

UNIVERSITY OF NEVADA BULLETIN

VOL. XXI

MAY 1, 1927

No. 3

THE
UNIVERSITY OF NEVADA
CATALOGUE



1927-1928

With Record for 1926-1927

THIRTY-NINTH ANNUAL NUMBER

PUBLISHED QUARTERLY BY THE UNIVERSITY OF NEVADA
RENO, NEVADA

Entered in the Postoffice at Reno, Nevada, as second-class matter under Act of Congress, July 16, 1894. Acceptance for mailing at special rate of postage provided for in section 1103, Act of October 3, 1917, authorized April 21, 1919.



CARSON CITY, NEVADA

STATE PRINTING OFFICE : : JOE FARNSWORTH, SUPERINTENDENT

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OFFICE OF THE
BOARD OF REGENTS, UNIVERSITY OF NEVADA
RENO, NEVADA, May 1, 1927

To His Excellency, FRED B. BALZAR,
Governor of the State of Nevada.

SIR: The Regents of the University of Nevada have the honor to submit herewith the Annual Catalogue of the University, giving the records for the year 1926-1927, containing the courses of study, general information, the membership of the Faculty, and the enrollment of the students, as required by the Act of the Legislature, approved March 6, 1901.

By the Board of Regents:

WALTER E. PRATT,
CABOLYN M. BECKWITH, *Secretary.* *Chairman.*

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UNIVERSITY CALENDAR

1927		FIRST SEMESTER	
August 20-21	Saturday-Sunday	Dormitories open to receive students	
August 22-23	Monday-Tuesday	Examinations for admission	
August 22-23	Monday-Tuesday	Reexaminations to remove conditions	
August 22-23	Monday-Tuesday	Matriculation and registration	
August 24	Wednesday	Regular work begins in all departments	
September 5	Monday	Labor Day	
September 13	Tuesday	Registration closes	
October 19	Wednesday	Mid-semester reports are due	
November 24-27	Thursday-Sunday, inc.	Thanksgiving recess	
December 21	Wednesday, 5 p. m.	First semester closes	
December 24	Saturday, 12 m.	Final grades must be on file in Registrar's office	
December 21, 5 p.m.-January 8, 1928, inc.		Holiday vacation	
1928		SECOND SEMESTER	
January 9-10	Monday-Tuesday	Matriculation and registration	
January 11	Wednesday	Regular work begins in all departments	
January 31	Tuesday	Registration closes	
March 14	Wednesday	Mid-semester reports are due	
March 31	Saturday	Mackay Day	
April 6-8	Friday-Sunday, inc.	Easter recess	
May 7	Monday	Senior standings must be on file in Registrar's office	
May 11	Friday	Meeting of Honorary Board of Visitors	
May 12	Saturday, 12 m.	Second semester closes	
May 12	Saturday evening	Phi Kappa Phi address	
May 13	Sunday	Baccalaureate Sunday	
May 14	Monday	COMMENCEMENT DAY	
May 14	Monday	Alumni luncheon-following Commencement exercises	
May 15	Tuesday, 12 m.	Final grades must be on file in Registrar's office	
June 18-July-27		Summer Session	
August 27		First semester of University year 1928-1929 opens	

OFFICERS OF THE UNIVERSITY

THE BOARD OF REGENTS

HON. MRS. SOPHIE E. WILLIAMS (1929)	Hot Creek, Nye County
HON. GEORGE F. TALBOT (1931)	Reno
HON. FRANK WILLIAMS (1933)	Goodsprings
HON. WALTER E. PRATT (1935)	Reno
HON. GEORGE S. BROWN (1937)	Reno

OFFICERS OF THE BOARD

HON. WALTER E. PRATT, Chairman	Reno
MR. GEORGE H. TAYLOR, Secretary Emeritus	Reno
MISS CAROLYN M. BECKWITH, Secretary	Reno
MR. CHARLES H. GORMAN, Comptroller	Reno

COMMITTEES OF THE BOARD

Executive Committee—WALTER E. PRATT, FRANK WILLIAMS, GEORGE S. BROWN.

Property Committee—GEORGE F. TALBOT.

Instruction Committee—MRS. SOPHIE E. WILLIAMS.

Library Committee—FRANK WILLIAMS.

Student-Welfare Committee—GEORGE S. BROWN.

HONORARY BOARD OF VISITORS

HON. J. A. SANDERS, Chairman	Carson City
HON. G. L. LATTIN	Fallon, Churchill County
HON. S. W. CRANER	Las Vegas, Clark County
MRS. CLARENCE HENNINGSEN, '16	Gardnerville, Douglas County
MRS. WILLIAM SETTELMAYER, '06	Elko, Elko County
HON. THOMAS H. HAYES*	Goldfield, Esmeralda County
MRS. J. EMMETT WALSH	Goldfield, Esmeralda County
HON. C. H. RAND	Palisade, Eureka County
MRS. ORMANDE BELL, '19	Winnemucca, Humboldt County
MRS. E. O. SWACKHAMMER	Battle Mountain, Lander County
MRS. CHARLES A. THOMPSON	Pioche, Lincoln County
MRS. G. E. LEAVITT	Yerington, Lyon County
HON. SOL. M. SUMMERFIELD	Hawthorne, Mineral County
MRS. ELIZABETH BARNDT	Keystone, Nye County
HON. CHARLES L. KITZMEYER	Carson City, Ormsby County
HON. GEORGE W. LANG	Lovelock, Pershing County
HON. THOMAS SULLIVAN, SR.	Virginia City, Storey County
MRS. ELIZABETH SAXTON, '05	Sparks, Washoe County
MRS. HARVEY C. RILEY	Ely, White Pine County

*Died in office February 17, 1927.

ADMINISTRATIVE OFFICERS

- WALTER E. CLARK, Ph.D., LL.D., President.
 MAXWELL ADAMS, Ph.D., Vice-President.
 CHARLES H. GORMAN, Comptroller.
 LOUISE M. SISSA, Registrar.
 MARGARET E. MACK, A.M., Dean of Women.
 RAYMOND H. LEACH, A.B., Dean of Men.
 JOSEPH D. LAYMAN, B.L., Librarian.
 THEA C. THOMPSON, Assistant Librarian.
 HORACE P. BOARDMAN, C.E., Director of the Engineering Experiment Station.
 J. CLAUDE JONES, Ph.D., Curator of the Mackay Museum.
 EDMUND S. LEAVER, Met.E., Superintendent, United States Bureau of Mines Experiment Station.
 JOSEPH B. LYNCH, Superintendent of Buildings and Grounds.
 PHOEBE TARBETT, Matron University Hospital.
 MRS. LUCIE MAYER, Matron of Mrdzanita Hall.
 MRS. LAURA E. AKIN, Matron of Artemisia Hall.

Colleges and Schools—

- MAXWELL ADAMS, Ph.D., Dean of College of Arts and Science.
 FREDERICK H. SIBLEY, M.E., Dean of College of Engineering.
 ROBERT STEWART, Ph.D., Dean of the College of Agriculture.
 JOHN W. HALL, M.A., Dean of the School of Education and Director of the Summer Session.
 JOHN ALLEN FULTON, E.M., Director of the Mackay School of Mines.

Public Service Division—

- WALTER S. PALMER, E.M., Director of the State Analytical Laboratory.
 HENRY ALBERT, M.D., Director of the Hygienic Laboratory.
 EDWARD RECORDS, V.M.D., Director of Veterinary Control Service.
 SANFORD CROSBY DINSMORE, B.S., Commissioner, Food and Drugs Control and Weights and Measures.
 SAMUEL BRADFORD DOTEN, M.A., Director of the Agricultural Experiment Station.
 CECIL W. CREEL, B.S., Director of Agricultural Extension.

Central Clerical Staff—

- CAROLYN M. BECKWITH, Secretary to the President.
 ALICE SHAIR, Departmental Stenographer.
 MRS. LUCILE BATH, Clerk, Comptroller's Office.
 MRS. FREDA METCALF, Clerk, Comptroller's Office.

OFFICERS OF INSTRUCTION¹University Faculty²

- WALTER ERNEST CLARK, Ph.D., LL.D., President.
 A.B., Ohio Wesleyan University, 1896; A.M., Ohio Wesleyan University, 1898; Ph.D., Columbia University, 1903; LL.D., Ohio Wesleyan University, 1918; Instructor in Mathematics, Ohio Wesleyan University, 1896-1899; Tutor in Philosophy, College of the City of New York, 1901-1902; Instructor in Philosophy, *ibid.*, 1902-1906; Assistant Professor of Philosophy, *ibid.*, 1906-1907; Associate Professor and Acting Head of the Department of Political Science, *ibid.*, 1907-1910; Professor and Head of the Department of Political Science, 1910-1918; Extension Lecturer in Economics, Columbia University, 1916-1918; President, University of Nevada, September, 1917-.
- MAXWELL ADAMS, Ph.D., Professor of Chemistry, Dean of the College of Arts and Science, and Vice-President.
 A.B., Leland Stanford Junior University, 1895; A.M., *ibid.*, 1896; Ph.D., University of Chicago, 1904; Instructor in Chemistry, Leland Stanford Junior University, 1896; Teacher of Science, Chico State Normal School, 1897-1900; Vice-President of the Chico State Normal School, 1901-1906; Professor of Chemistry, University of Nevada, 1906-; Acting Dean of the College of Arts and Science, 1917-1918; Dean of the College of Arts and Science, 1918-; Vice-President of the University, 1922-.
- ³JAMES EDWARD CHURCH, JR.,⁴ Ph.D., Professor of the Classics.
 A.B., University of Michigan, 1892; Ph.D., University of Munich, 1901; Instructor in Latin and German, University of Nevada, 1892-1894; Assistant Professor of the Latin Language and Literature, 1894-1895; Associate Professor of the Latin Language and Literature, 1895-1896; Professor of the Latin Language and Literature, 1896-1918; Professor of the Classics, 1918-; on leave 1927-1928.
- JEANNE ELIZABETH WIER, B.A., LL.D., Professor of History and Political Science.
 B.D., Iowa State Teachers' College, 1893; B.A., Leland Stanford Junior University, 1901; LL.D., University of Nevada, 1924; Acting Assistant Professor of History, University of Nevada, 1899-1901; Associate Professor of History, 1901-1906; Professor of History and Political Science, 1906-1917; Professor of History, 1917-1921; Professor of History and Political Science, 1921-.
- PETER FRANSDEN, A.M., LL.D., Professor of Biology.
 A.B., University of Nevada, 1895; A.B., Harvard University, 1898; A.M., *ibid.*, 1899; LL.D., University of Nevada, 1924; Assistant Professor of Zoology and Bacteriology, University of Nevada, 1900-1902; Associate Professor of Zoology and Bacteriology, 1902-1903; Professor of Zoology and Bacteriology, 1903-1906; Professor of Biology, 1906-.
- HERBERT WYNFORD HILL, Ph.D., Professor of English.
 B.L., University of California, 1900; Ph.M., University of Chicago, 1904; Ph.D., *ibid.*, 1911; Instructor in English, Utah State Agricultural College, 1900-1903; Instructor in English, University of Texas, 1904-1906; Professor of English, University of Nevada, 1907-.
- HORACE PRENTISS BOARDMAN, C.E., Professor of Civil Engineering and Director of the Engineering Experiment Station.
 B.S., University of Wisconsin, 1894; C.E., *ibid.*, 1911; Professor of Civil Engineering, University of Nevada, 1907-; Director of the Engineering Experiment Station, 1921-.
- ¹The record of teaching experience does not include work in high schools or academies, except for members of the School of Education, and of the Public Service Divisions, nor University instruction as fellows or student assistants Summer-school and extension instruction is also excluded.
²The President, Vice-President, Deans, Librarian, Registrar, and all persons with the rank of instructor or above, who give instruction in any of the regular college departments of the University, constitute the University Faculty.
³The order beginning here is seniority. ⁴On leave 1927-1928.

LEON WILSON HARTMAN, Ph.D., Professor of Physics.

B.S., Cornell University, 1898; A.M., *ibid.*, 1899; Ph.D., University of Pennsylvania, 1903; Assistant Instructor in Physics, Cornell University, 1900-1901; Professor of Physics, Kansas Agricultural College, 1901-1902; Instructor in Physics, Cornell University, 1904-1905; Assistant Professor of Physics, University of Utah, 1905-1906; Associate Professor of Physics, 1906-1909; Professor of Physics, University of Nevada, 1909-.

CHARLES HASEMAN, Ph.D., Professor of Mathematics and Mechanics.

A.B., Indiana University, 1903; A.M., *ibid.*, 1906; Ph.D., Göttingen University, 1907; Instructor in Mathematics, Indiana University, 1907-1908; Assistant Professor of Mathematics, 1908-1909; Associate Professor of Mathematics and Mechanics, University of Nevada, 1909-1910; Professor of Mathematics and Mechanics, 1910-.

FREDERICK WESTON WILSON, M.S., Professor of Animal Husbandry.

B.S., Kansas State Agricultural College, 1905; M.S., University of Illinois, 1913; Professor of Animal Husbandry, University of Arizona, 1913-1914; Professor of Animal Husbandry, University of Nevada, 1914-.

REUBEN CYRIL THOMPSON, M.A., Professor of Philosophy.

B.A., McMinville College, 1899; B.A., Harvard University, 1901; M.A., *ibid.*, 1902; Teacher in Latin, Albion State Normal School, Idaho, 1905-1908; Instructor in Latin and Greek, University of Nevada, 1908-1909; Assistant Professor of Latin and Greek, 1909-1910; Associate Professor of Latin and Greek, 1910-1914; Professor of Latin and Greek, 1914-1915; Professor of Philosophy, 1915-.

J CLAUDE JONES, Ph.D., Professor of Geology and Mineralogy, Curator of Mackay Museum.

A.B., University of Illinois, 1902; Ph.D., University of Chicago, 1923; Assistant in Geology, University of Illinois, 1904-1905; Instructor in Geology, *ibid.*, 1905-1906; Instructor in Mineralogy and Geology, University of Nevada, 1909-1910; Assistant Professor of Geology and Mineralogy, 1910-1914; Professor of Geology and Mineralogy, University of Nevada, 1914-; Curator, Mackay Museum, 1925-.

WALTER S. PALMER, E.M., Professor of Metallurgy; Director State Analytical Laboratory.

B.S., University of Nevada, 1905; E.M., Columbia School of Mines, 1907; Instructor in Mining and Metallurgy, University of Nevada, 1910-1913; Assistant Professor of Mining and Metallurgy, 1913-1916; Professor of Metallurgy, 1916-; Director, State Analytical Laboratory, 1925-.

ALBERT ELLSWORTH HILL, A.B., Professor of English.

A.B., University of Chicago, 1899; Assistant in English, University of Chicago, 1905-1907; Associate in English, 1907-1909; Instructor in English, 1909-1913; Assistant Professor of English, University of Nevada, 1913-1914; Associate Professor of English, 1914-1916; Professor of English, 1917-.

JAMES REED YOUNG, Ph.D., Professor of Psychology.

B.L., Berea University, 1907; A.B., Leland Stanford Junior University, 1909; A.M., *ibid.*, 1910; Ph.D., University of Chicago, 1916; Teacher San Diego Normal Training School, 1910-1912; Instructor in History of Education, University of Chicago, 1913-1915; Associate Professor of Education, University of Nevada, 1915-1917; Professor of Education, 1917-1920; Professor of Psychology, 1920-.

JOHN PAUL RYAN, Colonel U.S.A., Professor of Military Science and Tactics.

U. S. Military Academy, 1888; Professor of Military Science and Tactics, University of Nevada, 1917-; Commanding Officer, S. A. T. C. October, 1918-January, 1919.

¹On leave first semester 1927-1928.

STANLEY GUSTAVUS PALMER, M.E., Professor of Electrical Engineering.

B.S., University of Nevada, 1909; M.E., Cornell University, 1910; Instructor in Electrical Engineering, University of Nevada, 1915-1916; Assistant Professor of Electrical Engineering, 1917-1918; Professor of Electrical Engineering, September, 1918-.

