment of standards for effective management of institutions.  
First term. To be arranged Miss Craddock

## HOME ECONOMICS EDUCATION

331. **Methods in Vocational Home Economics.** 3 sem. hrs. Prerequisite: Junior standing in home economics; prerequisite or parallel: Education 234.  
First term. 7-8:30 M-S, H102 Miss Johnson  
Second term. 7-8:30 M-S, H102 Miss Clewell
431. **Methods of Teaching Home Economics.** 3 sem. hrs. Prerequisite: H. E. Ed. 331 and Senior standing in home economics.  
Second term. 10-11:30 M-F, H102 Miss Clewell
432. **Problems in Teaching Clothing.** 3 sem. hrs. Prerequisite: H. E. Ed. 431; Cloth. 232, 321, 333, 431; senior standing.  
Second term. 7-8:30 M-S, Annex B; 2-5 TT, Annex B Miss Erwin
436. **Problems.** 3 sem. hrs. Prerequisite: Senior or junior standing, H. E. Ed. 431 and H. E. Ed. 441. Study and discussion of problems in the field of special interest to the individual student and class. The content will vary with the needs and interests of the group.  
Second term. July 17 to August 3. 8:30-10 T-S, H102; 3-4:30 M-F, H102 Miss Mobley
531. **Improvement in Technique in Home Economics Teaching.** 3 sem. hrs. Prerequisite: graduate standing and recent experience in teaching home economics in high school.  
Second term. August 5 to August 23. 8:30-10 T-S, H102; 3-4:30 M-F, H102 Miss Wolf
532. **The Development of the Homemaking Program.** 3 sem. hrs. Prerequisite: Graduate standing.  
First term. 11:30-1 T-S, H102 Miss Johnson

## HOME MANAGEMENT

331. **Household Management.** 3 sem. hrs. 6 lecture and 9 lab. hrs. Prerequisite: 12 hours in home economics.  
Second term. 8:30-10 TTFS, Annex K; Lab. 2-5 MWF, Annex K Miss Winkelhake
432. **Residence in Home Management House.** 3 sem. hrs. Prerequisite: Home Mgt. 331; Foods 232; Nutr. 334 or parallel.  
First term. To be arranged Miss Winkelhake  
Second term. To be arranged Miss Winkelhake  
(Registration limited; permission must be secured in advance)
433. **Housing and Household Equipment.** 3 sem. hrs. 6 lecture and 9 lab. hrs. Prerequisite: Home Mgt. 331 and senior or graduate standing. A study of housing conditions as they affect health, social life and financial status of the family; community organizations promoting better living. Selection, operation and care of various household appliances.  
First term. 8:30-10 T-S, Annex K; Lab. 2-5 MTuTh, Annex K Miss Winkelhake

## DIVISION OF ARTS AND SCIENCES

## BIOLOGY

## Bacteriology

231. **Bacteriology.** 3 sem. hrs. 6 lecture hrs. and 9 lab. hrs. Intended primarily for students of Agriculture and of Home Economics, in their sophomore or junior year.  
Second term. 8:30-9:30 M-S, L25; Lab. 2-5 MWF or 2-5 TTS, C208 Mr. Hefley

- 331-2. General Bacteriology.** 6 sem. hrs. 12 lecture hrs. 18 lab. hrs. Prerequisite: Twelve semester hours in Botany, Zoology, Chemistry, Geology, or Physics; prerequisite or parallel: 6 sem. hrs. in Chemistry.  
Second term. 7-8, 11-12 T-S, L26; Lab. 8-11 T-S, C208 Mr. Sealey

### Biology

- 131-132. Natural History of Plant and Animals.** 6 sem. hrs. 12 lecture hrs. 18 lab. hrs. The natural history of the major groups of plants and animals with emphasis on a general knowledge of the more common forms. The ecological point of view is stressed.  
A field trip of five days will be taken into the mountains of northern New Mexico June 24-28, at a cost not exceeding \$15.00; not compulsory, but highly recommended.

First term. 7-8, 11-12 M-S, C101; Lab. 8-11 M-S, C217 Mr. Studhalter and Mr. Parker

- 331. Heredity and Evolution.** 3 sem. hrs. 9 lecture hrs.

First term. 11:30-1 Tu-S, L27

Mr. Parker

- 332. Teaching of Biology.** 3 sem. hrs. 9 lecture hrs.

First term. 8:30-10 Tu-S, C101

Mr. Studhalter

### Botany

- 131-2. General Botany.** 6 sem. hrs. 12 lecture hrs. 18 lab. hrs.

Second term. 7-8, 11-12 M-S, L25; Lab. 8-11 M-S, C210

Mr. Reed

### Zoology

- 235-6. The Human Body.** 6 sem. hrs. 12 lecture hrs. 18 lab. hrs. Prerequisite: Sophomore standing.

Second term. 7:30-8:30, 11:30-12:30 M-S, C101; Lab. 8:30-11:30 M-S, C212 and C217 Miss League

### CHEMISTRY

- 131. General Chemistry.** 3 sem. hrs. 7½ lecture hrs. 9 lab. hrs.

First term. 10-11:30 M-S, C-F

Mr. Craig

Lab. 2-5 TT, C-A

Mr. Galbraith

- 132. General Chemistry.** 3 sem. hrs. 7½ lecture hrs. 9 lab. hrs.

A continuation of Chem. 131.