VERNER E. SCOTT, B.S., Professor of Dairying.

B.S., University of Wisconsin, 1911; Instructor in Dairying, University of Nevada, 1912-1915; Acting Instructor in Animal Husbandry, 1913-1914; Professor of Dairying, 1919-.

JOHN WILLIAM HALL, M.A., Professor of Education and Dean of the School of Education.

Principal Normal Practice School, 1890-1892; Principal Franklin School, Observation School of the University of Buffalo, 1895-1897; Superintendent Training Department, Colorado Teachers College, 1898-1900; B.S., Teachers College, Columbia University, 1901; M.A., Columbia University, 1902; Teacher of Psychology and History of Education, New York Training School for Teachers, 1901-1905; Professor Elementary Education, University of Cincinnati, 1905-1920; Dean of the School of Education and Professor of Education, University of Nevada, 1920-.

FREDERICK H. SIBLEY, M.E., Professor of Mechanical Engineering and Dean of the College of Engineering.

Ph.B., Brown University, 1898; M.E., Case School of Applied Science, 1905; Professor of Mechanical Engineering, University of Alabama, 1907-1912; Professor of Mechanical Engineering, University of Kansas, 1912-1920; Professor of Mechanical Engineering, University of Nevada, 1920-; Dean of the College of Engineering, 1921-.

ROBERT STEWART, Ph.D., Professor of Agronomy and Dean of the College of Agriculture.

B.S., Utah Agricultural College, 1902; Ph.D., in Agronomy, University of Illinois, 1909; Assistant Chemist, Utah Experiment Station, 1902-1905; Assistant Professor of Chemistry, Utah Agricultural College, 1905-1908; Professor of Chemistry and Station Chemist, Utah Agricultural College, 1908-1915; Professor of Soil Fertility, University of Illinois, 1915-1920; Dean of the College of Agriculture and Professor of Agronomy, University of Nevada, 1920-.

SARAH LOUISE LEWIS, M.A., Professor of Home Economics.

B.S., Columbia, 1919; M.A., Teachers College, Columbia, 1923; Instructor at Oregon Agricultural College, 1912-1915; Assistant Professor, Oregon Agricultural College, 1915-1917; Professor of Household Science and Head of Department, O. A. C., 1919-1920; Professor of Home Economics, University of Nevada, 1920-.

BENJAMIN FRANKLIN CHAPPELLE, Ph.D., Professor of Modern Languages.

A.B., Dickinson College, 1908; A.M., *ibid.*, 1911; Diplome de L'Alliance Francaise University of Poitiers, 1914; Ph.D., University of Pennsylvania, 1917; Acting Head of the German Department, Dickinson College, 1910-1911; Instructor in French, Gettysburg College, 1911-1912; Head of the Department of Romanic Languages, 1912-1916; Assistant Instructor in Romanic Languages, University of Pennsylvania, 1916-1917; Assistant Professor of Romanic Languages and Literatures, University of Nevada, 1917-1918; Assistant Professor of Romanics, University of Pennsylvania, 1918-1921; Professor of Romanic Languages, University of Nevada, 1921-1922; Professor of Modern Languages, 1922-.

SAMUEL BRADFORD DOTEN, M.A., Professor of Agricultural Research.

B.A., University of Nevada, 1898; M. A., *ibid.*, 1912; Instructor in History and Mathematics, University of Nevada, 1890-1900; Instructor in Mathematics and Entomology, 1900-1902; Assistant Professor of Mathematics and Entomology, 1902-1903; Assistant Professor of Entomology, Meteorology, and Mathematics, 1903-1905; Professor of Entomology, 1906-; Entomologist and Director, Nevada Agricultural Experiment Station, 1913-; Professor of Agricultural Research, 1922-.

- EDWARD RECORDS, V.M.D., Research Professor of Veterinary Science, V.M.D., University of Pennsylvania, 1909; General practice, 1909-1910; First Assistant, State Livestock Sanitary Board, Pennsylvania, 1910-1911; Veterinarian with H. K. Mulford Co., 1911-1914; Veterinarian, Nevada Agricultural Experiment Station, 1914-1917; Head of Department of Veterinary Science, 1918-; Research Professor of Veterinary Science, 1922-.
- CHARLES ELLIOT FLEMING, B.S.A., Research Professor of Range Management, B.S., Utah Agricultural College, 1909; B.S.A., Cornell University, 1910; Plant Ecologist, U. S. Forest Service, 1910; Grazing Examiner, U. S. Forest Service, 1911-1912; In Charge of Grazing Studies, Montana, 1913-1914; In Charge Grazing Reserves in New Mexico and Arizona, 1915-1916; Head of Department of Range Management, Nevada Agricultural Experiment Station, 1916-; Research Professor of Range Management, 1922-.
- CECIL WILLIS CREEL, B.S., Professor of Agricultural Extension, B.S., University of Nevada, 1911; Agent, Bureau of Entomology, U.S.D.A., 1911-1919; County Agent Leader, Agricultural Extension Division, University of Nevada, 1919-; Director, Agricultural Extension Division and Professor of Agricultural Extension, University of Nevada, 1921-.
- GEORGE WALLACE SEARS, Ph.D., Professor of Chemistry, B.S., Drury College, 1908; M.S., University of Illinois, 1911; Ph.D., University of Illinois, 1914; Instructor in Chemistry, University of Illinois, 1914-1917; Instructor in Chemistry, University of Nevada, 1917-1918; Associate Professor of Chemistry, 1918-1924; Professor of Chemistry, 1924-.
- FRED W. TRAINER, M.A., Professor of Education, A.B., Beloit College, 1908; M.A., University of California, 1920; Instructor in High School, Lancaster, Wisconsin, 1908-1909; Superintendent of Schools, Lancaster, Wisconsin, 1909-1914; Instructor in Education, University of Nevada, 1915-1918; Assistant Professor of Education, 1918-1920; Associate Professor of Education, 1920-1924; Professor of Education, 1924-.
- JOHN ALLEN FULTON, E.M., Professor of Mining Engineering, and Director, Mackay School of Mines, B.S., University of Nevada, 1898; E.M., Columbia University, 1900; Practical work in Africa and the United States, 1900-1924; Professor of Mining Engineering, Director Mackay School of Mines, University of Nevada, 1924-.
- PHILIP A. LEHENBAUER, Ph.D., Professor of Biology, A.B., Westminster College, 1907; A.M., Millikin University, 1909; Ph.D., University of Illinois, 1914; Instructor in Botany and Horticulture, University of Nevada, 1914-1916; Assistant Professor of Botany and Horticulture, 1916-1917; Plant Physiologist, University of Illinois, 1917-1922; Associate Professor of Biology, University of Nevada, 1922-1925; Professor of Biology, 1925-.
- FREDERICK L. BIXBY, C.E., Professor of Civil Engineering, B.S., University of California, 1905; C.E., University of Nevada, 1918; Professor of Civil and Irrigation Engineering, University of New Mexico, 1910-1912; Associate Professor of Agronomy, University of Nevada, 1919-1920; Associate Professor of Civil Engineering, 1922-1926; Professor of Civil Engineering, 1926-.
- FRANCIS CLARK MURGOTTEN, Ph.D., Professor of Modern Languages, A.B., Stanford University, 1901; A.M., *ibid.*, 1908; Ph.D., Columbia University, 1924; Professor of Hebrew, Church Divinity School of the Pacific, 1908-1918; Instructor in French, Tenth Division Schools of the British Army in Egypt, 1919; Assistant Professor of Modern Languages, University of Nevada, 1922-1924; Associate Professor of Modern Languages, 1924-1926; Professor of Modern Languages, 1926-.

- JAY ARNOLD CARPENTER, E.M., Professor of Mining, B.S., University of Nevada, 1907; E.M., Mackay School of Mines, University of Nevada, 1911; Instructor in Metallurgy, University of Nevada, 1908-1909; Assistant Professor of Metallurgy, *ibid.*, 1909-1910; Professor of Mining, South Dakota School of Mines, 1921-1922; Professor of Mining, University of Nevada, 1926-.
- THEODORE H. POST, M.A., Professor and Director of Music, Graduate New England Conservatory of Music, 1918; A.B., Washburn College, 1922; M.A. in Music, Harvard University, 1926; Assistant Professor of Voice Culture and Singing, 1919-1921, Smith College; Professor of Voice Culture and Singing, Washburn College, 1921-1924; Assistant Professor of Theory, Teacher of Singing and tenor soloist, Grinnell College, 1926-1927; Professor and Director of Music, University of Nevada, 1927-.
- Associate Professors¹*
- KATHERINE LEWERS, Associate Professor of Freehand Drawing, Instructor in Freehand Drawing, University of Nevada, 1905-1907; Assistant Professor of Freehand Drawing, 1907-1914; Associate Professor of Freehand Drawing, 1914-.
- KATHARINE RIEGELHUTH, M.A., Associate Professor of English, B.A., University of Nevada, 1897; M.A., Columbia University, 1913; Instructor in German, University of Nevada, 1905-1916; Assistant Professor of German, 1916-1917; Associate Professor of German, 1917-1922; Associate Professor of English, 1922-.
- ELSIE SAMETH, M.S., Associate Professor of Physical Education for Women, A.B., Cornell University, 1911; B.S., Columbia University, 1911; M.S., University of Wisconsin, 1922; Instructor in Physical Education for Women, University of Nevada, 1913-1915; Assistant Professor of Physical Education for Women, 1915-1918; Associate Professor, *ibid.*, 1918-.
- MARGARET ELIZABETH MACK, A.M., Associate Professor of Biology and Dean of Women, B.S., University of Nevada, 1910; A.M., Columbia University, 1913; Instructor in Biology, University of Nevada, 1913-1917; Assistant Professor of Biology, 1917-1922; Associate Professor of Biology, 1922-.
- MEREDITH RAINES MILLER, B.S., Associate Research Professor of Agricultural Chemistry, B.S., University of California, 1912; Assistant Chemist, Alameda Sugar Co., 1909-1912; Assistant Chemist, Insecticide and Fungicide Laboratory, University of California, 1912-1918; Chemist, Nevada Agricultural Experiment Station, 1918-; Associate Research Professor of Agricultural Chemistry, 1922-.
- MARY E. BUOL, B.S., Associate Professor of Agricultural Extension in the College of Agriculture, B.S., St. Lawrence University, 1912; Home Economics Teacher, Swarthmore High School, 1912-1914; Home Economics Teacher, East Orange High School, 1914-1915; Home Economics Department Head, Germantown High School, 1915-1917; Emergency Home Demonstration Agent, University of Minnesota, 1917; County Home Demonstration Agent, Minnesota, 1918-1921; Assistant Director of Agricultural Extension and Associate Professor of Agricultural Extension in the College of Agriculture, University of Nevada, 1922-.
- SILAS CALVIN FEEMSTER, A.M., Associate Professor of History and Political Science, A.B., Drury College, 1907; A.M., University of Nebraska, 1912; Professor of Latin and History, York College, 1907-1910; Assistant in History and Political Science, University of Nevada, 1913-1915; Instructor in History and Political Science, 1915-1916; Assistant Professor of History, 1917-1924; Associate Professor of History and Political Science, 1924-.

¹Order of seniority.

GILBERT BRUCE BLAIR, A.M., Associate Professor of Physics.

A.B., Tabor College, 1902; A.M., Washburn College, 1904; Assistant in Physics and Astronomy, Washburn College, 1904-1905; Assistant in Alleghany Observatory, 1905-1906; Professor of Physics, Morningside College, 1907-1909; Instructor and Assistant Professor of Physics, Oregon Agricultural College, 1912-1919; Assistant Professor of Physics, University of Nevada, 1919-1924; Associate Professor of Physics, 1924-.

WILLIAM MURIECE HOSKINS, Ph.D., Associate Professor of Chemistry.

A.B., University of California, 1919; Ph.D., University of California, 1922; Instructor in Chemistry, University of Nevada, 1923-1924; Assistant Professor of Chemistry, University of Nevada, 1924-1925; Associate Professor of Chemistry, 1925-.

CLARENCE H. KENT, B.S., Associate Professor of Mechanical Engineering.

B.S., in Electrical Engineering, Purdue University, 1915; Assistant in Mechanical Engineering, 1920; Instructor in Mechanical Engineering, *ibid.*, 1920-1924; Assistant Professor of Mechanical Engineering, 1924-1926; Associate Professor of Mechanical Engineering, 1926-.

RAYMOND H. LEACH, A.B., Associate Professor of History and Political Science, Master of Lincoln Hall, and Dean of Men.

A.B., Oberlin College, 1904; History Department Assistant and Graduate Student of Stanford University, 1922; Instructor, Department of History and Political Science, University of Nevada, 1922-1924; Master of Lincoln Hall, 1923-; Assistant Professor of History and Political Science, 1924-1926; Associate Professor of History and Political Science and Dean of Men, 1926-.

JOHN EDWARD MARTIE, B.S., Associate Professor of Physical Education for Men.

B.S., Central Missouri State Teachers College, 1923; Instructor of Physical Education for Men, University of Nevada, 1923-1924; Assistant Professor of Physical Education for Men, 1924-; Acting Head of Department, 1924-1926; Associate Professor of Physical Education for Men, 1926-.

EDWARD G. SUTHERLAND,¹ A.B., Associate Professor of Economics, Business and Sociology.

A.B., University of Utah, 1923; Instructor in Economics, Business and Sociology, University of Nevada, 1924-1925; Assistant Professor of Economics, Business and Sociology, 1925-1926; Associate Professor of Economics, Business and Sociology, 1926-.

ALFRED LESLIE HIGGINBOTHAM, M.A., Associate Professor of English.

A.B., Oberlin College, 1920; A.M., *ibid.*, 1920; Member of Staff of Cleveland Plain Dealer, July 1, 1920-; Instructor in English, University of Nevada, January, 1923-1924; Assistant Professor of English, 1924-1926; Associate Professor of English, 1926-.

THOMAS E. BUCKMAN, B.S., Associate Professor of Agricultural Extension in the College of Agriculture.

B.S., University of Nevada, 1921; County Agricultural Agent, Yerington, 1921-1922; County Agent for Washoe County, 1923-1924; Acting Assistant Director, Nevada Agricultural Extension Division, University of Nevada, 1925-1926; Associate Professor of Agricultural Extension in the College of Agriculture, and Assistant Director of Agricultural Extension, 1926-.

¹On leave 1927-1928.

Assistant Professors²

GEORGE HARDMAN, M.S., Assistant Research Professor of Irrigation.

B.S., Oregon Agricultural College, 1915; M.S., *ibid.*, 1916; Field Agent, Bureau of Good Roads and Rural Engineering, U.S.D.A., 1915-1916; Soil and Irrigation Expert, Eastern Oregon Land Co., 1916-1917; Irrigation Engineer, Goose Lake Valley Irrigation Co., 1917-1918; Assistant Agronomist, Nevada Agricultural Experiment Station, 1918-1919; Assistant in Irrigation, 1919-; Assistant Professor of Agronomy, University of Nevada, 1919-1926; Assistant Research Professor of Irrigation, 1922-.

JESSIE P. POPE, M.S., Assistant Professor of Home Economics.

B.S., University of Nebraska, 1913; M.S., Columbia, 1926; Instructor in Home Economics, University of Nevada, 1918-1920; Assistant Professor of Home Economics, University of Nevada, 1920-.

LYMAN R. VAWTER, D.V.M., Assistant Research Professor of Veterinary Science.

D.V.M., Kansas State Agricultural College, 1918; Meat Inspector, Bureau of Animal Industry, 1917-1918; Assistant in Pathology, Kansas State Agricultural College, 1918-1919; Instructor in Pathology, 1919-1920; Pathologist, Nevada Agricultural Experiment Station, 1920-; Assistant Research Professor of Veterinary Science, 1922-.

LOUISE KERR HAMMOND, B.S., Assistant Professor of Home Economics.

B.S., Oregon Agricultural College, 1921; Instructor in Home Economics, University of Nevada, 1922-1924; Assistant Professor of Home Economics, 1924-.

LUTHER NATHANIEL JOHNSON, Captain U.S.A., A.B., Assistant Professor in Military Science and Tactics.