Second term. 10-11:30 M-S, C-F; Lab. 2-5 TT, C-A

Mr. Schneider

- 220. Qualitative Analysis.** 2 sem. hrs. 3 lecture hrs. 9 lab. hrs. Prerequisite: Chem. 131-2.

First term. 11:30-12:30 TTS, C-F; Lab. 2-5 MWF, C-E

Mr. Galbraith

- 242. Inorganic Chemistry.** 4 sem. hrs. 9 lecture hrs. 9 lab. hrs. Prerequisite: Chem. 220.

Second term. 10-11:30 M-S, C101; Lab. 2-5 MWF, C-N

Mr. Slagle

- 331. Quantitative Analysis.** 3 sem. hrs. 27 lab. hrs. Prerequisite: Chem. 131-2; Chem. 220 and Chem. 242, though the latter two may be taken in parallel.

First term. 7-8:30 T-S, C-O; Lab. 2-6 M-F, C108

Mr. Craig

- 332. Quantitative Analysis.** 3 sem. hrs. 27 lab. hrs. A continuation of Chem. 331. Seniors or graduates other than Chemistry majors, with B average may take Chem. 332 without having had Chem. 331.

Second term. 7-8:30 T-S, C-O; Lab. 2-6 M-F, C108

Mrs. Marshall

- 341. Organic Chemistry.** 4 sem. hrs. 9 lecture hrs. 9 lab. hrs. Prerequisite: Chem. 131-2. For students in the Divisions of Agriculture and Home Economics.

Second term. Lecture 7-8:30 M-S, C-F; Lab. 2-5 MWF, C109

Mr. Slagle

Mr. Schneider

- 343. Organic Chemistry.** 4 sem. hrs. 9 lecture hrs. 9 lab. hrs. Prerequisite: Chem. 131-2 and 220.

First term. 8:30-10 M-S, C-F; Lab. 2-5 MWF, C103

Mr. Goodwin

- 344. Organic Chemistry.** 4 sem. hrs. 9 lecture hrs. 9 lab. hrs. A continuation of Chem. 343.

Second term. 8:30-10 M-S, C-F; Lab. 2-5 MWF, C103

Mr. Goodwin

- 411-2. **Chemistry Seminar.** 2 sem. hrs. Prerequisite: Senior standing.  
First term. Hrs. to be arranged Mr. Goodwin
430. **Technical Analysis.** 3 sem. hrs. 30 lab. hrs. Prerequisite: Consent of the instructor and Chem 331-2.  
First term. Hours to be arranged Mr. Craig
434. **Organic Preparations.** 3 sem. hrs. 30 lab. hrs. Prerequisite: Consent of the instructor and Chem. 343-4.  
Second term. Hrs. to be arranged Mr. Goodwin

## ECONOMICS AND BUSINESS ADMINISTRATION

## Economics

231. **Principles of Economics.** 3 sem. hrs. Prerequisite: Sophomore standing.  
First term. 8:30-10 M-S, 320 Mr. Plank
232. **Principles of Economics.** 3 sem. hrs. A continuation of Eco. 231.  
Second term. 8:30-10 M-S, 320 Mr. Plank
236. **Principles of Economics.** 3 sem. hrs. Prerequisite: B. A. 131 and Eco. 131.  
First term. 11:30-1 M-S, 320 Mr. Erickson
237. **Principles of Economics.** 3 sem. hrs. A continuation of Eco. 236.  
Second term. 11:30-1 M-S, 320 Mr. Erickson
331. **Money and Banking.** 3 sem. hrs. Prerequisite: Eco. 231-2 or 236-7.  
Second term. 7-8:30 T-S, 316 Mr. Root
334. **Taxation.** 3 sem. hrs. Prerequisite: Eco. 231-2 or 236-7.  
First term. 11:30-1 T-S, 308 Mr. Plank
411. **Seminar in Economics and Business.** 1 sem. hr. Prerequisite: Senior standing in the Department.  
First term. 11:30-12:30 TTS, 322 Mr. Ellsworth  
Second term. To be arranged Mr. Ellsworth
430. **Research in Economics and Business.** 3 sem. hrs. Prerequisite: Senior standing in the Department.  
First term. 8:30-10 T-S, 308 Mr. Ellsworth
432. **Labor.** 3 sem. hrs. Prerequisite: Eco. 231-1 or Eco. 236-7.  
Second term. 8:30-10 T-S, 308 Mr. Erickson
437. **Current Economic Problems.** 3 sem. hrs. Prerequisite: Eco. 231-2 or Eco. 236-7, junior standing.  
First term. 10-11:30 T-S, 308 Mr. Root
439. **Public Control of Business.** 3 sem. hrs. Prerequisite: Eco. 231-2 or Eco. 236-7, junior standing.  
Second term. 11:30-1 T-S, 308 Mr. Plank
533. **Research in Economics and Business.** 3 sem. hrs. Prerequisite: Graduate standing.  
Second term. 10-11:30 T-S, 308 Mr. Root

## Business Administration

121. **Elementary Typewriting.** 2 sem. hrs. Prerequisite: High School Typing  
First term. Section 1. 8:30-10 T-S, 314  
1½ hrs. daily, to be arranged Mr. Harding  
First term. Section 2. 10-11:30 T-S, 314  
1½ hrs. daily, to be arranged Miss Compton
122. **Advanced Typewriting.** 2 sem. hrs. Prerequisite: B.A. 111 or 121.  
Second term. 8:30-10 T-S, 314  
1½ hrs. daily, to be arranged Miss Compton
244. **Introduction to Accounting.** 4 sem. hrs. Prerequisite: Sophomore standing.  
First term. 7-8:30 M-S, 314 Mrs. Jackson
245. **Introduction to Accounting.** 4 sem. hrs. A continuation of B.A. 244.  
Second term. 7-8:30 M-S, 314 Mr. Taylor
330. **Principles of Finance.** 3 sem. hrs. Prerequisite: Eco. 236-7, B.A. 244-5.  
First term. 7-8:30 T-S, 320 Mr. Root

332. **Principles of Marketing.** 3 sem. hrs. Prerequisite: Eco. 231-2 or 236-7.  
Second term. 7-8:30 T-S, 320 Mr. Ellsworth
334. **Business Law.** 3 sem. hrs. Prerequisite: Eco. 231-2 or 236-7.  
First term. 10-11:30 T-S, 221 Mrs. Jackson
336. **Industrial Management.** 3 sem. hrs. Prerequisite: Eco. 231-2 or 236-7.  
First term. 8:30-10 T-S, L26 Mr. Erickson
338. **Advanced Accounting.** 3 sem. hrs. Prerequisite: B.A. 244-5, Eco. 236-7.  
Second term. 10-11:30 T-S, 208 Mr. Taylor
423. **Methods of Teaching Commercial Subjects.** 2 sem. hrs. Prerequisite:  
Senior standing in the Department.  
First term. 7:30-8:30 T-S, 308 Mr. Harding

## EDUCATION AND PSYCHOLOGY

## Education

131. **Introduction to Education.** 3 sem. hrs.  
First term: 11:30-1 M-S, 214 Mr. Jackson
132. **Classroom Management and Methods.** 3 sem. hrs.  
Second term: 11:30-1 M-S, 316 Mr. Jackson
223. **School Health and Hygiene.** 2 sem. hrs.  
Second term: 7:30-8:30 M-S, 220 Mr. Jackson
225. **Materials and Methods in the Social Studies of the Elementary Grades.** 2 sem. hrs.  
First term: 7:30-8:30 M-S, L25 Mr. Jackson
226. **Basic Skills in the Elementary Grades.** 2 sem. hrs. Prerequisite: Sophomore standing.  
First term: 10-11 M-S, 320 Miss Dysart
227. **Language Arts in the Integrated Program.** 2 sem. hrs. Prerequisite: Sophomore standing.  
Second term: 10-11 M-S, 320 Miss Dysart
234. **Principles of Secondary Education.** 3 sem. hrs. Prerequisite: Sophomore standing or consent of instructor.  
First term: 10-11:30 T-S, C101 Mr. Rogers
235. **High School Methods.** 3 sem. hrs. Prerequisite: Sophomore standing or consent of instructor.  
First term: 7-8:30 T-S, 210 Mr. Irvin
325. **The Junior High School.** 2 sem. hrs. Prerequisite: Junior standing in Education.  
First term: 10-11 T-S, 216 Mr. Moore
327. **Methods in Classroom Tests.** 2 sem. hrs. Prerequisite: Junior standing in Education.  
First term: 10-11 T-S, 220 Mr. Evans
3210. **Children's Reading and Literature.** 2 sem. hrs. Prerequisite: Junior standing or consent of instructor.  
Second term: 11:30-12:30 T-S, 220 Miss Dysart
3211. **Diagnosis and Improvement of Reading.** 2 sem. hrs. Prerequisite: Junior standing in Education.  
First term: 11:30-12:30 T-S, 220 Miss Dysart
3218. **Supervision of Class Room Technique.** 2 sem. hrs. Prerequisite: Junior standing in Education.  
Second term: 10-11 T-S, 216 Miss True
3314. **The Principal and His School.** 3 sem. hrs. Prerequisite: Junior standing in Education.  
First term: 7-8:30 T-S, 220 Mr. Rogers
3315. **Visual Aids in Education.** 3 sem. hrs. Prerequisite: Junior standing in Education or consent of instructor.  
Second term: 11:30-1 T-S, 216 Mr. Cooper

- 3316. Observation and Practice.** 3 sem. hrs. Prerequisite: Junior standing in Education.  
First term (two sections) Mr. Shaver  
Sec. 1: 8:30-10 T-S, 316; Sec. 2: 11:30-1 T-S, L114
- 3317. Observation and Practice.** 3 sem. hrs. Prerequisite for primary and elementary teachers: 9 hours credit in the specific field concerned.  
First term: 10-11:30 T-S, L114 Miss True
- 420. Sociological Principles of Education.** 2 sem. hrs. Prerequisite: Junior or senior standing.  
First term: 8:30-9:30 T-S, L25 Mr. Jackson
- 423. School Publicity.** 2 sem. hrs. Prerequisite: Junior or senior standing in Education.  
First term: 8:30-9:30 T-S, 220 Mr. Garlin
- 424. The Supervision of Instruction.** 2 sem. hrs. Prerequisite: Junior standing in Education.  
First term: 7:30-8:30 T-S, L29 Mr. Moore
- 429. Unit Teaching.** 2 sem. hrs. Prerequisite: Senior standing in Education or consent of instructor.  
Second term: 8:30-9:30 T-S, 220 Mr. Jackson
- 4211. Problems of the Elementary Curriculum.** 2 sem. hrs. Prerequisite: Senior standing in Education.  
First term: 7:30-8:30 T-S, 208 Miss Dysart
- 431. Education in the United States.** 3 sem. hrs. Prerequisite: Junior or senior standing.  
First term: 10-11:30 T-S, L25 Mr. Irvin
- 530. Thesis.** 3-6 sem. hrs. Credit varies with character of work. Seminar or staff conferences in room 221, 3-4 T-F. First and second terms.  
First term: 3-4 T-F, 221  
Second term: 3-4 T-F, 221
- 533. Student Counseling.** 3 sem. hrs. Prerequisite: Ed. 326, or its equivalent, and graduate standing.  
First term: 2-4:30 TTF, 207 Mr. Gordon
- 535. Business Administration of Schools.** 3 sem. hrs. Prerequisite: Graduate standing in Education.  
First term: 7-8:30 T-S, 207 Mr. Cooper
- 538. Adult Education.** 3 sem. hrs. Prerequisite: Graduate standing in Education.  
Second term: 8:30-10 T-S, 208 Mr. Garlin