A.B., Gustavus Adolphus College, St. Peter, Minnesota, 1915; 2d Lieutenant, 40th Infantry, U.S.A., 1917; 1st Lieutenant, 40th Infantry, U.S.A., 1918; Captain, 33d Infantry, U.S.A., 1920; Captain, 16th Infantry, U.S.A., 1922; Captain Infantry, D.O.L. as Assistant to the Professor of Military Science and Tactics, University of Nevada, 1924; Assistant Professor of Military Science and Tactics, *ibid.*, 1924-.

ELLEN LE NOIR,³ B.A., Assistant Professor of Agricultural Extension.

B.A., University of Tennessee, 1912; Teacher of English and Home Economics, North Avenue Presbyterian School, Atlanta, 1912-1914; Assistant in Home Economics, Summer School, University of Tennessee, 1913; Supervisor of Home Economics in Knoxville Grammar Schools, 1914-1915 and 1918-1919; Duval County Home Demonstration Agent, Florida, 1920-1922; District Home Demonstration Agent, North and West Florida, 1922-1923; District Extension Agent, Southeastern Nevada, 1923-1927; Assistant Professor of Agricultural Extension, University of Nevada, 1924-1927.

JOHN HYRUM WITTWER, B.S., Assistant Professor of Agricultural Extension.

B.S., Utah Agricultural College, 1917; Mintah County (Utah) Extension Agent, 1917-1921; Clark County (Nevada) Extension Agent, 1921-1923; District Extension Agent, Lincoln and Clark Counties, 1924-; Assistant Professor of Agricultural Extension, University of Nevada, 1924-.

CHARLES ROGER HICKS,³ A.M., Assistant Professor of History and Political Science.

A.B., Clark University, 1915; A.M., Stanford University, 1922; Instructor in First Commercial School, Kyoto, Japan, 1916-1918; Professor of History and Political Science, Ottawa University, 1922-1924; Instructor in History and Political Science, University of Nevada, 1924-1925; Assistant Professor of History and Political Science, 1925-.

¹Order of seniority. ²Resigned March, 1927. ³Absent on leave, 1927-1928.

EDWIN EUGENE WILLIAMS, B.S., Assistant Professor of Modern Languages.

B.S., University of Nevada, 1912; Licentiate, Instituto de Barcelona, Mexico, 1918; Associate Professor of Spanish and German, University of Redlands, 1920-1921; Instructor in Modern Languages, Oregon Agricultural College, 1919-1920; Instructor in Modern Languages, University of Nevada, 1924-1925; Assistant Professor of Modern Languages, 1925-.

ROLLIN HERBERT MCCARTHY, M.M.E., Assistant Professor of Mechanical Engineering.

A.B., Cornell, 1921; M.E., *ibid.*, 1922; M.M.E., *ibid.*, 1925; Instructor in Electrical Engineering, University of Nevada, 1922-1924; Assistant Professor of Mechanical Engineering, University of Nevada, 1925-.

EDITH M. RUEBSAM, B.A., Assistant Professor of Education.

B.A., Columbia, 1921; Demonstration Teacher of Kindergarten and Teacher Training, San Jose (California) State Teachers College, 1915-1924; Supervisor of Rural Schools, Sonoma County, California, 1924-1925; Assistant Professor of Education, University of Nevada, 1925-.

JOHN R. GOTTARDI, M.A., Assistant Professor of Modern Languages.

B.A., University of Nevada, 1921; M.A., *ibid.*, 1926; Instructor in Modern Languages, University of Nevada, 1922-1926; Assistant Professor of Modern Languages, 1926-.

SIGMUND W. LEIFSON, Ph.D., Assistant Professor of Physics.

B.S., North Dakota State Agricultural College, 1922; Teaching Fellow in Physics, University of California, 1922-1925; Ph.D., University of California, 1925; Instructor in Physics, University of Nevada, 1925-1926; Assistant Professor of Physics, 1926-.

CHARLES LOUIS SEARCY, A.M., Assistant Professor of Mathematics.

B.C.E., Purdue University, 1891; C.E., *ibid.*, 1892; A.M., University of California, 1922; Professor of Mathematics, College of Montana, 1897-1899; Assistant Professor of Civil Engineering, University of Kansas, 1899-1900; Instructor in Mathematics and Physics, Eureka (California) Junior College, 1918-1921; Instructor in Mathematics, University of Nevada, 1925-1926; Assistant Professor of Mathematics, 1926-.

Instructors¹

CHARLES LEROY BROWN, M.A., Instructor in Biology.

B.A., University of Nevada, 1912; M.A., *ibid.*, 1913; Instructor in Biology, University of Nevada, 1918-.

OSCAR THORVALD ROCKLUND, Instructor in Shop Practice and Superintendent of Shops.

Instructor in Shop Practice and Superintendent of Shops, University of Nevada, 1923-.

VINCENT P. GIANELLA,² M.S., Instructor in Metallurgy.

B.S. in E.E., Oregon Agricultural College, 1910; B.S. in E.M., Oregon School of Mines, 1911; M.S. in E.M., Mackay School of Mines, 1920; Instructor in Metallurgy, University of Nevada, 1923-1925.

LAWRENCE T. SHAW, B.S.A., Instructor in Physical Education for Men and Head Coach for Football.

B.S.A., University of Notre Dame, 1922; Assistant Coach in Major Sports, University of Nevada, 1922-1924; Head Coach in Football and Track, North Carolina State College, 1924-1925; Instructor in Physical Education for Men and Head Football Coach, University of Nevada, 1925-.

WILLIAM REGINALD BLACKLER, M.S., Instructor in Economics, Business and Sociology.

B.S., University of Utah, 1924; Teaching Fellow in Economics, University of California, 1924-1925; M.S., *ibid.*, 1925; Instructor in Economics, Business and Sociology, University of Nevada, 1925-.

¹Order of seniority.

²Absent on leave, 1925-1928.

LUETHEL AUSTIN STARK, B.A., Instructor in English.

B.A., University of Nevada, 1924; Instructor in English, University of Nevada, 1925-1926; Half-time Assistant in English, 1926-1927.

DOROTHY CRANDALL, Instructor in Music.

Teaching Fellow in Music, University of Nevada, 1924-1925; Part-time Instructor in Music, 1925-1926; Instructor in Music, 1926-1927.

JAMES W. CUNNINGHAM, B.S., Instructor in Biology.

B.S., University of Missouri, 1925; Instructor in Biology, University of Nevada, 1925-.

BERTRAND FRANKLIN COUCH, Instructor in Mine Accounting.

Instructor in Mine Accounting, University of Nevada, 1924-.

WILLIAM I. SMYTH, B.S., Instructor in Metallurgy and Analyst in State Mining Laboratory.

B.S., University of Nevada, 1914; Instructor in Metallurgy and Analyst in State Mining Laboratory, University of Nevada, 1925-.

DONALD ELLIOT ANTHONY, M.A., Instructor in Economics, Business and Sociology.

B.A., Stanford, 1922; M.A., Cornell, 1923; Instructor in Economics, Business and Sociology, University of Nevada, 1926-.

MRS. B. F. CHAPPELLE, A.M., Instructor in Psychology.

A.B., University of Pennsylvania, 1919; A.M., *ibid.*, 1922; Part time Instructor in Psychology, University of Nevada, 1925-.

ROGER W. TRUESDAIL, Ph.D., Instructor in Chemistry.

B.S., University of Redlands, 1921; M.S., University of Oregon, 1922; Ph.D., University of Washington, 1926; Head of the Departments of Chemistry and Physics, Mt. Angel College (Oregon), 1922-1923; Acting Head of the Department of Chemistry, University of Redlands, 1923-1924; Instructor in Chemistry, University of Nevada, 1926-.

EDWIN JOSEPH DUERR, A.B., Instructor in English.

A.B., University of California, 1926; Instructor in English, University of Nevada, 1926-.

VERREL ATHENE WEBER, B.A., Instructor in Physical Education for Women.

B.A., University of California, 1922; Instructor in Physical Education for Women, University of Nevada, 1926-.

OLIVER RUDOLPH GRAWE, M.S., Instructor in Geology.

A.B., Washington University, 1922; M.S., Washington University, 1924; Instructor in Geology, University of Nevada, 1926-.

OTIS JULIAN MITHOUG, B.S., Instructor in Electrical Engineering.

B.S., University of Washington, 1923; Instructor in Electrical Engineering, University of Nevada, 1926-.

MRS. RACHEL FITCH KENT, M.A., Instructor in English.

A.B., University of California, 1918; M.A., University of Nevada, 1925; Part-time Instructor in English, University of Nevada, 1926-1927.

ERASTUS A. HANSEN, B.A., Instructor in History.

B.A., University of Nevada, 1918; Instructor in History, University of Nevada, 1927-.

NORMAN T. NESS, B.A., Instructor in Economics, Business and Sociology.

B.A., Carleton College, 1925; Instructor in Economics, Business and Sociology, University of Nevada, 1927-.

LAWRENCE SEMENZA, B.A., Instructor in Economics, Business and Sociology.

B.A., University of Nevada, 1925; Instructor in Economics, Business and Sociology, University of Nevada, 1927-.

PAUL ATKINS HARWOOD, B.A., Instructor in English.

B.A., University of Nevada, 1924; Instructor in English, University of Nevada, 1927-.

MRS. A. J. SHAVER, B.A., Instructor in the Classics.

B.A., University of Nevada, 1922; Instructor in the Classics, University of Nevada, 1927-.

Lecturers, Fellows, and Assistants

BENSON DILLON BILLINGHURST, B.S., LL.B., LL.D., Lecturer in Education.

B.S., Ohio Wesleyan University, 1897; LL.B., University of Washington, 1908; LL.D., University of Nevada, 1924; Superintendent of Schools, Prescott, Arizona, 1900-1907; Superintendent of Schools, Reno, Nevada, 1908-; Lecturer in Education, University of Nevada, 1920-.

CLYDE D. SOUTER, LL.B., Lecturer in Law in the Department of Economics, Business and Sociology.

A.B., Dartmouth College, 1906; LL.B., New Jersey Law School, 1911; Instructor, New Jersey Law School, 1914-1915; Assistant Professor, *ibid.*, 1916-1918; Professor of Law, *ibid.*, 1918-1922; Lecturer in Law, University of Nevada, 1926-.

IRVIN S. DANIELSON, B.S., Fellow in Chemistry.

B.S., University of New Mexico, 1926; Fellow in Chemistry, University of Nevada, 1926-.

RUTH ADELINE TALBOY, B.S., Lecturer in Vocational Home Economics.

B.S., Iowa State College, 1924; Nevada State Supervisor of Home Economics, 1926-; Lecturer in Vocational Home Economics, University of Nevada, 1927-.

UNIVERSITY STANDING COMMITTEES

The first-named member of each Committee is its Chairman, to whom all matters of business should be referred.

Admission and Advanced Standing—

G. W. SEARS, P. A. LEHENBAUER, S. G. PALMER.

Assemblies and Lecturers—

S. B. DOTEN, F. C. MURGOTTEN, G. B. BLAIR.

Athletics—

J. E. MARTIE, MISS SAMETH, R. H. MCCARTHY.

Campus Employment—

R. H. LEACH, MISS MACK, J. B. LYNCH.

Faculty Community Chest—

C. HASEMAN, F. L. BIXBY, MRS. HAMMOND.

Graduate—

H. W. HILL, R. STEWART, J. C. JONES.

Health—

P. FRANSEN, S. C. DINSMORE, J. E. MARTIE.

High-School Relationships—

F. W. TRANER, MISS RIEGELHUTH, MISS POPE, C. H. KENT.

Library—

A. E. HILL, MISS WIER, W. S. PALMER, B. F. CHAPPELLE, J. D. LAYMAN.

Registration and Scholarship—

M. ADAMS, R. STEWART, F. H. SIBLEY, J. W. HALL, J. A. FULTON, MISS SISSA.

Schedules—

H. P. BOARDMAN, S. C. FEEMSTER, W. M. HOSKINS.

Scholarships and Prizes—

J. A. CARPENTER, C. HASEMAN, MISS LEWIS.

Student Affairs—

MISS MACK, R. H. LEACH, J. C. JONES.

Teacher Appointment—

F. W. TRANER, J. W. HALL.

Vocational Guidance—

J. R. YOUNG, A. L. HIGGINBOTHAM, J. A. CARPENTER.

Chief Marshal of Formal Assemblies—

COLONEL JOHN PAUL RYAN, U. S. A.

THE HISTORY AND DEVELOPMENT OF THE
UNIVERSITY

- 1862—*The Morrill Land Grant.* By the terms of this grant the State of Nevada received a donation of 90,000 acres of land, in 1866, "for the endowment, support and maintenance of at least one college whose leading object shall be, without excluding other scientific and classical studies and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts." The land in this State is known as the "90,000-Acre Grant," and the sales of this land have amounted to \$116,144.51, upon which the United States Government requires an annual interest of 5%.
- 1864—*Foundation.* The Constitution of the State declares that the "Legislature shall encourage, by all suitable means, the promotion of intellectual, literary, scientific, mining, mechanical, agricultural, and moral improvement," and shall provide for "the establishment of a State University which shall embrace departments for agriculture, mechanic arts and mining." A further provision in the Constitution relates to the Normal School.
- 1866—By a special Act of Congress there were seventy-two sections in the State set aside for the purposes of endowment of the universities in the State. The fund from the sale of this land now amounts to \$54,550.34.
- 1873—*Location.* The University was first located at Elko by an Act of the Legislature approved March 7, 1873. By an Act of the Legislature approved March 7, 1885, it was moved to Reno, and formally reopened March 31, 1886.
- 1887—The enrollment of the students in 1887-1888 was 50. The faculty consisted of 2 members, President Brown and Professor Hannah K. Clapp. During the first year 2 additional members were added, and by the end of the second year the faculty numbered 7.
- During the first year five departments were recognized, although not fully organized. They were the Liberal Arts, the Mining, the Normal, the Agricultural, and the Business Schools.

- 1888—The School of Mines was organized, with Robert D. Jackson, Ph.B., as Director. The Normal School was organized, with Miss Kate N. T. Tupper as the head. The Military Department was organized, with Lieutenant Arthur C. Ducat, Jr., as commandant.
- 1889—*The Hatch Act*—The Agricultural Experiment Station was organized, President Brown acting as Director. By an Act of Congress passed March 2, 1887, known as the Hatch Act, which was accepted by this State, there was established, in connection with the colleges founded upon the Congressional Act of 1862, agricultural experiment stations, "to aid in the acquiring and diffusion among the people of the United States of useful and practical information on subjects connected with agriculture, and to promote scientific investigation and experiment respecting the principles and applications of agricultural science." The Hatch Act of 1887 appropriated \$15,000 annually for this support.
- 1889—Administration of President Jones began.
- 1890—The second Morrill Act of Congress made further appropriations for endowments of institutions established under the Act of 1862. Under this endowment the University is now receiving \$25,000 per year.
- 1891—The first graduates from the School of Liberal Arts.
- 1892—The first graduates from the Schools of Mines and Agriculture.
- 1894—Administration of President Jones ended.
- Administration of President Stubbs began.
- 1895—The State Analytical Laboratory was organized under provisions of an Act of the Nevada Legislature of March 16, 1895.
- 1899—Washoe County presented to the University a farm of sixty acres, to be used in connection with the Agricultural Experiment Station. The cost of the farm was \$12,000.
- 1904—The tridecennial celebration of the establishment of the University was held.
- 1906—*The Adams Act*—Congress, under Act dated March 16, 1906, known as the Adams Act, provided for additional appropriation for the support of the Agricultural Experiment Station, limiting the money's use to necessary expenses of original research and experimental work in agriculture. This grant amounts to \$15,000 per year.