#### Psychology

- 230. Introduction To Psychology.** 3 sem. hrs. Prerequisite: Sophomore standing.  
Second term: 11:30-1 M-S, 214 Miss True
- 321. Child Psychology.** 2 sem. hrs. Prerequisite: 3 sem. hrs. in Psychology and junior standing.  
Second term: 7:30-8:30 T-S, 216 Miss Dysart
- 323. Measurements in Education.** 2 sem. hrs. Prerequisite: Junior standing in Education.  
First term: 8:30-9:30 T-S, 216 Mr. Barnett
- 325. The Psychology of Adolescence.** 2 sem. hrs. Prerequisite: 3 sem. hrs. in Psychology.  
First term: 11:30-12:30 T-S, 216 Mr. Moore
- 424. Social Psychology.** 2 sem. hrs. Prerequisite: Psychology 230.  
Second term: 7:30-8:30 T-S, L114 Miss True
- 431. Mental Tests.** 3 sem. hrs. Prerequisite: Psychology 323 or 333.  
Second term: 8:30-10 T-S, 216 Mr. Barnett
- 433. Mental Hygiene.** 3 sem. hrs. Prerequisite: Psychology 230.  
First term: 7-8:30 T-S, 216 Miss True

## ENGLISH

- 131. Freshman Composition**  
 First term. Sec. 1, 8:30-10 M-S, 210 Miss Teague  
 Sec. 2, 7-8:30 M-S, L12 Miss McGee  
 Sec. 3, 11:30-1 M-S, 210 Miss Gill  
 Second term. 10-11:30 M-S, 210 Miss Kennedy
- 132. Freshman Composition.**  
 First term. Sec. 1, 8:30-10 M-S, L33 Mr. Gunn  
 Sec. 2, 11:30-1 M-S, L28 (\*English 132 or 233) Mr. Camp  
 Second term. Sec. 1, 11:30-1 M-S, 210 Miss Horn  
 Sec. 2, 7-8:30 M-S, 208 Miss Kennedy
- 231. Introduction to Literature.**  
 First term. Sec. 1, 10-11:30 M-S, L33 Mr. Cunningham  
 Sec. 2, 8:30-10 M-S, L32 Mr. Gates  
 Second term. 8:30-10 M-S, 219 Mr. Murphy
- 232. Introduction to Literature.**  
 First term. 8:30-10 M-S, 207 Mrs. Doak  
 Second term. Sec. 1, 7-8:30 M-S, 207 Mr. Smallwood  
 Sec. 2, 8:30-10 M-S, 210 Miss Horn
- 339. American Poetry: Emily Dickinson to the Present.**  
 Second term. 10-11:30 T-S, L12 Mr. Smallwood
- 3314. Literary Aspects of the English Bible.**  
 First term. 10-11:30 T-S, 206 Miss McGee
- 3316. The Contemporary American Novel.**  
 Second term. 7-8:30 T-S, 206A Mr. Mills
- 3317. The English Novel: Lyly to Scott.**  
 First term. 10-11:30 T-S, 210 Mr. Allen
- 3319. The Essay.**  
 First term. 8:30-10 T-S, L29 Mr. Camp
- 432. Shakespeare.**  
 Second term. 8:30-10 T-S, E150 Mr. Strout
- 433. Shakespeare.**  
 First term. 7-8:30 T-S, L32 Mr. Gates
- 436. English Romanticism.**  
 Second term. 11:30-1 T-S, E150 Mr. Strout
- 439. Contemporary Drama: Ibsen to Shaw.**  
 Second term. 7-8:30 T-S, 210 Mr. Murphy
- 4310. English Poets of the Nineteenth Century.**  
 First term. 11:30-1 T-S, L113 Miss Teague
- 4311. English Poets of the Nineteenth Century.**  
 First term. 8:30-10 T-S, L114 Miss Gill
- 4313. Literary Biography.**  
 Second term. 10-11:30 T-S, 206 Mr. Mills
- 4316. The Structure of the Novel.**  
 First term. 7-8:30 T-S, L33 Mr. Cunningham
- 532. History of the English Language**  
 First term. 11:30-1 T-S, L33 Mr. Gunn

## FOREIGN LANGUAGES

## French

- 131. A Beginning Course in French. 3 sem. hrs**  
 First term. 7-8:30 M-S, 219 Mr. Alden
- 132. A Beginning Course in French. 3 sem. hrs. A continuation of French 131.**  
 Second term. 7-8:30 M-S, 221 Mr. Dryden
- 231. A Reading Course in French. 3 sem. hrs. Prerequisite: French 131-2, or two units of high school French.**  
 First term. 10-11:30 M-S, 219 Mr. Alden

\*Course offered will depend upon demand.

232. **A Reading Course in French.** 3 sem. hrs. A continuation of French 231.  
Second term. 10-11:30 M-S, 221 Mr. Dryden

## German

- 131-2. **A Beginning Course in German.** 6 sem. hrs.  
First term. 8:30-10, 11:30-1 M-S, 219 Mrs. Dingus

## Spanish

131. **A Beginning Course in Spanish.** 3 sem. hrs.  
First term. 11-30-1 M-S, 221 Mr. Henninger
132. **A Beginning Course in Spanish.** 3 sem. hrs. A Continuation of Span. 131.  
Second term. 11:30-1 M-S, 221 Mr. Strehli
231. **Grammar, Reading, Composition and Conversation.** 3 sem. hrs. Pre-requisite: Span. 131-2 or two units of high school Spanish.  
First term. 8:30-10 M-S, L28 Mr. Henninger
232. **Grammar, Reading, Composition and Conversation.** 3 sem. hrs. A continuation of Span. 231.  
Second term. 8:30-10 M-S, 221 Mr. Strehli
331. **Contemporary Literature.** 3 sem. hrs. Prerequisite: Span. 231-2 or three or four units of high school Spanish.  
First term. 7-8:30 T-S, 206A Mrs. Gates
332. **Contemporary Literature.** 3 sem. hrs. A continuation of Span. 331.  
Second term. 7-8:30 T-S, 219 Mr. Qualia
435. **Teacher's Course in Methods of Teaching Spanish.** 3 sem. hrs. Prerequisite: Spanish 331-2 and one year in education.  
First term. 8:30-10 T-S, 206A Mr. Qualia
437. **Advanced Grammar, Composition and Style.** 3 sem. hrs.  
Second term. 10-11:30 T-S, 219 Mr. Qualia
539. **Contemporary Spanish Novel.** 3 sem. hrs.  
First term. 10-11:30 T-S, 206A Mrs. Gates
5312. **Studies in Spanish Literature.** 3 sem. hrs. (This summer an intensive study of naturalism in the Spanish novel will be made.)  
First term. 7-8:30 T-S, 221 Mr. Qualia
- 5314-15. **Thesis.** 3 or 6 sem. hrs.  
Both terms to be arranged Staff

## GEOLOGY

## Geography

- 131-2. **Principles of Geography.** 6 sem. hrs.  
First term. 7-8, 11-12 M-S, C-D; 8-11 M-S, C205 Mr. Patton

## Geology

- 131-2. **General Geology.** 6 sem. hrs. 6 lecture hrs. 9 lab. hrs.  
Second term. 7-8, 11-12 M-S, C-D; 8-11 M-S, C205 Mr. Patton
363. **Field Geology.** 6 sem. hrs. Prerequisite: Geol. 131-2.  
Principles of stratigraphy, structural geology and methods of geological surveys.  
First term. In the field Mr. Sidwell  
Second term. In the field Mr. Sidwell
- \*431-2. **Advanced General Geology.** 6 sem. hrs. Prerequisite: Geol. 131-2, 231-2, and 235-6. The outstanding problems in physical and historical geology. Readings in the original literature of each subject.  
First term. Hrs. to be arranged, C-D Mr. Glock

Or

- \*433. **Structural Geology.** 3 sem. hrs. Prerequisite: Geol. 333-4 and 335-6.  
Deformation and structures of rocks with special emphasis on the relation of these economic problems.

And

\*Depending upon demand.



- \*434. Petroleum Geology.** 3 sem. hrs. Prerequisite: Geol. 433. Problems of the origin and accumulation of oil deposits; assembling and interpretation of data bearing on problems peculiar to certain fields. For students expecting to engage in the exploration and development of oil fields.

First term. Hrs. to be arranged, C-D

Mr. Glock

#### GOVERNMENT

- 131. American Government, National.** 3 sem. hrs.  
First term. Sec. 1, 10-11:30 M-S, 302  
Sec. 2, 8:30-10 M-S, 302  
Second term. 7-8:30 M-S, 302  
Mr. Reithmayer  
Mr. Davis  
Mr. Jackson
- 132. American Government, State.** 3 sem. hrs.  
First term. 7-8:30 M-S, 302  
Second term. Sec. 1, 10-11:30 M-S, 302  
Sec. 2, 8:30-10 M-S, 302  
Mr. Jackson  
Mr. Pender  
Mr. Davis
- 232. Modern Governments.** 3 sem. hrs. Prerequisite: Sophomore standing.  
First term. 7-8:30 M-S, 206  
Mr. Reithmayer
- 320. American Government, National and State.** 2 sem. hrs.  
First term. 11:30-1 MWF, 302  
Mr. Pender
- 331. Local Government.** 3 sem. hrs. Prerequisite: American Government.  
First term. 10-11:30 T-S, L12  
Mr. Jackson
- 332. Local Administration.** 3 sem. hrs. Prerequisite: American Government.  
Second term. 10-11:30 T-S, L26  
Mr. Jackson
- 333. American Political Parties, Party Development.** 3 sem. hrs. Prerequisite: American Government.  
First term. 11:30-1 T-S, 206A  
Mr. Davis
- 334. American Political Parties, Party Analysis.** 3 sem. hrs. Prerequisite: American Government.  
Second term. 11:30-1 T-S, 302  
Mr. Davis
- 437. Political Geography.** 3 sem. hrs. Prerequisite: Junior standing.  
First term. 8:30-10 T-S, 206  
Mr. Pender
- 438. World Politics.** 3 sem. hrs. Prerequisite: American Government or six semester hours in History.  
Second term. 8:30-10 T-S, 206  
Mr. Pender
- 531-2. Reading and Research.** Registration may be made at any time upon approval of the Head of the Department.  
First and Second terms. To be arranged  
Staff
- 533-4. Thesis.** Credit varies with character of work.  
First and Second terms. To be arranged  
Staff