- 1907—*The Nelson Fund*—An Act of Congress of March 4, 1907, carried with it an appropriation for the further support of the universities established under the Morrill Act of 1862. The present appropriation under this fund amounts to \$25,000 per year.
- 1907—Mrs. John W. Mackay and Mr. Clarence H. Mackay began a donation to the University which founded the Mackay School of Mines, the Mackay Athletic Field, and the Mackay Training Quarters, and contributed \$25,000 toward the beautifying of the Campus. They also presented a statute in bronze by Gutzon Borglum of John W. Mackay, one of the pioneers of the Comstock.
- 1909—State Hygienic Laboratory was organized under provisions of the Act of the Nevada Legislature, approved March 25, 1909.
- 1910—Laboratory for Pure Foods and Drugs and Weights and Measures was established under provisions of Act of the Nevada Legislature of 1909, effective from January 1, 1910.
- 1911—Twenty-fifth anniversary of the establishment of the University at Reno, celebrated by Silver Jubilee and home-coming of former students and graduates.
- 1912—Mrs. John W. Mackay and Mr. Clarence H. Mackay presented to the University Board of Regents \$150,000 as an endowment for the Mackay School of Mines.
- 1914—Administration of President Stubbs closed with his death on May 27.
- 1914—By an Act of Congress known as the "Smith-Lever Act," there was established a fund for the purpose of agricultural extension. The fund, amounting to \$10,000 the first year, increased each year until it amounted in 1923 and thereafter, to \$15,699 per year.
- 1914—September 14, administration of President Hendrick began.
- 1915—State Veterinary Control Service was organized under provisions of an Act of the Nevada Legislature, approved March 11, 1915.
- 1917—University Farm of 213 acres purchased.
- 1917—May 1, administration of President Hendrick ended.
- 1917—September 1, administration of President Clark began.
- 1918—The Smith-Hughes Act passed Congress early in 1917, for the promotion of vocational education. This Act provides for cooperation with the States in the promo-

- tion of such education as agriculture, home economics, trades, and industries, and in preparation of teachers of vocational subjects. Under the Nevada State Board of Vocational Education, the University of Nevada does the Nevada vocational-teacher training in accord with this Smith-Hughes Act, being granted special federal and state funds for this purpose. This work began at the University in January, 1918.
- 1918—First training detachment of 103 soldier students from June 15 to August 13; second training detachment of 103 soldier students from August 15 to October 12; Collegiate Section A—79 soldier students from October 1 to December 21; Vocational Section B—212 soldier students from October 15 to December 21.
- 1920—The School of Education was organized.
- 1920—The Rare and Precious Metals Federal Mining Experiment Station was assigned to the University July 8, 1920, by the Federal Bureau of Mines.
- 1920—A Federal Radio Station was established on the University Campus in September, 1920. The operant station and the government wireless laboratory were both housed in the smaller of the two Barracks buildings until 1924 when this station was transferred to the Federal Aviation Field south of Reno.
- 1920—The University of Nevada was placed on the approved list of the Association of American Universities in November, 1920.
- 1921—An Engineering Experiment Station was established.
- 1924—The Semicentennial of the University was celebrated in May with a home-coming of former students and graduates. Actual University work first began in Elko in 1874.
- 1924—The Robert Lardin Fulton Lecture Foundation was established.
- 1925—Mr. Clarence H. Mackay began his additional gift of \$18,000 per year to the Mackay School of Mines.
- 1925—*The Purnell Act*—An Act of Congress passed in February, 1925, under which the income of the University's Agricultural Experiment Station was increased to \$50,000 for the year beginning July, 1925, and is due for further increase of \$10,000 per year thereafter until the annual income reaches \$90,000.

1926—Mr. William A. Clark, Jr., began the construction of a Library Building in memory of his wife, Alice McManus Clark, a native of Virginia City, Nevada.

1926—Mr. Clarence H. Mackay gave the University \$100,000 to enlarge the Mackay School of Mines Building and to perfect its equipment.

THE UNIVERSITY ORGANIZATION

- A. College of Arts and Science.
 School of Education and Nevada State Normal School.
- B. College of Engineering.
 (a) Mackay School of Mines.
 (b) School of Mechanical Engineering.
 (c) School of Electrical Engineering.
 (d) School of Civil Engineering.
 (e) Engineering Experiment Station.
- C. College of Agriculture.
 (a) School of Agriculture.
 (b) School of Home Economics.
- D. Affiliated Organizations.
 (a) Agricultural Experiment Station.
 (b) Smith-Lever Extension in Agriculture and Home Economics.
 (c) State Mining Laboratory.
 (d) State Hygienic Laboratory.
 (e) Pure Food and Drugs Control and Weights and Measures.
 (f) State Veterinary Control Service.
 (g) United States Bureau of Mines Experiment Station.
- E. Summer Session.

COLLEGES, SCHOOLS, AND PUBLIC SERVICE DEPARTMENTS

THE COLLEGE OF ARTS AND SCIENCE

The College of Arts and Science offers four-year courses leading to the degree of Bachelor of Arts. (Students who have majored in Mathematics and Science may, upon application to the faculty, receive the degree of Bachelor of Science if they prefer.)

Work in the following subjects is offered in the College of Arts and Science: Art, Biology, Business, Chemistry, Classics, Economics, Education, English, Geology, History, Mathematics, Mineralogy, Modern Languages and Literatures, Music, Philosophy, Physical Education, Physics, Political Science, Psychology, and Sociology.

SCHOOL OF EDUCATION AND STATE NORMAL SCHOOL

The training of teachers at the University of Nevada embraces the following courses and divisions:

1. The School of Education (included as a division of the College of Arts and Science, but with its own Dean and its direct affiliations with the Colleges of Agriculture and Engineering), which offers to prospective secondary-school teachers a liberal and professional course of study of four years leading to the bachelor's degree and a teacher's high-school diploma, giving title to a teacher's high-school first-grade certificate, and also a special training course for future school principals and superintendents.
2. The State Normal School, which offers to fully accredited students of college grade a two-year professional training leading to a teacher's elementary diploma giving title to a first-grade elementary certificate. Students who cannot immediately proceed after the first year to the second year of this course are granted credentials giving title to a second-grade elementary certificate.
3. The Summer Session, organized more particularly for the benefit of present and prospective teachers and conducted for six weeks in June and July, with a wide variety of liberal and professional courses which carry both university and state-certificate credit. For 1927 this Session is scheduled from June 13 to July 22, inclusive.

THE COLLEGE OF ENGINEERING

The Mackay School of Mines offers a four-year course in mining, leading to the degree of Bachelor of Science in Mining Engineering, which prepares students to become mining engineers, metallurgists, and mining geologists and a one-year graduate course leading to the degree of Master of Science in Mining. The school is provided with the equipment necessary to teach efficiently the courses in mining, metallurgy, and geology, which form the basis of a mining education. The professional degree of Engineer of Mines is conferred upon graduates who have held responsible mining positions for at least three years and who present satisfactory theses.

The Schools of Mechanical, of Electrical, and of Civil Engineering each offer four-year courses of instruction leading, respectively, to the degrees of Bachelor of Science in Mechanical, in Electrical, or in Civil Engineering. The shops are well equipped, and the laboratories offer most excellent facilities for practical work.

ENGINEERING EXPERIMENT STATION

The Engineering Experiment Station was established by the Board of Regents, November 1, 1921. It cooperates with engineering experiment stations in other institutions and conducts useful investigations along engineering lines, publishing bulletins from time to time whenever the results justify such publication.

THE COLLEGE OF AGRICULTURE

The College of Agriculture curriculum leads to the degree of Bachelor of Science in Agriculture. This is a four-year course including, in addition to the prescribed agricultural subjects, such subjects in the College of Arts and Science as are necessary to establish in the student's mind a thorough knowledge of agricultural problems.

The degree course in the School of Home Economics gives to young women of the University a comprehensive understanding of the household sciences, including both domestic science and domestic arts.

AGRICULTURAL EXPERIMENT STATION

The Agricultural Experiment Station receives its Federal support from the Hatch Fund (1887), from the Adams Fund (1906), and from the Purnell Fund (1925). These funds are restricted by law to the scientific investigation of

agricultural problems, including the problems arising from soil conditions, the duty of water, animal diseases, poisonous range plants, economical feeding of live stock, insect pests, plant diseases, and other problems of agricultural economics and practice.

AGRICULTURAL EXTENSION DIVISION

Agricultural Extension, provided for by the Federal Smith-Lever Extension Bill, is under the immediate charge of a director.

Its specific purpose is "the giving of instruction and practical demonstrations in agriculture and home economics to persons not attending or resident in said colleges in the several communities, and imparting to such persons information on said subjects, through field demonstrations, publications, and otherwise." Further information concerning the work under this division, staff, etc., is given in this catalogue.

PUBLIC SERVICE DEPARTMENTS

The Legislature of the State has placed the following four public service departments under the direction of the President and Board of Regents of the University:

STATE ANALYTICAL LABORATORY

The State Analytical Laboratory, which was organized under an Act of the Legislature approved May 16, 1895, provides a means whereby citizens of Nevada may have ores and minerals, taken from within the boundaries of the State, analyzed free of charge.

STATE HYGIENIC LABORATORY

The State Hygienic Laboratory was organized in 1909 to provide facilities for the diagnosis of infectious human diseases and to provide for the control of such diseases. The services of the laboratory are available to physicians, health officers, and health boards. The laboratory is located at the corner of Fifth and Sierra Streets, Reno.

FOOD AND DRUGS CONTROL, AND WEIGHTS AND MEASURES

The Act of the Legislature in 1909 which established the Food and Drugs Control, and Weights and Measures Departments, provides that all rules, regulations, definitions, and decisions proclaimed by the Secretary of Agriculture for the enforcement of the national law, shall be

adopted by this department in the enforcement of the state law. The Department of Weights and Measures is also charged with the enforcement of the provisions of the Nevada Fruit and Vegetable Standardization Act (1923). The laboratory is located at the corner of Fifth and Sierra Streets, Reno.

STATE VETERINARY CONTROL SERVICE

The State Veterinary Control Service was organized in 1915, to provide facilities for the diagnosis of communicable diseases of domesticated animals, for research into the nature, cause, and methods of controlling the same, including the preparation and distribution of special sera and vaccines which cannot be purchased on the open market.

ADMINISTRATION

GOVERNMENT

The control of the University is vested by law in a Board of Regents consisting of five members elected by the people. By an Act of the Legislature, approved March 24, 1917, the tenure of office for University Regents is ten years. At each biennial election one Regent is to be elected.

The administration of the University is vested by the Board of Regents in the President of the University, the University Faculty, the Faculties of the several Colleges and the Deans and Directors of the Colleges and Schools and of the Public Service Division.

THE PRESIDENT

The President of the University is the executive head of the University. It is his duty to secure efficiency in all the departments and orderly and economical administration and healthful development in all the affairs of the University. He is *ex officio* a member of each committee.

THE VICE-PRESIDENT

In the absence of the President or in case of his inability to act, the Vice-President shall perform his functions.

DEANS

The Dean is the administrative officer of his college or school. Any matters in which the faculty of the college can legislate are within the administrative functions of the Dean. He is directly responsible to the President of the University.

DEAN OF WOMEN

The academic and social welfare of the women students is under the particular supervision of a Dean of Women. It is especially desirable that young women who are away from their home influences should have some one to whom they may look for advice in matters affecting their welfare as women and as students. The Dean of Women has jurisdiction over all social matters in which women students are concerned. For women students whose homes are out of the city and who are not accommodated in Manzanita Hall, the Dean of Women has a list of suitable homes accommodating women exclusively and in which a parlor is provided for the reception of visitors. Women students are required to report

to the Dean of Women in order that they may register their addresses. The Dean of Women invites correspondence with parents and guardians, and gladly cooperates with them regarding the welfare of students.

DEAN OF MEN

The Dean of Men is the special adviser of men students particularly with reference to their general campus activities and their social affairs. For men students whose homes are outside the Reno district and who are not living in Lincoln Hall, the Dean of Men has a list of homes offering suitable accommodations for men. He invites correspondence with parents or guardians of men students of the University and will gladly cooperate with them in matters making for the welfare of such students.

THE TREASURER AND COMPTROLLER

The Treasurer and Comptroller is authorized to receive all moneys arising from gifts or bounties in any form to the University or for its benefit; all fees from students or others; proceeds from all sales of farm products or any articles of personal property of whatever nature or kind; fees for services rendered in any manner, and funds from any sources whatsoever other than in cases by law required to be paid to the State Treasurer. He keeps the accounts of the moneys in his custody in such separate funds as are necessary for proper and systematic accounting.

THE UNIVERSITY FACULTY

The President, Vice-President, Deans, Librarian, Registrar, and all persons who give instruction, with the rank of instructor or above, in any of the regular college departments of the University, constitute the University Faculty.¹ Subject always to the approval of the President and the Board of Regents, the University Faculty has legislative jurisdiction in all matters of government, discipline and educational policy not delegated by it to the separate faculties, and has the right of review of all actions of the several colleges which relate to the educational welfare of the University as a whole.

The Standing Committees, through which much of the

¹Exceptions to the above rule:

1. Any member of the faculty not teaching during any given college year shall not have the privilege of voting in faculty meetings during that year.
2. New appointees shall not have the right to vote until one year after appointment, except those who may be appointed to the rank of full professor, or as the head or acting head of a department.

business of the University Faculty is done, are listed on page 21 of this Catalogue.

MEETINGS

The University Faculty meets at the call of the President.

COLLEGE FACULTIES

The faculty of each college directs the educational and internal life of the college, makes rules and regulations peculiar to that college; formulates the course of study, the entrance and graduation requirements, which, when approved by the University Faculty, the President and the Board of Regents, become the statutes in force in that college. It shall not have the authority to take away from a student any university privilege nor shall it trench upon the executive duties of the Deans. All matters which may require the action of the University Faculty shall be presented to that body by the Dean. The faculty of each college shall organize and carry out its functions as it deems wise. The Dean shall be chairman of the faculty and ex officio a member of all committees. The action of each faculty is subject to the approval of the President and of the Board of Regents. A copy of the minutes must be filed with the President immediately following each meeting.

DEPARTMENTS

The department is the educational unit in the University. The head of the department is responsible directly to the President for the efficiency and educational effectiveness of the department. For general administrative work the head of the department is in that college in which his major work appears.

The heads of departments make all department reports, prepare estimates for the expenses of their departments, and are responsible for the distribution and expenditure of the funds assigned to them.

ADVANTAGES AND EQUIPMENT

Reno, the seat of the University, is a substantially built and steadily growing city, numbering in 1927 sixteen thousand inhabitants. It is located in the valley of the beautiful Truckee River at the junction of three railroads, the Southern Pacific, a transcontinental line, the Virginia and Truckee Railway, a short line with Reno and Virginia City as terminals, and the Western Pacific Railway, another trunk-line between the East and the West.

The scenery is magnificent. The University Campus, at the northern edge of the city of Reno, is a low plateau. On the west are the Sierra Nevada Mountains, pine clad, crowned with snow the year round, and towering to majestic heights, the white summit of Mount Rose, queen of the range, being over two miles above sea-level. On the east are the lower gray-brown Virginia Mountains, endlessly restful with their subdued lights and their velvet shadows. These two ranges unite in low hills to the north, while to the south a green and fertile valley crossed by the silver thread of the Truckee, stretches to the horizon mountains.

The air is clear and invigorating. The temperature is equable. Over three hundred days of the year the sun shines from a usually cloudless sky of wondrous blue. The nights are always cool and refreshing. There are few, if any, more healthful places in America.

The grade-and high-school system of the city has deserved repute throughout the Pacific States. The Reno Young Men's and Young Women's Christian Associations have well-equipped quarters which are centers of athletic and social activities. University students are welcomed by all of the churches of Reno.

BUILDINGS AND GROUNDS

The University Campus has an area of sixty acres and is beautifully located on an eminence overlooking the city. The academic buildings center upon a turfed Quadrangle; broad walks and drives traverse the grounds. The natural advantages of the site respond well to landscape embellishment, and much has been done toward beautifying the grounds.