#### HISTORY AND ANTHROPOLOGY

##### History

- 131. History of Civilization.** 3 sem. hrs.  
First term. 7-8:30 M-S, 316  
Mr. Eaves
- 132. History of Civilization.** 3 sem. hrs. A continuation of Hist. 131.  
Second term. 7-8:30 M-S, 316  
Mr. Eaves
- 231. Economic and Political History of the United States.** 3 sem. hrs.  
First term. 10-11:30 M-S, 214  
Mr. Wallace
- 232. Economic and Political History of the United States.** 3 sem. hrs.  
Second term. 10-11:30 M-S, 214  
Mr. Wallace
- 336. England Under the Tudors.** 3 sem. hrs.  
First term. 11:30-1 T-S, 316  
Mr. Kinchen
- 3315. Japan and China.** 3 sem. hrs.  
Second term. 10-11:30, T-S, 316  
Mr. Eaves
- 3317. The Contemporary European War**  
First term. 3 sem. hrs. 10-11:30 T-S, 316  
Mr. Eaves

\*Depending upon demand.

4311. **The American Civil War.** 3 sem. hrs.  
First term. 7-8:30 T-S, 214 Mr. McKay
4312. **Reconstruction.** 3 sem. hrs.  
Second term. 7-8:30 T-S, 214 Mr. McKay
4316. **The United States since the World War.** 3 sem. hrs. The Harding-Coolidge-Hoover period.  
First term. 8:30-10 T-S, 214 Mr. McKay
4317. **The United States Since the World War.** 3 sem. hrs. Roosevelt and the New Deal.  
Second term. 8:30-10 T-S, 214 Mr. McKay
530. **Seminar in History.** 3 sem. hrs. Prerequisite: Graduate Standing:  
Second term. 5-6 T-S, 214 Mr. Holden
535. **The Technique of Research.** 3 sem. hrs. Prerequisite: Graduate Standing.  
First term. 5-6 T-S, 214 Mr. Kinchen

## ANTHROPOLOGY

- 336-7. **Mexican Archaeology.** 6 sem. hrs. Prerequisite: Permission of the instructor. A field course given in Old Mexico. Lectures, readings, and visits to museums, historic places of interest, and archaeological ruins in the vicinity of Mexico City. Trips made to Cholula, Puebla, Xochimilco, Teotihuacan, Cuernavaca, Taxco, Teneyuca, and Toluca. In Mexico City the group stays at a clean, comfortable, native hotel. Cost of transportation, maintenance, and side trips approximately \$120. For further details write: Dr. W. C. Holden. First term Mr. Holden
- 531-2. **Seminar in Anthropology.** 6 sem. hrs. Prerequisite: graduate standing, and permission of the instructor. Given in Mexico City, for graduate students majoring or minoring in History or Anthropology. Itinerary and cost same as 336-7 above. First term. Mr. Holden

**Note:** For students majoring in History, Hist. 131-2 and Hist. 231-2 are prerequisites for History courses numbered 300 and above. With the permission of the Head of the Department; Hist. 133-4 may be substituted for 131-2.

## JOURNALISM

432. **High School Publications.** 3 sem. hrs.  
First term. 11:30-1 T-S, 206 Mr. Horne

## MATHEMATICS

121. **Algebra.** 2 sem. hrs. Prerequisite: One and one-half units of high school algebra.  
First term. 7:30-8:30 M-S, E253 Mr. Christianson
122. **Algebra.** 2 sem. hrs. continuation of Math. 121.  
Second term. 7:30-8:30 M-S, E253 Mr. Heineman
131. **Trigonometry.** 3 sem. hrs. Prerequisite: One unit of high school algebra and one unit of plane geometry.  
First term. 8:30-10 M-S, E201 Mr. Hazlewood
132. **Analytics.** 3 sem. hrs. Prerequisite: Math 131.  
Second term. 8:30-10 M-S, E253 Mr. Heineman
138. **Mathematics of Finance.** 3 sem. hrs. Prerequisite: Math. 137.  
First term. 11:30-1 M-S, 208 Mr. Ollman
221. **Teaching of Arithmetic.** 2 sem. hrs. Prerequisite: Math. 130 and 131 or its equivalent.  
First term. 11:30-12:30 M-S, E253 Mr. Christianson
233. **Calculus Applications.** 3 sem. hrs. Prerequisite: Math 251.  
First term. 10-11:30 M-S, E201 Mr. Hazlewood
332. **Methods of Teaching Algebra and Geometry.** 3 sem. hrs. Prerequisite: Math. 235 and 236, or its equivalent.  
First term. 8:30-10 T-S, E253 Mr. Christianson
335. **Differential Calculus.** 3 sem. hrs. Prerequisite: Math. 132 or 236.  
First term. 11:30-1 T-S, 207 Mr. Michie

336. **Integral Calculus.** 3 sem. hrs. Continuation of Math 335.  
Second term. 11:30-1 T-S, 207 Mr. Michie
431. **Advanced Calculus.** 3 sem. hrs. Prerequisite: Math. 336 or Math 251 or equivalent.  
Second term. 10-11:30 T-S, 207 Mr. Michie
432. **Differential Equations.** 3 sem. hrs. Prerequisite: Math. 336 or Math. 251 or equivalent.  
First term. 10-11:30 T-S, 207 Mr. Michie
530. **Vector Analysis.** 3 sem. hrs. Prerequisite: Math 336.  
First term. 8:30-10 T-S, 208 Mr. Ollman
537. **Functions of a Complex Variable.** 3 sem. hrs. Prerequisite: Math 431.  
Second term. 11:30-1 T-S, E253 Mr. Heineman
5311. **Thesis Course.** 3 sem. hrs. Prerequisite: Graduate standing and 30 semester hours in Mathematics. For candidates for the degree of Master of Arts.  
First term. 11:30-1 T-S, E104 Mr. Hazlewood  
Second term. 8:30-10 T-S, 204 Mr. Michie

## MUSIC

113. **Chorus.** 1 sem. hr. (1¼ hours daily)  
Second term. T-F. Hours to be arranged. 312 Mr. Blitz
121. **Solfeggio.** (Sight singing, ear training) 2 sem. hrs.  
First term. Sec. 1, 7-8 M-S, 312 Mr. Blitz  
First term. Sec. 2, 8:30-9:30 M-S, 312
122. **Solfeggio.** 2 sem. hrs.  
Second term. 8:30-9:30 T-S, 312 Mr. Blitz
123. **Harmony.** 2 sem. hrs.  
First term. 10-11 (or 11 to 12) M-S, 312 Mr. Blitz
- 125-6. **et. seq. Applied Music Demonstration Course** Mr. Blitz  
First term. 4-6 or 5-6, Monday, 312. (For credits and prerequisites see page 19).  
Second term. 4-6 or 5-6, Monday, 312 Mr. Blitz
- \*335. **Music History.** (No music prerequisites) 3 sem. hrs. Mr. Blitz  
Second term. 10-11:30 T-S (Tentative)
337. **Public School Music.** 3 sem. hrs. Mrs. Trotter  
Second term. 7-8:30 T-S, 312

## Band

- 131-2. **Band.** 6 sem. hrs. A beginning course.  
First term. Hours to be arranged Mr. Wiley
- 231-2. **Band.** 6 sem. hrs. Prerequisite: Band 131-2.  
First term. Hours to be arranged Mr. Wiley
321. **Band Conducting and Methods.** 2 sem. hrs.  
First term. Hours to be arranged Mr. Wiley
- 331-2. **Band.** 6 sem. hrs. Prerequisite: Junior standing in Band.  
First term. Hours to be arranged Mr. Wiley
- 421-2. **Band Conducting and Methods.** 4 sem. hrs. Prerequisite: Band 321.  
First term. Hours to be arranged Mr. Wiley
- 431-2. **Band.** 6 sem. hrs. prerequisite: Senior standing in Band.  
First term. Hours to be arranged Mr. Wiley
521. **Advanced Band Conducting and Methods.** 2 sem. hrs.  
First term. Hours to be arranged Mr. Wiley
522. **Applied Band Music of more Advanced Standing.** 2 sem. hrs.
523. **Symphonies.** 2 sem. hrs.  
First term. Hours to be arranged Mr. Wiley
524. **Symphonies and Symphonic Poems.** 2 sem. hrs.  
First term. Hours to be arranged Mr. Wiley

\*Or Public School Music 338 or Music 121 depending on the demand.

## PHILOSOPHY AND SOCIOLOGY

## Philosophy

330. **Introduction to Philosophy.** 3 sem. hrs.  
First term. 8:30-10 T-S, L12

Mr. Bahm

## Sociology

330. **Introduction to Sociology.** 3 sem. hrs.  
First term. 11:30-1 T-S, L12

Mr. Bahm

## PHYSICAL EDUCATION FOR MEN

113. **Physical Training.** 1 sem. hr.  
First term. 5-6 M-S, Gym

114. **Physical Training.** 1 sem. hr. Continuation of P. T. 113.  
Second term. 5-6 M-S, Gym

213. **Physical Training.** 1 sem. hr.  
First term. 5-6 M-S, Gym

214. **Physical Training.** 1 sem. hr. Continuation of P. T. 213.  
Second term. 5-6 M-S, Gym

237. **Technique of Sports.** 3 sem. hrs.  
First term. 10-11:30 M-S, E253

Mr. Cawthon

238. **Technique of Sports.** 3 sem. hrs. Continuation of P. E. 237.  
Second term. 10-11:30 M-S, E253

Mr. Cawthon

321. **Practical Instruction in Athletics.** 2 sem. hrs. Prerequisite: Junior standing.  
First term. 10-11 T-S, E204

Mr. Smith

322. **Practical Instruction in Athletics.** 2 sem. hrs. Continuation of P. E. 321.  
Second term. 10-11 T-S, E204

Mr. Huffman

431. **Theory and Practice of Coaching.** 3 sem. hrs. Prerequisite: P. E. 321-2.  
First term. 8:30-10 T-S, E204

Mr. Smith

432. **Theory and Practice of Coaching.** 3 sem. hrs. Continuation of P. E. 431.  
Second term. 8:30-10 T-S, E204