The following brief descriptions will give some idea of the principal buildings and the purposes for which they are used:

AGRICULTURAL BUILDING—The Agricultural Building is a three-story structure of brick, with stone facings and trimmings, situated directly east of the University lake. The first floor includes the administration offices, two classrooms, a large lecture room, the millinery laboratory, the library, and the museum. The second floor is devoted to the School of Home Economics and the Department of Biology, and includes the sewing laboratory, the cooking laboratory, the model kitchen and dining room, and the biological laboratories. The basement includes laboratories for agricultural engineering, dairying, animal husbandry, farm crops, soil physics, biology, and Experiment Station Chemistry. (1918*)

BARRACKS—The Barracks Building is a two-story frame building located directly north of Lincoln Hall. It is used by the Military Department and for special exhibition purposes. This building was erected in September, 1918, for the use of the Vocational Section of the Students' Army Training Corps. (1918)

CHEMISTRY BUILDING—The Chemistry Building is a two-story gray stone building standing on the west side of the Quadrangle. On the first floor are found the elementary inorganic and qualitative laboratories, a balance room, stock room, and physical chemical laboratory, which is equipped for work. The quantitative laboratory occupies the south half of the second floor. The second floor also contains a lecture room, offices, a department library, and small laboratories. The basement is divided into two compartments, one being used as a furnace and combustion room, the other as an acid room. All the laboratories are heated from the central heating plant. (1902)

DAIRY BUILDING—This is a two-story brick and stone building situated on the east side of the Campus directly east of the Mechanical Building. The entire second floor and a room of the basement houses the Department of Agricultural Extension. The basement is used by the Department of Building and Grounds. (1913)

DINING HALL—The University Dining Hall is a one-story brick building on the west side of the Campus. It is a

*Figures given in parentheses at the end of paragraphs describing the buildings state the years in which the respective buildings were completed.

conveniently equipped Dining Hall for the accommodation of two hundred and fifty students. (1905)

EDUCATION BUILDING—A two-story brick building, with stone facings and columns, situated north of the Agricultural Building. The first floor has an auditorium seating 350, with stage and dressing room, the offices and three classrooms of the School of Education. The second floor is occupied by the Departments of Art, Economics, Business and Sociology, Philosophy and Psychology, and has the music room and other classrooms of Education. (1920)

ELECTRICAL BUILDING—The Electrical Building, situated on the east side of the campus, is a two-story brick building, 50x110 feet. The first floor contains classrooms and the mechanical, electrical and strength of materials laboratories. These laboratories are equipped with modern machinery for giving instruction in the several courses, such standard tests as are usually required being represented. The second floor contains the computing room, drafting room and the classrooms of the civil engineering department. (1912)

GREENHOUSE—A working greenhouse is on the east side of the Campus. It is used by the Departments of Botany and Horticulture, and also for the study of plant industry. (1909)

GYMNASIUM—The Gymnasium is a brick building one hundred and fifty feet long and sixty feet wide. The assembly hall is one hundred feet by sixty feet, and is used for general University purposes. The building is devoted to the use of the men's and women's classes in Physical Education, and is equipped with shower baths, dressing rooms, and offices of the Physical Education departments. (1897; extension, 1922)

HATCH STATION—Hatch Station, as enlarged in 1926, is occupied by the Agricultural Experiment Station. The first floor is occupied by the Department of Farm Development and the Station Library. The second floor is occupied by the offices of the Station Director and by the Departments of Entomology and Range Management. The herbarium occupies the third floor. (1891; moved to Virginia Street, basement added, 1926)

HEATING PLANT—A central heating plant supplies most of the buildings on the Campus. It consists of four large boilers, pumps, engines, motors, etc., and is operated in con-

nection with the mechanical engineering laboratories. (1908; enlarged, 1926)

HOSPITAL—The University Hospital is situated between the Gymnasium and Lincoln Hall. This is a one-story building and contains six rooms and a basement. There are four wards—two upon the west for men and two upon the east for women. There is a convenient kitchen where the food for the patients is prepared. A matron is in charge of the hospital. The physician engaged by the Hospital Association of the University has daily office hours in this building. (1902)

LIBRARY—The Library Building is situated on the west side of the Quadrangle; it is constructed of brick and stone in conformity with the architecture of the other buildings. (1913)

LIBRARY—CLARK MEMORIAL—A two story and basement fireproof brick building, the gift of Mr. William A. Clark, Jr., in memory of his wife, Alice McManus Clark. The main stackroom and a receiving room are in the basement. The first floor has workrooms and seminar rooms. The second floor includes the main reading room, a periodical room, a display room and the main offices of the librarian and staff. (1927)

LINCOLN HALL—Lincoln Hall, the men's dormitory, is a modern three-story brick building, built after the plan of such halls in use in the larger eastern colleges. It affords a comfortable home for ninety men. (1896)

MACKAY SCHOOL OF MINES—The Mackay School of Mines, the gift of Mrs. John W. Mackay and Mr. Clarence H. Mackay, houses the Departments of Mining, Metallurgy, Geology, and Mineralogy. It is a dignified and spacious structure in the colonial style, occupying a space 112x118 feet and is two stories throughout with basement, except for a light well over the library in the center of the building. In the basement are storerooms, the seismograph laboratory, geology department workroom, mining laboratory, lavatory, shower and locker rooms for the students, and the ore dressing laboratory or mill.

Upon the first floor are the chemical laboratory, electric furnace laboratory, first mezzanine mill floor of the mill, assay laboratory, museum, library, classrooms and offices of the Director, metallurgy department, and mining department.

Upon the second floor are the State Analytical Laboratory, mezzanine floor of the museum, drafting room, seminar room, instruments room, office of the Department of Geology, the mineralogy laboratory, maproom, petrography laboratory, petrography grinding and polishing room, and classrooms. (1908; enlarged, 1926)

MANZANITA HALL—Manzanita Hall, the first hall of residence for women students, is a brick building electrically lighted and steam heated. It provides accommodations for about eighty-five women. There are single rooms, double rooms, and two-room suites. Some rooms have running water and all have outside exposure. There is a large sleeping porch overlooking the lake. Complete arrangements for comfortable living are provided by the presence of adequate living rooms, study, tub baths, showers, laundry facilities, etc. A covered passageway connects the hall with the Dining Hall. (1896; annex 1909)

ARTEMISIA HALL—The second residence hall for women students is a modern brick building, steam heated and electrically lighted. It is located north of and adjacent to the Dining Hall. Eighty women students and the matron can be accommodated. There are double rooms, living rooms, study, tub baths, showers, lavatories, kitchenette, laundry and other conveniences for comfortable living. (1926)

MECHANICAL BUILDING—The Mechanical Building which is on the east side of the Quadrangle adjoining the Electrical Building is of two story brick construction 80x80 feet. It contains a machine shop, forge shop, foundry and pattern shop. The machine shop is equipped with eight engine lathes, two Universal milling machines, power drill press, thirty-inch Gray planer, two whip crank shapers, benches, grinders, hack saws, and a full complement of small tools sufficient to handle a class of fifteen men at one time. The forge shop is equipped with twelve down-draft forges with anvils and necessary tools. The foundry contains a No. O Whiting cupola and a brass furnace with the usual small equipment for casting iron and brass. The pattern shop is equipped with band saw, jointer, jig saw and a complete outfit of benches, small tools and lockers sufficient for twenty students at one time. (1897)

MINES EXPERIMENTING BUILDING—This building has been erected north of the east wing of the School of Mines Building. It is a two-story and basement brick building, housing

the storage rooms, laboratories, library, and offices of the Federal Rare and Precious Metals Mining Experiment Station. (1921)

MORRILL HALL—Morrill Hall is a three-story brick building with a large basement. On the first floor are the offices of the President, the Comptroller, and the Registrar. The Departments of Mathematics and the Classics occupy the second floor. The third floor is used for overflow classes. The office of the Superintendent of Buildings and Grounds and the University Post Office are in the basement. (1886)

PHYSICS BUILDING—The Physics Building is a two-story brick building. On the first floor are the balance room, the dark rooms, the storage-battery room, the shop, the laboratories of the Physics Department, the offices of the Artemisia and the Sagebrush, and a storage room for the greenhouse. The second floor contains the Physics lecture room, with a seating capacity of eighty persons, the apparatus rooms, and the offices. (1889; annex 1905)

PRESIDENT'S HOUSE—The President's house is situated on the southeast corner of the Campus. (1900)

STEWART HALL—Stewart Hall is a three-story brick building with a basement. The basement is used as an armory and contains also the offices of the Military Department. The Departments of History and Political Science and of Modern Languages occupy the first floor. The second floor is occupied by the Department of English. (1890)

THE MACKAY FIELD AND TRAINING QUARTERS—The natural amphitheater on the Campus, which had been leased to the University for a number of years by former Regent Evans, was purchased for the University by Mr. Clarence H. Mackay and provision made for its improvement. In order to make room for other branches of athletics, such as basket-ball and tennis, the Nevada Legislature of 1909 made provision for the purchase of additional land to the south of the old field, so that now about ten acres of land is being used for athletic purposes. The improvements donated by Mr. Mackay include a Training Quarters Building, situated on the east side of the field (1909). This building has showers, baths, locker and dressing rooms, a committee room, and a lounging room. Directly opposite to this on the west bank are the bleachers and colonnade. The natural slope of the bank has been utilized so that the field closely resembles the stadium used at the ancient Olympic games. There are seventeen tiers of

concrete, with a colonnade for a covered grandstand in the rear. The seating capacity is about two thousand.

Situated between these structures is a full-sized American football field, surrounded by a quarter-mile track which has an arm extended to make provision for the 220-yard events.

THE EXPERIMENT STATION FARM—East of the University Campus lies the 60-acre farm given by citizens of Washoe County to be used for agricultural experimentation. (1899)

THE UNIVERSITY FARM—Four miles south of Reno the State purchased, in 1917, a 213-acre farm primarily for use as a stock farm. On this farm over \$25,000 worth of blooded stock is kept for animal husbandry and dairy class use and for supplying blooded animals to stockmen of the State. (1917)

LIBRARIES

GENERAL LIBRARY

The University Library contains 46,700 bound volumes and several thousand pamphlets. The books have been selected with particular reference to the needs of the several departments of study; but, besides the works needed by special departments, there are many general works and reference volumes of various kinds. The books are catalogued according to the Dewey Decimal Classification System.

The reading room is supplied with daily and weekly newspapers and with many of the best periodicals. The list includes subscriptions to about two hundred of the leading cultural, scientific, and technical magazines and journals.

During the University year the Library is open from 7:50 a. m. to 5:45 p. m. every day except Sundays and holidays. It is open Monday, Tuesday, Wednesday, and Thursday evenings, also, from 7 to 9 o'clock. During the Summer Session and vacations special hours are announced.

To the general public is extended the use of the Library under such restrictions of the time for which a book may be withdrawn as are necessary to prevent interference with the work of the students. Borrowers residing outside of Reno are asked to pay the necessary postage or expressage on the books loaned to them.

AGRICULTURAL COLLEGE LIBRARY

The Agricultural College Library contains all of the live-stock record books of the Department of Animal Husbandry and Dairying, as well as a large collection of agricultural papers, magazines and other current literature. It is

located in Room 103 Agricultural Building, and is used chiefly by members of the faculty and students in Agriculture and Home Economics. The use of this library is extended to the general public.

AGRICULTURAL EXPERIMENT STATION LIBRARY

The Agricultural Experiment Station Library, containing about twenty-eight hundred bound volumes and a large number of pamphlets is housed in Hatch Station. The volumes and pamphlets may be classified broadly as follows: Bulletins and Reports of the Experiment Stations of the various States, publications of the United States Department of Agriculture, and general works on agriculture and the related sciences. Many current agricultural periodicals are on the tables in the reading room. The library is catalogued and classified, and suited for ready reference. It is open daily, and, while intended primarily for the use of the Station Staff, it is also accessible to the public.

MINING LIBRARY

Reference books, textbooks, recent technical journals, and other works pertaining to geology, mineralogy, mining, and metallurgy are concentrated in one large study room which is conveniently located upon the ground floor of the Mackay School of Mines. The library consists of some 1,500 bound volumes, in addition to which is maintained a complete set of publications of the U. S. Geological Survey and the U. S. Bureau of Mines. Thirty current periodicals are received. This library is open at all times during the sessions.

MINING EXPERIMENT STATION LIBRARY

The library of the U. S. Bureau of Mines Station at the University consists of between 2,000 and 3,000 volumes and pamphlets. Thirty-five current periodicals are received. A complete set of the publications of the U. S. Bureau of Mines is maintained.

OTHER DEPARTMENTAL LIBRARIES

These libraries are maintained primarily for the use of students taking work in the respective departments. They cover animal husbandry, biology, chemistry, education, home economics, physics, and veterinary science.

TRAVELING LIBRARIES

The University has fifteen traveling libraries for the use of Nevadans outside of Reno. Numbers 1 and 2 have

twenty-five books each; the others have fifty books apiece. So far as practicable they are lent to schools or communities that will pay transportation charges. The "travelers" may remain three months or longer in a place. Then they return to the University Library, are checked up, and made ready to lend again. The University will continue this in a modest way until the work can be done better by others. The University requires a deposit of \$5 on each "traveler."

CITY AND STATE LIBRARIES

Besides the University libraries, members of the University have the facilities of the Reno Free Library of 25,000 volumes and of the State Library at Carson City which has over 61,000 volumes, 40,000 of which make one of the best Law Libraries in the west.

LABORATORIES

ARTS AND SCIENCE LABORATORIES

Biological—The Biological Department occupies part of the basement, and the north half of the second floor of the Agricultural Building. There are five laboratories consisting of the following: (1) The main laboratory, used for all the elementary courses, which will accommodate thirty-five students; (2) The advanced zoological laboratory; (3) The advanced botanical laboratory; (4) The plant breeding and horticultural laboratory; and (5) The anatomy laboratory. The first three are located on the second floor, and the last two are in the basement. In addition to these laboratories, there are small rooms for storage, an ice room, a dark room, a fireproof incubator room, and a small museum and exhibition room. In the basement there are arrangements for the keeping of running aquaria and supplies of living animals. In the central part of each laboratory are stationary tables provided with gas, water, and sink connections, lockers and drawers—all adapted for the setting up of apparatus in physiological and other experimental work. Tables grouped in front of the windows are arranged for microscopic work. Each individual table is provided with a microscope, locker, and combination-lock drawers for the keeping of individual supplies and apparatus. Wall cabinets, reagent cases, and lockers are used for storing general equipment and supplies. The department possesses fifty-five compound microscopes, ten of which are provided with oil immersion lenses and all the accessories needed for the most delicate and precise microscopical work. Among the larger pieces of apparatus are an

electrical incubator, a Freas electric oven, paraffin water bath, dry air and steam sterilizers, autoclave, centrifuges, and a full projection apparatus for microscopic lantern-slide and opaque demonstrations. Four complete sets of physiological apparatus will accommodate eight students in experimental animal physiology. Smaller apparatus and a greenhouse make possible a limited amount of work in plant physiology.

Chemical—The laboratory for qualitative analysis will accommodate sections of sixty students each. The sophomore laboratory will accommodate sections of thirty-six each, with locker room for three sections. The laboratory is completely fitted with water, gas, and fume closets. The quantitative analysis laboratory will accommodate twenty-four students. It is equipped with gas, water, fume closets, steam closets, steam evaporators, drying ovens, etc. In connection with this is a balance room containing twelve balances, and a special laboratory for the analysis of water and for such determinations as cannot be made in the main laboratory.

Geological and Mineralogical—The Departments of Geology and Mineralogy are provided with reference collections illustrating the minerals, rocks, and fossils, and with class collections for study and determination. Also all folios and some 2,000 topographic maps published by the U. S. Geological Survey are provided for laboratory use. The Mineralogical Laboratory is arranged, for the present, for the accommodation of single sections of forty students. There is, in addition, a laboratory fitted up for microscopic work, and equipped with petrographical microscopes and the necessary accessories. It has also a set of mineral thin sections cut in definite direction, and a collection of rock sections with many representatives of each of the chief types, together with many sections illustrating special types. A separate grinding room is provided with apparatus for making thin sections of rocks and minerals. Blowpipe and other chemical work is also provided for. A lantern with a growing collection of slides furnishes additional illustrative material for lecture work.

Physical—The work of the Physical Laboratory is fully adapted to the needs of the students of arts, science, medicine, education, or engineering. The General Laboratory contains, besides a shop, a Freshman and Sophomore laboratory for work in sound, mechanics, heat, light, magnetism, and

electricity. The equipment of these laboratories consists of modern apparatus of approved design and substantial construction, suited for accurate physical measurements. The apparatus for the more important experiments has been duplicated, so that at present individual work can be insisted upon in the laboratory. Aside from the main laboratories, there are a weighing room, containing four Becker balances mounted on piers; a dark room provided with standard photometric apparatus; and a battery room equipped with sixty lead storage batteries and fifteen Edison storage batteries. The department shop contains a motor-driven lathe, with taper attachment, change gears for cutting metric threads, and all other accessories, hand tools for wood and metal work, including metric taps and dies, a small circular and linear dividing engine, and a direct current dynamo with two armatures, furnishing current at various voltages. All of the laboratories are supplied with water, gas, and electricity.

ENGINEERING LABORATORIES

Civil Engineering—The Civil Engineering equipment includes the following items:

A 200,000-lb. capacity Riehle general testing machine, electrically operated, equipped for testing materials in tension, compression, bending and shear.

A 100,000-lb. capacity Riehle hand operated, hydraulic compression testing machine.

A 1,000-lb. capacity Fairbanks and Morse tension testing machine for cement and various other necessary cement testing equipment.

A good assortment of surveying instruments.

A large accurate suspended pantograph.

A complete set of railroad curves and other important drafting room equipment.

A computing machine of Swiss manufacture.

This equipment is in the Electrical Building, second floor, except the strength of materials testing machines and other apparatus located on the first floor of the Mechanical Building.

Electrical—The Electrical Laboratory contains equipment for making all the experiments usually included in undergraduate courses in electrical engineering. The equipment is kept up-to-date and machines of all standard types are available for study and operation. Measuring instruments

covering a wide range of indicating, graphic and integrating types and in both commercial and laboratory forms are available. Among the principal units for testing are the following:

A 15-kva. two-unit, phase-displacement, dynamometer set driven by a 25-hp. direct current motor.

A loading set consisting of one 15-kw. three-phase resistor, three 5-kva. reactors, three 2-kva. condensers, for testing the above machine.

Two identical motor generator sets consisting of 15-hp. induction motors directly coupled to 7-kw. direct current compound generators.

A laboratory type 10-kw. rotary converter with accessory apparatus consisting of three 5-kva. special testing transformers and a complete starting and regulating panel.

A motor generator set, consisting of a 25-hp. induction motor and a 3-wire type, 20-kw. direct current generator.

A 7½-kw. alternating current laboratory type generator with four interchangeable rotors and control equipment.

A 128 volt, 200 ampere hour storage battery.

A complete telephone demonstration plant with central office equipment and two subscriber sets.

A series direct current motor and a variable speed alternating current motor arranged with Prony brake equipment.

A one panel mercury arc rectifier set.

A two panel 4000-volt slate switchboard with oil circuit breaker, current and potential instrument transformers.

A seven panel slate switchboard complete with switches, meters, rheostats, automatic voltage regulator and synchronism indicator for the main laboratory machines.

A three panel slate transfer switchboard.

A small separate room in the laboratory is equipped with radio and telephone apparatus for experimental work and study in this branch of electrical engineering.

In addition to the apparatus described, there are available numerous smaller pieces of apparatus covering various types of motors, generators, transformers and controlling equipment.

Mechanical—The Mechanical Laboratory is arranged to present a series of about thirty fundamental experiments in mechanical engineering in the regular courses. In addition, equipment is available for research problems. Each of the regular test units is flexibly arranged so that complete

operating characteristics of the type represented may be secured.

In the large Laboratory are the following units:

A 80-hp. oil-fired Babcock and Wilcox boiler with injector, feed pump and hot well.

A 12x24 Corliss engine belted to an alternator provided with grid rheostats for loading.

A 10x10 high speed, piston valve, automatic cut-off Buffalo Forge Co., steam engine with Prony brake.

A 5x5 vertical slide valve Ball engine.

A 7-kw. Curtis turbo-generator with control panel.

A 6-hp. DeLaval steam turbine geared to a centrifugal pump.

A Wheeler surface condenser connected so that it may be used with any of the steam units.

For gas-engine testing there are the following:

A 30-hp. three cylinder marine gas engine.

A 6-hp. vertical gas engine.

A 10-hp. oil engine.

A 4-hp. gas engine geared to a displacement pump.

A Willys-Knight automobile engine.

A complete 12 cylinder Liberty airplane engine and other small gas engines.

A Sprague dynamometer unit for testing any high speed internal combustion engine. The last-named unit will be provided with auxiliary equipment to convert it into an automobile chassis dynamometer when desired.

In the small laboratory is complete apparatus for fan testing and air flow measurements, for solid, liquid and gaseous fuel analysis; for calorimetry, including a Parr adiabatic oxygen bomb calorimeter, and a Sargent gas calorimeter for experimental crude oil distillations and for instrument testing. Standard instruments such as pyrometers, pressure indicating and recording gages, steam calorimeters, Orsat apparatus, engine indicators, etc., are included in the equipment.

The funds and facilities of the Engineering Experiment Station are available for work on research problems.

MINING SCHOOL LABORATORIES

Assay—The Fire Assay Laboratory in the Mackay Building is equipped with five gas-fired muffle furnaces, six Thompson pulp scales for weighing assay pulps, and suitable hood for parting. Adjoining the Laboratory is a storeroom

for supplies and a grinding room for the preparation of samples. The grinding room is equipped with a Braun sample jaw crusher, Braun pulverizer, shaking screen, bucking board, and exhaust fan for removing dust.

Connected with the fireroom is the weighing room. Both chemical and button balances for assaying work are placed in this room. The equipment consists of two analytical balances and eight button balances. Different makes of balances are in use, including the Becker, Ainsworth, Keller, Oertling, and Staudinger.

Chemical—The Chemical Laboratory of the School of Mines is fully equipped with the usual desks, hoods, hot plates, and air baths. Electric air baths and drying pans are provided for overnight work. Four four-gallon slime agitators, driven by a small electric motor, are used for slime tests. A direct connected electric driven exhaust fan draws the air from the hood in this laboratory. A complete electrolytic outfit for lead, copper, and other determinations has been installed. The equipment also includes a Richlitz automatic water still, a Monroe hydraulic classifier, and a Spencer binocular microscope.

Geological and Mineralogical—The Departments of Geology and Mineralogy are provided with reference collections illustrating the minerals, rocks, and fossils, and with class collections for study and determination. Also all folios and some 2,000 topographic maps published by the U. S. Geological Survey are provided for laboratory use. The Mineralogical Laboratory is arranged, for the present, for the accommodation of single sections of forty students. There is, in addition, a laboratory fitted up for microscopic work, and equipped with petrographical microscopes and the necessary accessories. It has also a set of mineral thin sections cut in definite direction, and a collection of rock sections with many representatives of each of the chief types, together with many sections illustrating special types. A separate grinding room is provided with apparatus for making thin sections of rocks and minerals. Blowpipe and other chemical work is also provided for. A lantern with a growing collection of slides furnishes additional illustrative material for lecture work.

Metallurgical and Ore Dressing—The Metallurgical and Ore Dressing Laboratory equipment includes the following: One Krupp ball mill; one 150-lb. tube mill; one 5-jar

Abbe mill; one 2-jar Abbe grinding mill, direct connected; one 1-jar large Abbe mill; one Dorr classifier; one pair 10x12 crushing rolls; one two-compartment bucket elevator; one Wilfley concentrating table; one Deister slime concentrator; one small Pachuca agitator; four four-gallon slime agitators; one water-driven bottle agitator; one Sperry filter press; one two-compartment jig; one 4x8 Sturtevant ore crusher; one Vezin automatic sampler; one 18-inch amalgamating pan; one Callow cone classifier; one six-compartment classifier; one one-ton cyanide plant; one No. 1 Crowell air pump; one No. 3 Crowell air pump; one 1½-inch Byron-Jackson centrifugal sand pump; two redwood storage tanks with agitators; one 6-inch exhaust fan; one 8-inch exhaust fan; one concentrating testing plant consisting of ore feeder, hydraulic classifier, Wilfley table, two-compartment jig, settling tanks, Janney, Ruth & Callow flotation machines; two pyrometers; three Fairbanks-Morse platform scales.

Power for the laboratory is supplied by two induction motors, one a 15-hp. and one a 5-hp. All the machines are so arranged that they can work independently or in conjunction with one another. The following processes may be conducted on a working scale: The dry crushing and automatic sampling of an ore; the concentration of sands and slimes after crushing an ore either in stamp battery or rolls; the wet crushing, plate amalgamation, and concentration of a gold ore; the cyanide treatment of a gold or a silver ore, and the pan amalgamation of a silver ore. Fine grinding plant in enclosed circuit to prepare ores for cyanidation, concentration, flotation, or any other tests. A very representative collection of various types of ores for testing purposes, is maintained.

Metallographic—The Metallographic Laboratory is equipped with the following:

One Sauveir & Boylston polishing machine; apparatus for hand polishing; one large Leitz metallurgical microscope with photomicrographic camera; one Heele-Berlin spectroscopic; one Spencer metallurgical microscope; one electric hot plate; one set prepared specimens of the common and ferro alloys; one Holtzer-Cabot ½-hp. motor.

Electro-Metallurgical—At present the electro-metallurgical equipment consists of a small arc melting furnace and heat treating muffle furnace. Additions will be made to this equipment during the coming year. Additional equipment

is also available in the United States Bureau of Mines Building.

Mining—The Mining Laboratory consists of the following equipment:

One 8½-inch by 9-inch Laidlaw feather-valve compressor; one 25-hp. motor, direct connected to compressor; one Ingersoll-Sargeant piston drill; one Cochise piston drill; one jackhammer drill; one Waugh stoper; one butterfly stoper; one Obertop drill tester; one Tool-O-Meter; one Clark airmeter; one electric blasting machine; one breathing apparatus; hand and machine drill steels, mine lamps, shovels, hygrometers, anemometers, etc.

Petrographic—The Petrographic Laboratory includes the following equipment:

One Sauveir & Boylston polishing machine; apparatus for hand polishing; one diamond saw; one grinding lap; eight Bausch & Lomb petrographic microscopes; one reflecting goniometer; one microscope for the study of polished sections of opaque ores and minerals; 1,200 slides of rocks and minerals; 1,500 hand specimens of rocks and minerals.

Seismograph—The Seismograph Laboratory equipment consists of one Weichert inverted two-component seismograph, and a small Ewing duplex pendulum. These are kept in continuous operation throughout the year. The records are used chiefly for the study of earthquakes of local origin.

PUBLIC USE OF SCHOOL OF MINES LABORATORIES

As there are no public testing laboratories in the State of Nevada, the University Board of Regents has authorized the use of the laboratories of the Mackay School of Mines by properly qualified persons under certain restrictions. The conditions under which the laboratories may be used are as follows:

1. The laboratories may be used only during regular laboratory hours, which are from 8:40 to 12:15 a. m. and 1:15 to 3:45 p. m. from Monday to Friday, inclusive, and from 8:40 to 12:15 a. m. Saturday. The laboratories may not be used on Sunday. All work must be planned to conform to this requirement, and no motors must be left running at other times.

2. No person will be permitted to use the laboratories at times when his work will interfere with that of students, faculty, or other experimenters.

3. Any person desiring to use the laboratories must first satisfy the instructor in charge that he is thoroughly capable of undertaking the work he has in view.

4. He must then present to the instructor a written application setting forth the work he proposes to undertake and stating what machines he wishes to use and for what lengths of time. The use of the assay laboratory for routine assaying will not be permitted.

5. If the instructor approves this application, he will sign it and note thereon the fees and deposits which he considers necessary to reimburse the University for supplies used, power consumed, wear on machinery, breakage, etc.

6. The application must be presented to the Comptroller and the fees and deposits noted thereon paid before laboratory work may begin. Any unused portions of deposits may be recovered from the Comptroller upon presentation of a refund order signed by the instructor.

7. The laboratories must be kept in good order during the experiments, and at the conclusion of the experiments must be put in the same condition in which they were found.

LABORATORIES OF THE EXPERIMENT STATION OF THE UNITED STATES BUREAU OF MINES

The laboratories of the U. S. Bureau of Mines are equipped to carry on investigations in ore dressing, flotation, hydro- and electro-metallurgy, chemistry, and radioactivity. The usual facilities are provided for assaying and chemical analysis. The equipment for preliminary ore dressing includes a Case crusher, iron rolls, Brown pulverizer, coffee mill, Abbe silex-lined ball mill, Abbe pebble mill, Patterson iron ball mill, Sturtevant impact screen, Tyler automatic screen shaker with a complete set of screens, Wetherill magnetic separator, Dings magnetic separator, Richards pulsating classifier and jig, Wilfley table and a centrifugal concentrator of special design by the Station. Flotation equipment of various designs includes two Ruth, two mechanical, one Colburn, and one Janney machine. The hydrometallurgical equipment consists of earthenware leaching pots, redwood agitating and settling tanks, acid-proof distributing pumps, filter presses, and vacuum and pressure pumps. The electrical equipment includes an electrical switchboard of 50-kva. capacity, and electric vacuum, arc, and resistance furnaces. The laboratories for work in radioactivity are provided with a full electroscopic equipment

for the measurement of radium ores and the various radioactive products, and includes alpha ray, gamma ray, and emanation electroscopes, designed by the Bureau of Mines, and an apparatus for collecting radium emanation. About 500 milligrams of radium element and 30 milligram equivalents of mesothorium are available. Equipment for high-temperature measurements consists of a Brown pyrometer, a Thwing pyrometer, platinum-rhodium and base metal thermocouples, and a Leeds and Northrop potentiometer. Special equipment includes a Gaertner comparator for the measurement of wave-lengths, a Gaertner cathatometer, a photometer for determining the brightness of luminous paints, and a Caron-Clevenger reduction furnace for the treatment of refractory manganiferous silver and gold ores.

AGRICULTURAL LABORATORIES

Dairy (Room 12, Agricultural Building)—This laboratory contains machinery for the manufacture of butter, ice cream and cheese, and equipment for bottling milk and sterilizing utensils. It also has full equipment for making quantitative and qualitative tests of all dairy products. The present equipment can easily accommodate ten students in any one section.

Experiment Station Chemical—In this laboratory the students who are interested in agricultural work have an opportunity to pursue this work according to the methods adopted by the Association of American Agricultural Chemists.

Farm Crops—This laboratory includes a large display of samples of seeds and matured plants of the different varieties of cereal and forage crops. The equipment includes a large electric germinator for testing all kinds of farm seeds for germination; testers and cleaners; dockage machines; and other equipment used by the Federal Government for the commercial grading of grain and hay. Students will make germination and purity tests of commercial samples of farm seeds sent to the laboratory from the various farming districts of the State.

Soil Physics—The Soil Physics Laboratory contains tables fitted with gas and water, and holding the chemical reagents used in the work; soil screens; tubes for determining capillarity, water retention and effect of mulches. Various appliances for determining column weight, pore

space, specific gravity, etc., are provided. Harvard balances for weighing, not demanding extreme accuracy, and analytical balances for the more exact work are furnished. In connection with the soil-moisture work, there are provided balances for weighing, soil cans, an electric soil oven, and soil augers and tubes for taking samples. For the work in mechanical analysis, the laboratory is fitted with analytical balances, agitator, soil sieves and shaker, and a centrifuge. A part of the laboratory is used as a storeroom, where soil can be taken, dried, ground, mixed, and stored in suitable bins.

Wool—The Wool Laboratory has been equipped with forty one-half fleeces of wool, representing the various breeds from the sheep sections of America, New Zealand, Argentine, Great Britain, and Australia. Small samples of wool for study and examination are mounted on plaques. A set of cases contains the entire Nevada exhibit displayed at the Panama-Pacific International Exposition.

Veterinary Science—This laboratory is fitted up for research in pathology and bacteriology. It is used for the work of the Department of Veterinary Science in the Agricultural Experiment Station, and the State Veterinary Control Service.