Mr. Smith

## PHYSICAL EDUCATION FOR WOMEN

210. **Clogging.** 1 sem. hr.  
Second term. 10-11:30 MTWT, Gym

212. **Tennis.** 1 sem. hr.  
First term. 7-8:30 MTWT, Courts  
Second term. 7-8:30 MTWT, Courts

217. **Folk Dancing.** 1 sem. hr.  
First term. 11:30-1, MTWT, Gym

2110. **Archery and Ping Pong.** 1 sem. hr.  
First term. 8:30-10 MTWT, Courts

2111. **Golf.** 1 sem. hr.  
Second term. 2-5 TT, Golf Course

2112. **Swimming.** 1 sem. hr.  
First term. 4-5:30 MTWT, Pool

233. **Methods in Physical Education for the Elementary School Teacher.** 3 sem. hrs.  
First term. 7-8:30 M-S, Gym

- Second term. 8:30-10 M-S, Gym

Mrs. Langford

239. **Coaching of Basketball and Other Team Sports.** 3 sem. hrs.  
First term. 8:30-10 M-S, Gym

Miss Baskin

## PHYSICAL EDUCATION COURSES OPEN TO MEN AND WOMEN

230. **Principles of Health Education.** 3 sem. hrs.  
First term. 11:30-1 M-S, L26  
Second term. 7-8:30 M-S, L11

Mrs. Huffman

337. **History of Physical Education.** 3 sem. hrs.  
Second term. 11:30-1 T-S, L12

Mrs. Langford

435. **Modern Trends in Physical Education.** 3 sem. hrs.  
First term. 10-11:30 T-S, L26 Mr. Knox
436. **Physical Examination in Physical Education.** 3 sem. hrs.  
First term. 2-3 T-S, L26 Mr. Knox

## PHYSICS

131. **Elements of College Physics.** 3 sem. hrs. 6 lecture hrs. 9 lab. hrs.  
First term 11:30-12:30 M-S, C116; Lab. 2-5 MWF, C117 Mr. George
132. **Elements of College Physics.** 3 sem. hrs. 6 lecture hrs. 9 lab. hrs. A continuation of Physics 131.  
Second term. 11:30-12:30 M-S, C116; Lab. 2-5 MWF C117 Mr. Abbitt
133. **Freshman Engineering Physics.** 3 sem. hrs. 6 lecture hrs. 9 lab. hrs.  
First term. 11:30-12:30 M-S, C116; Lab. 2-5 MWF, C117 Mr. George
134. **Freshman Engineering Physics.** 3 sem. hrs. 6 lecture hrs. 9 lab. hrs. A continuation of Physics 133.  
Second term. 11:30-12:30 M-S, C116; Lab. 2-5 MWF, C117 Mr. Abbitt
231. **Sophomore Physics.** 3 sem. hrs. 6 lecture hrs. 9 lab. hrs. Prerequisite: Physics 133-4 or its equivalent, and freshman mathematics.  
First term. 8:30-9:30 M-S, C116; Lab. 3-6 MWF, C118 Mr. George
232. **Sophomore Physics.** 3 sem. hrs. 6 lecture hrs. 9 lab. hrs. A continuation of Physics 231.  
Second term. 8:30-9:30 M-S, C116; Lab. 3-6 MWF, C118 Mr. Abbitt
435. **Introduction to Modern Physics.** 3 sem. hrs. Prerequisite: Physics 231-2 and Calculus.  
First term. Hrs. to be arranged Mr. George
436. **Introduction to Modern Physics.** 3 sem. hrs. A continuation of Physics 435.  
Second term. Hrs. to be arranged Mr. Abbitt

## SPEECH

131. **Fundamentals of Speech.** 3 sem. hrs.  
Second term. 8:30-10 M-S, 202 Miss Pendleton
231. **Technique of Dramatic Art.** 3 sem. hrs.  
First term. 8:30-10 M-S, 202 Miss Pirtle
235. **Argumentation and Debate.** 3 sem. hrs. Prerequisite: Govt. 131-2 or enrollment therein.  
Second term. 10-11:30 M-S, 202 Miss Pendleton
323. **Radio Speaking.** Cr. 2. A course in the study and practice of composition of radio talks, plays, and programs; radio and education; equipment; and general consideration of radio as a medium for mass communication. Prerequisite: 3 hours in Speech, or permission of instructor. Summer School students should consult Head of Department or instructor of the course before registering.  
First term. 11:30-12:30 T-S, 202 Mr. Watson
432. **Phonetics and Speech Correction.** 3 sem. hrs. During the summer term special emphasis will be given to work for public school teachers, and the prerequisite, Zoology 235-6, will not be required.  
First term. 10-11:30 T-S, 208 Miss Pirtle

## BIBLE

234. **Life of Christ.** 3 sem. hrs.  
First term. 7-8:30, L27 Mr. Fry
321. **Jesus the Master Teacher.** 2 sem. hrs.  
Second term. 2-4:30 Tu-F, L25 Mr. West
335. **The Poetic Section of the Old Testament.** 3 sem. hrs.  
First term. 10-11:30 T-S, L27 Mr. Fry

## DIVISION OF MILITARY SCIENCE AND TACTICS

Summer Camp: Six weeks in camp at Fort Logan, Colorado. Tactics and technique of Engineer units, with particular emphasis on the Engineer Combat Platoon and Company. Duties of Engineer noncommissioned officers and lieutenants. The application to military problems of the engineering courses pursued at the institution. Prerequisite: Three years of Senior R.O.T.C., the second and third years of which must have been with a Senior Engineer R.O.T.C. Unit. June 5 to July 16, 1940.