HOME ECONOMICS LABORATORIES

Cooking—The Cooking laboratories, pantries and locker rooms are on the second floor of the south half of the Agricultural Building. The Cooking Laboratory is equipped with tables, four set-in white enamel sinks, and gas plates for twelve students, around a hollow square, with all the utensils for individual practice in cooking, and with full equipment for a large quantity of cooking and catering. Adjoining the cooking laboratories are two-unit kitchens equipped with gas ranges, sinks, tables, closets and utensils for preparing family-sized receipts; a wood-and-coal range, and oil and electric stoves, so that the students may learn the use of all common fuels. Adjoining the unit kitchens is a dining room suitably furnished for catering. The large built-in sideboards and side-wall lights make the room very attractive.

Sewing—The Sewing Laboratory, well lighted by south and west windows and the modern electric fixtures, is fitted with sewing and drafting tables and individual lockers for twenty students, with ironing boards, irons, and six sewing-

machines. Adjoining this room is a large garment-fitting room equipped with full-length triplicate mirrors and space for hanging all garments in the process of making.

Millinery—The Millinery Laboratory, on the first floor is equipped with low work tables and individual lockers for twenty students, with a white enamel sink for dampening and shaping hat foundations, and with a full equipment for steaming, renovating and pressing hat materials.

Demonstration—The Demonstration Laboratory and Lecture Room has raised seats for one hundred students, and a 16-foot demonstration table equipped with a white enamel sink, and a gas range. This lecture room is also provided with a lantern for illustration of demonstrations and lectures.

SCIENTIFIC COLLECTIONS

MACKAY MUSEUM

The Mackay Museum, located in the northwest wing of the Mackay School of Mines, contains the mining, metallurgical, geological, and mineralogical displays. The exhibits in this museum are arranged in such a manner as to give a good general idea of the mining industry of the State of Nevada, and to illustrate standard classifications of minerals and rocks. At the left of the entrance to the museum is a large map of Nevada, showing the location of all the mining districts of the State, while in the center of the museum at the rear there is a topographical relief map of the State on a scale 4 miles to the inch. The show cases on the left-hand side of the museum present a collection of minerals arranged scientifically according to Dana, followed by a systematic collection of rocks; the cases on the right-hand side of the museum are devoted to displays of Nevada ores of the precious and base metals and of Nevada economic minerals, arranged according to counties, while the cases on the center aisle contain collections of minerals arranged according to their economic uses.

Special exhibits include a collection of fossils illustrating the development of life from the earliest known to the present; a collection of rock drills from the earliest to the most recent type; an exhibit illustrating mining and various mining processes; and a collection of assay products.

Among the several collections included in the museum are the Nevada State Mining Exhibit from the Panama-Pacific Exposition, the exhibit at the Goldfield session of the American Mining Congress in 1909, the loan collection of the United States Geological Survey of the rocks and minerals of Goldfield; ores and minerals of Nevada, presented by Colonel H. B. Maxson; the collection of rocks and minerals formerly in the State Capitol at Carson City; the Cole collection, purchased from Dr. Cole by Mr. Mackay and presented by him to the museum; the Malcolm McDonald collection, presented to the University after the death of Mr. McDonald; the C. W. West collection, and several other smaller collections received from various sources.

Many valuable gifts were made to the Mackay Museum during the past year, and its continued growth depends largely upon the generosity of those engaged in the development of the mining industry of Nevada. Contributions of specimens of country rocks, ores, minerals, and metallurgical products, and of photographs, maps, diagrams, and models are greatly desired.

The museum is open to the public during the school year, and as far as possible every facility will be placed at the disposal of any one who wishes to inspect or study the various collections.

BIOLOGICAL MUSEUM AND COLLECTIONS

The Biological Museum is in the southwest room on the first floor of the Agricultural Building. A portion of the biological collections, including economic insect life-histories and mounts of economic birds and mammals, is arranged here for public exhibition.

The biological collections include a set of some 400 skins and mounts of native birds; 100 sets of birds' eggs and about as many nests, donated by Mr. Steinmetz of Carson City; 250 insect life-histories and several miscellaneous groups; 75 stuffed mammal skins and mounts; 25 mounted skeletons of various vertebrates; nearly a thousand general museum preparations; about 10,000 prepared microscopic slides; some 200 zoological and physiological models, and about 60 botanical models, some 900 lantern slides, as well as much miscellaneous material.

HERBARIUM

The Nevada Agricultural Experiment Station herbarium now contains 12,000 mounted sheets, nearly all of western species, and at least half of them from Nevada. Certain of the forage plants, as grasses, clovers, and lupins, are especially well represented. Although as yet small, this collection is of considerable importance, as it contains a number of types and typical plants obtained from type localities.

Connected with this herbarium is a large number of negatives depicting various phases of plant life.

PATHOLOGICAL MUSEUM

The Department of Veterinary Science has a collection of several hundred permanently mounted gross pathological specimens covering practically all the common infectious

diseases of animals and miscellaneous disease processes of particular interest. The collection also contains some material from human sources, mostly representing disease processes common to both man and the lower animals. This collection is available for teaching purposes and inspection.

CHEMICAL SPECIMENS

A number of substances representing the field of the chemical industries have been collected and placed in cases in the lecture room of the Chemistry Building. Among these are samples purchased from chemical dealers; about 200 samples made and put up by students in the laboratory; about 80 samples of American-made dyes manufactured by the National Aniline and Chemical Company and donated by Professor Maxwell Adams; plastics, including artificial silk and leather; explosives; alloys; lubricating oils; and all the common minerals.

PUBLIC LECTURES

GENERAL ASSEMBLY

A general assembly of University students and members of the faculty is under the special direction of the Standing Committee on Assemblies and Lecturers. Lectures are given by members of the faculty and by men and women of special eminence in particular fields of study, travel, and business enterprise. The 11-o'clock hour Fridays is kept free for assemblies.

The following is a list the of lectures given in 1926-1927:

COMMENCEMENT, 1926

- May 8—Phi Kappa Phi Address, "Charloteers of the New Day," by Reverend Wilsie Martin of Hollywood, California.
 May 9—Baccalaureate Sermon, "Greater Things," by Reverend Wilsie Martin of the First Methodist Episcopal Church of Hollywood, California.
 May 10—Commencement Address, "The Product of a University," by Reverend C. S. S. Dutton of the First Unitarian Church of San Francisco, California.

ASSEMBLY ADDRESSES

- August 27—Convocation Address, President Walter E. Clark.
 September 17—Constitution Day Address, Hon. J. G. Scrugham, Governor of Nevada.
 October 15—"The Chinese Youth Movement," Dr. T. Y. Wang, of Manchuria, China.
 November 12—Concert, Marie Montana, Soprano, and Bernard Ocko, Violinist, of the National Music League.
 November 22—"Uncle Sam's Samoan Islands," Dr. Wherahiko Rawei, of the Samoan Islands.
 1927
 January 28—"The Transcontinental Highways Exposition," W. L. Miller, Executive Secretary of the Exposition Board of Reno, Nevada.
 February 10—"The Return of Peter Grimm," Mrs. Emma Courow of Creamridge, New Jersey.
 February 25—"The Women of India," Mrs. Oliver Bainbridge of England and India.

THE ROBERT LARDIN FULTON LECTURE FOUNDATION SERIES:

- April 18—"The Revolt of Asia."
 April 19—"The End of the White Man's World."
 April 20—"Cherry Blossom and Pear Orchard."
 Upton Close (Josef Washington Hall), Poet, Author, Lecturer, of Seattle, Washington.

FACULTY SCIENCE CLUB, 1926-1927

- September 23—Report on meetings of American Association for the Advancement of Science, by Dean Maxwell Adams, Dean Robert Stewart, and Professor George W. Sears.
 October 14—"Purposes and Preliminary Results of the Greenland Expedition," Dr. J. E. Church, Jr.
 October 28—"The Science of House Heating and House Insulation," Professor Jay A. Carpenter.
 November 11—"Diagnosis and Treatment of Different Types of Goiter," Dr. Vinton A. Muller.
 December 8—"Some Phases of Economic Geology," Professor Fennerman of the Geology Department of the University of Cincinnati, Ohio.
 January 13—"Rickets as a Problem in Physiological Chemistry," Professor Roger W. Truesdell.
 January 27—"Freshman Orientation," Dean F. H. Sibley.
 February 10—"The Radio," Professor F. L. Bixby.
 February 24—"The Boulder Dam Project," (Illustrated), Hon. James G. Scrugham.
 March 11—"Recent Developments in Vacuum Tubes," Professor L. W. Hartman.
 April 7—"X-ray and Radium Therapy," Dr. M. R. Walker.
 April 21—"Native Trees of Nevada," Dr. P. A. Lehenbauer.

ORGANIZATIONS AND PUBLICATIONS

THE ALUMNI ASSOCIATION

The Alumni Association was organized in June, 1894. Its object is to promote union and good fellowship among the Alumni, and to advance and protect the interests of the University of Nevada. The dues of the association are \$1 a year for ten years, or a life membership for \$10. The annual meeting is held during Commencement week.

OFFICERS FOR 1926-1927

President.....	HAROLD HUGHES,'24
Vice-President.....	JOHN J. McELROY,'24
Secretary.....	LOUISE BLUM LEWERS,'95

EXECUTIVE COMMITTEE

THOMAS E. BUCKMAN,'21	FRANK H. NORCROSS,'91
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THE ASSOCIATED STUDENTS

The student body is organized into an association called "The Associated Students of the University of Nevada." Through this association the students handle all matters relating to the student body as a whole, and control all athletic interests of the University subject to the approval of the Faculty Committee on Athletics. The officers of this association are elected by popular vote. By the payment of the student fee each semester a student receives the A. S. U. N. card which entitles him to a vote in the association and admission to all local games, contests, or other events under the Association's management, and subscriptions to the U. of N. Sagebrush, the Desert Wolf, and the Artemisia.

THE UNIVERSITY HOSPITAL ASSOCIATION

In January, 1919, at the request of the student body, the Board of Regents approved the organization of a Student Hospital Association under the joint management of a student and faculty committee. From the experience gained in the four years of its successful operation and from a comparative study of the hospital organizations in other universities, the original plan has been modified and expanded into the University Hospital Association. This plan went into effect in September, 1923.

The direct management of the Association is the responsibility of the University Committee on Health. Its membership consists of all students who pay the regular hospital fee of \$3 a semester. This fee will be exacted of all students who do not live with their parents or guardians in Reno or Sparks unless they present at the time of registration a written request from their parents or guardians that they shall not pay such a fee. While primarily intended for the safeguarding of the health of students who are away from home, the Association will accept into its membership any student living at home who would like to take advantage of its privileges by paying the membership fee.

The funds obtained from the hospital fee will be used to pay the salaries of the College Physician and of the Hospital Matron, to purchase necessary equipment, medicines, hospital supplies, and such other services and materials as may be needed. Any surplus above that required to provide for emergencies will be used to extend the services of the Association to its members.

The College Physician will hold regular daily consultation periods at the University hospital. Members are entitled to call for his services at any other time only if they are confined to their beds with a legitimate illness or on the occasion of an emergency. Students who prefer to see the College Physician at his down-town office may have the privilege of doing so by paying the special rate for Association members of \$1 per visit.

The University Hospital will at all times be at the service of the Association members. The matron in charge will care for the patients. General nursing, treatment by the College Physician, medicines, prescriptions, and laboratory diagnosis will be furnished free of charge, but special nursing or the attendance of physicians other than the College Physician will have to be paid for by the individual patient. Patients will obtain their board from the Dining Hall and will be expected to pay the regular rates therefor, but such special articles of diet as may be prescribed by the physician or deemed desirable by the matron will be furnished free of charge. At the discretion of the Health Committee ward beds in St. Mary's Hospital for a period not to exceed two weeks for any one student member in any one year, including board, general nursing and the attendance of the College Physician, may be provided by the Association without

charge to members, but special nursing, surgical, operating, or other expenses must be assumed by the patient.

In the special cases of operations or other prolonged illnesses, members may make applications to the Health Committee for financial assistance, and in case the funds will permit it part of such expenses may be paid by the Association.

THE ASSOCIATED WOMEN STUDENTS

The Associated Women Students is an organization made up of all the women students registered at the institution. Its purpose is to bring all the women together in order to obtain more effective action. The dues are 25 cents per semester, which is deducted from the amount paid into the A. S. U. N. treasury. The organization gives a \$25 scholarship each year to the woman student attaining the highest average grade for the year and who receives no other scholarship.

THE FACULTY SCIENCE CLUB

The Faculty Science Club is an organization of those members of the Faculty who are interested in scientific research. The purpose of the organization is to broaden the outlook and to come in touch with scientific progress outside of one's own sphere of activity. Biweekly meetings are held in the lecture room of the Agricultural Building. Reports are presented and discussed at each meeting. The subjects of the reports are either the result of individual research or articles of general interest that have recently appeared in scientific journals. The meetings are open to visitors.

Advanced students find the meetings of considerable value.

HONOR SOCIETIES

The Phi Kappa Phi is a national honor society composed of graduate and undergraduate members of all departments in American universities and colleges. Its prime object is to emphasize scholarship in the thought of college students, to hold fast to the original purpose for which institutions of learning were founded, and to stimulate mental achievement by the prize of membership. This society elects to membership a certain number from the graduating class, on the basis of high scholarship. Local chapter established in 1912.

Sigma Gamma Epsilon—A national organization of geologists, mining engineers, metallurgists, and ceramists. Upper-class students in these subjects are eligible to membership

in the local chapter. Biweekly meetings are held for the discussion of problems related to these professions.

CLUBS AND ASSOCIATIONS

The Engineering Society—All engineering students and the engineering faculty are members of the Engineering Society. The society meets once or twice a month during the semester. Engineers and technical men are invited to address the members. The purpose of the society is to broaden the viewpoint and increase the knowledge of the students, as well as to extend their acquaintance among practicing engineers.

The Chemistry Club—This organization includes all students, faculty and others on the campus interested in Chemistry. Its purpose is to keep its members in touch with present developments in the chemical field and to foster interest in the science of Chemistry. Meetings are held each Thursday evening in conjunction with Chemistry 95-96. Once each month a program of special interest to undergraduates is arranged.

Sigma Sigma Kappa—An honor organization whose membership is elected from the Chemistry Club on the basis of scholarship and ability shown in the field of Chemistry.

The Crucible Club—This is an organization of the upper-class mining, metallurgical, and geological students and faculty. The club meets every other Wednesday, and is addressed by prominent members of the mining profession, or papers are read by the various members. The Crucible Club is affiliated with the Society of the American Institute of Mining and Metallurgical Engineers.

The Aggie Club—Founded by the agricultural students in 1909. This organization has since been very active, now sponsoring the Aggie Show each year and having many other activities. Women and men students, as well as faculty members of the College are members. The Club meets the last Wednesday of each month to carry on business and social activities.

The Debating Society—Membership in Clonia, the debating society of the University of Nevada, is open to all the students of the University. Its purpose is to encourage and support debating, both local and intercollegiate.

Delta Alpha Epsilon—The purpose of this society is not

only to develop histrionic talent among the young women of the University, but to awaken an appreciative interest in dramatic interpretation by the presentation of standard plays.

The Campus Players—The aim of this society is to offer the men and women of the University a chance to develop their talents both in the appreciation of good plays and by furnishing the opportunity for presentation.

Mu Alpha Nu—This club was formerly known as the "Math" Club, and its aim is the furtherance of interest in the science of mathematics.

Coffin and Keys—A club organized for the purpose of securing and rendering efficient the complete cooperation of all students by combining in organized form the men of the University who are considered leaders in student life and activity.

Home Economics Society—The faculty of the Department of Home Economics and all students electing one or more courses in that department may be members of this association.

Fraternities and Sororities—The following fraternities and sororities have chapters, the figures in parentheses giving the dates chapters were established in this University: National fraternities—Sigma Nu (1914), Sigma Alpha Epsilon (1917), Phi Sigma Kappa (1917), Alpha Tau Omega (1921), Sigma Phi Sigma (1922), Delta Sigma Lambda (1922), Beta Kappa (1925); local—Kappa Lambda (1921). National sororities—Delta Delta Delta (1913), Pi Beta Phi (1915), Gamma Phi Beta (1921), Kappa Alpha Theta (1922); local—Sigma Alpha Omega (1922); Beta Delta (1923).

Lincoln Hall Association—The Lincoln Hall Association is an organization composed of the students of the University of Nevada who reside in Lincoln Hall. Its object is to deal with all matters of student concern in Lincoln Hall and to preserve its customs and traditions.

Manzanita Hall Association—Residents of this hall are organized into a body under the name of Manzanita Hall Association, with president, vice-president, secretary and treasurer elected for one year. The chairmen of standing committees, which include the phases of dormitory life (Red Cross work, laundry, room inspection, bell duty, quiet, and

fire drill), are appointed by the president of the association. Meetings of the association are held monthly.

Christian Associations—The Young Women's Christian Association has a branch organization among the students with a membership of over one hundred girls in the University. The purpose of the association is the maintenance of high standards in all student relations, mutual helpfulness and pleasure, and the promotion of Christian ideals.

The Young Men's Christian Fellowship Association of the University of Nevada has for its purpose the encouragement and cultivation of religious interests among men on the Campus. Among other activities, it favors the formation of discussion groups which deal with problems of vital ethical and religious interest.

The Trowel and Square Club—This is a club of campus members of the Blue Lodge Masons.

Musical Organizations—Volunteer organizations for the promotion of both vocal and instrumental music are heartily encouraged. The organizations at present are the Men's and Women's Glee Clubs, the University Orchestra and the University Band.

The Press Club—This is an organization of those interested in writing, in the student publications of the University, and in the profession of journalism. They gather each fortnight to discuss common interests and to mingle socially.

Mu Beta Sigma—This is a club of students specializing in psychology and interested in research and experimentation in this subject.

Cap and Scroll—A club organized for the purpose of developing the highest ideals on Nevada's Campus by combining in organized form the women of the University who are leaders in student life and activity.

The Caucus Debating Society—This society is organized for the purpose of furthering speech on the Campus, through local contests in debating, declamation, and oratory. All students are eligible who have speaking ability.

The Commercial Service Club—This is an organization of students interested in a better understanding of the world of business and commerce.

Sigma Sigma—An honor organization whose membership is elected from the students majoring in Home Economics on

the basis of scholarship, qualities of leadership and the application of principles taught in Home Economics.

UNIVERSITY PUBLICATIONS

The Bulletin—The Bulletin is the official publication of the University and is issued quarterly. It gives information concerning the University and such other matters as may be helpful to the cause of education in the State.

University Studies—The University Studies are published at irregular intervals.

STUDENT PUBLICATIONS

The U. of N. Sagebrush—The U. of N. Sagebrush is issued weekly throughout the University year by the students of the University. The Sagebrush staff have Room 102 of the Physics Building as their office.

The Desert Wolf—The Desert Wolf is a quarterly published by the Associated Students of the University of Nevada. It was started in the fall of 1923.

The Artemisia—The Artemisia is an annual published by the Associated Students of the University of Nevada.

PHYSICAL EDUCATION AND ATHLETICS

MEN

The purpose of this department is to assist the men of the University to live to the best advantage, and so to aid them in the formation of hygienic habits that during their stay at the University they may make profitable physical preparation for life. There is urgent necessity that each student should have an intelligent appreciation of the means requisite for the preservation of his health, in order that he may be able to formulate wisely his own policy of health control.

REQUIRED PHYSICAL EDUCATION

Physical Education is required of all Freshmen and Sophomores unless excused for disability by the University Physician. Credit counting toward the college degree is given. The individual's grade is largely based on attendance, punctuality, earnestness and application, but practical tests are also given.

PHYSICAL EXAMINATIONS

Each student on entrance to this department is given a physical examination in order that his work may be directed to meet his individual requirements. Members of squads out for varsity teams, reporting regularly, are excused from the practical work during the regular season of that sport, and are entitled to full credit in that portion of their work.

UNIFORM AND FEE

Each student must provide himself with a regulation uniform. These should not be procured until after arrival at the University.

Tentative Cost of Uniform:

White sleeveless gym shirt.....	\$0.75
White running pants, short leg.....	\$1.25 up
White rubber-soled shoes.....	\$2.00 up
Athletic supporter.....	\$0.75 up

A locker-and-laundry fee of \$1 is charged each semester.

ATHLETICS

Excellent facilities are provided on the Mackay Athletic Field for all branches of athletics. American football, baseball, track, basket ball, and tennis are the sports of special

prominence at present. The main policy of the University is to foster the spirit of honor and manliness, to prevent the development of commercialism or professionalism in athletics, and to see to it that athletic sports do not encroach upon the claims of scholarship. Athletic activities in the University are supervised by the Directors of the Departments of Physical Training for Men and for Women, who are counseled by the Athletic Committee of the Faculty.

To represent the University of Nevada in a public contest a student must conform to the following rules:

1. He must be an amateur.
2. He must have presented 15 Carnegie units for entrance.
3. He must be registered in at least 12 hours of University work.
4. He must have passed two-thirds the normal requirements of his course the preceding semester.
5. He must be successfully carrying two-thirds the normal requirements of his course one week preceding the first conference game. If declared scholastically eligible at this time he shall be scholastically eligible for the remainder of the season.
6. No student on probation will be permitted to represent the University in any public contest.
7. All students must pass a physical examination satisfactory to the Committee on Athletics.
8. Schedules for all games must be submitted to the Committee on Athletics and approved by them.
9. Approval by the Committee on Athletics is required in the case of every individual intending to represent the University of Nevada in any single contest.

WOMEN

The University gives its young women the opportunity for an all-around physical development by maintaining a Department of Physical Education. Physical training, properly applied, makes an important contribution to sense and motor training and to the development of physical judgment, presence of mind, self-reliance, courage, and strength of will. These ends are sought through systematic exercise, both out of doors and in the gymnasium, as well as through the various forms of athletics suited to women.

The women students of the University have organized an Athletic Section in conjunction with the Associated Women

Students for the purpose of fostering mass and interclass athletics. Every woman is eligible to membership by participating in any sport and through this organization may win recognition in many branches of athletic activity, *i. e.*, hockey, volley ball, basket ball, baseball, track, and tennis.

Work in Physical Education is required of all Freshman and Sophomore women. Upon entering a class, students are carefully examined and measured by the Physical Director to discover the individual needs of each. As far as possible the work of this department will be adapted to these needs. If necessary, upon the advice of a physician, Freshman and Sophomore work may be *postponed*.

During each semester of this required work instruction is given in personal and public hygiene.

Women taking these courses are required to provide themselves with a regulation gymnasium suit and shoes. Suits with guimpes cost from \$12 to \$15. Students must provide themselves with suits, but are advised not to make such purchase until they have counseled with the Physical Director for Women. A \$1 locker-and-laundry fee is charged each semester.

MILITARY SCIENCE AND TACTICS

1. There is maintained at the University an Infantry Unit of the Reserve Officers' Training Corps.

This corps was established by the Act of Congress of June 3, 1916, for the purpose of preparing, by systematic and standard methods of training, students at civil educational institutions for reserve officers in the United States Army.

2. The corps consists of all physically fit male students in first and second years at the University and such additional students as may elect to continue with the advanced work in their third and fourth years.

3. When registering in Military for the first time at the University, students are required to take an examination to determine their *physical* fitness for enrollment in the Reserve Officers' Training Corps.

4. The United States Government furnishes service uniforms and all equipment necessary to carry on the instruction. In addition, those who elect to continue the work in their Junior and Senior years are paid commutation of rations and are required to attend a training camp at the end of the Junior year.

NOTE—At the present time, the amount paid to students enrolled in the advanced course approximates \$200 for the two years.

5. The arms, equipment, and uniforms issued to students for military training are the property of the United States for which the University is financially responsible. To protect the University against any charge for loss or damage to government property arising from misuse or neglect on the part of the student, a deposit of \$10 will be required from each student registered in Military.

6. Every male student who is a candidate for graduation in any of the schools of the college will be required to complete the prescribed two-year (Basic) course of Military Training unless excused therefrom by proper authority.

The following students may be excused from all or a part of the prescribed training:

(a) Those over 27 years of age.

(b) Those who have had previous military training equivalent to all, or part, of the prescribed course.

(c) Aliens, and those physically unfit for military service. Students excused from Military Training receive no credit toward advanced standing in Military except in the case of those who have received training as members of an R. O. T. C. unit, or at an educational institution under the supervision of an officer of the Army regularly detailed as Professor of Military Science and Tactics.

Excused students not receiving advanced credit are required to take additional work aggregating the number of units allowed for that part of the military course from which they are excused.

7. Students who satisfactorily complete the basic and advanced military courses will be tendered commissions by the United States Government as Second Lieutenants of Infantry in the Reserve Corps of the Army.

8. Special Regulations for the Department of Military Science and Tactics are published in pamphlet form, a copy of which will be issued to each student registered in Military. The cadets will be held to a strict observance of all special regulations of the Military Department and to such orders and instruction as may be issued from time to time in connection with their military training.

9. All cadets are required to perform the prescribed military duties unless excused in advance by the President or the Commandant. In case of absence without previous excuse, a written explanation will be submitted upon resuming duty. In case of sickness or injury, such explanation must be authenticated by the signature of a parent or of a physician.

10. Cadets will be held strictly accountable for the care and proper use of the public property in their possession. They will use only such arms and equipments as are officially assigned (by number to each cadet) and must return them to their proper places in the armory immediately after drill.

11. Upon registration, each cadet will immediately take steps to familiarize himself with the Regulations for the Department of Military Science and Tactics.

HONORS, COMPETITIONS, PRIZES, AND FOUNDATIONS

UNIVERSITY SCHOLARSHIP HONORS

The University gives recognition to such students as attain a high grade of scholarship by announcing at Commencement time the students who have received honorable mention in each of the several colleges, or in their full four-year course. Honorable mention is won by attaining a standing of 90 per cent or better on the average in the full work of any one year or of the four years. At the end of each semester the Faculty Scholarship Committee issues a scholarship Honor List.

GOLD MEDAL

A gold medal is awarded annually to that member of the graduating class who has attained the highest average grade of scholarship throughout his college course.

Beginning with Commencement of 1923, the firm of R. Herz & Brother, jewelers, of Reno, Nevada, generously makes an annual gift of this gold medal.

PHILO S. BENNETT PRIZE

The Philo S. Bennett prize is the interest on a fund of four hundred dollars, the prize to be awarded for the best essay on "The Principles of Free Government." The income from this fund is allowed to accumulate until a prize of approximately fifty dollars can be given.

SENIOR PUBLIC-SERVICE PRIZE

(Established, 1924)

This prize, the annual gift of Dr. Henry Albert, Director of the State Hygienic Laboratory, carries an annual value of twenty-five dollars, and was first given at Commencement of 1924.

This prize is to be awarded annually at Commencement to that member of the graduating class whose collegiate record shows the most satisfactory combination of good scholarship, good character, and worthy service in behalf of the University or the community, or both.

The winner of this prize shall be chosen by the Chairmen of the Faculty Committees on Scholarship and on Athletics,

the Dean of Women, the Master of Lincoln Hall, and the President of the University.

THE ROBERT LARDIN FULTON LECTURE FOUNDATION

(Established, 1924)

In memory of Robert Lardin Fulton, constructive citizen of Nevada for over half a century, Mrs. Mary Bragg Fulton has established a lecture foundation at the University. The income from this foundation is to be used to bring annually to the University some leader in the field of science, art, literature or public affairs, who will give a series of lectures upon his special themes. The foundation was initiated in April, 1925. The Committee chosen by the founder to select the lecturer under this foundation consists of the President of the University, the Deans of the Colleges of Arts and Science, of Agriculture, and of Engineering, and of the School of Education, and the Director of the Mackay School of Mines.

<i>Lecturers</i>	<i>University Year</i>
Dr. ROBERT A. MILLIKAN.....	1924-1925-
Dr. EDWARD T. DEVINE.....	1925-1926-
UPTON CLOSE (Josef Washington Hall).....	1926-1927

SCHOLARSHIPS AND FELLOWSHIPS

For 1927-1928 the following scholarships are available:

1. REGENTS' SCHOLARSHIPS

(Established, 1911)

Five Regents' Scholarships of \$50 each, to be awarded annually to regular students on the basis of scholarship, one to a Freshman, two to Sophomores, and two to Juniors. These scholarships will be announced at Commencement, and shall be paid to the winners the first of October following, provided these winners have enrolled for the subsequent year's work in this University, otherwise they shall be paid to alternates satisfying the conditions.

2. THE ELLA S. STUBBS MEMORIAL SCHOLARSHIP

(Established, 1919)

The Women's Faculty Club offers the Ella S. Stubbs Memorial Scholarship of \$100 to a student entering the Junior or Senior class who is working his way, wholly or in part, through the University and who has received no other scholarship.

3. THE ALICE G. CLARK SCHOLARSHIP

(Established, 1917)

A yearly scholarship of \$250, established and maintained by Mrs. W. A. Clark, Jr., in honor of her mother, Katherine Hays McManus, is being continued by Mr. W. A. Clark, Jr., in memory of Mrs. Clark, and is known as the Alice G. Clark Scholarship. It is to be awarded alternately to a man and then to a woman student who is closing the Junior year and is the worthiest Junior of individual ability and need. The Scholarships Committee shall choose an alternate for the scholarship, judging on the same conditions. The scholarship award shall be payable one-half on September 15 and one-half on January 15 following the Commencement announcement and shall be paid only if the winner is then duly enrolled for the Senior year's work in this University, otherwise it shall be paid to the chosen alternate, provided that alternate is duly enrolled for the Senior year's work in this University.

4. ASSOCIATED WOMEN STUDENTS' SCHOLARSHIP

(Established, 1918)

A yearly scholarship of \$25 is given by the Associated Women Students of the University of Nevada to the woman student attaining the highest average grade for the year and who receives no other scholarship.

5. THE LEWIS D. FOLSOM SCHOLARSHIP

(Established, 1920)

An annual scholarship of \$100, given by Mrs. Mary E. Folsom of Reno, in memory of her husband, Lewis D. Folsom.

This scholarship is to be awarded alternately to a man and then to a woman student of the Junior Class, who is deemed by the Scholarship Committee to be the worthiest member of that class of individual ability and need and who is not receiving another scholarship. The Scholarship Committee shall choose an alternate for this scholarship, judging on the same conditions. This scholarship award is payable on October 1 following the Commencement announcement and shall then be paid to the winner only if enrolled for regular Senior work at the University. Otherwise, it shall be paid to the chosen alternate, provided that the alternate is duly enrolled for Senior work in this University.

6. THE ROSE SIGLER MATHEWS SCHOLARSHIP FUND

(Established, 1920)

This scholarship fund was established by Mr. Isaac R. Mathews of Reno, Nevada, in memory of his wife, Rose Sigler Mathews. The trust fund, given by Mr. Mathews for scholarship purposes, amounts to \$6,700, and yields an annual income above \$300. By arrangement with the donor during the earlier years of this scholarship, the Board of Regents will grant scholarships from the income of this trust fund upon the recommendation of Mr. Mathews, and such scholarships may be, on Mr. Mathew's further recommendation, continued to his nominees, provided they make good scholarship records.

7. RENO BRANCH OF THE NATIONAL ASSOCIATION OF UNIVERSITY WOMEN SCHOLARSHIP

(Established, 1921)

The Reno branch of the National Association of University Women offers the Theodora Stubbs Fulton Memorial scholarship having annual value of \$200. This scholarship is to be awarded to an upper-class woman student of the Univer-

sity of Nevada, who has taken all her work at the University of Nevada, provided that—

1. She shall have maintained a high average during the first two or three years of her college course in the University of Nevada, and shall have been active in college activities.

2. She shall not have received another scholarship for the period covered by this scholarship.

This scholarship shall be awarded on the recommendation of the University Committee on Scholarships with the approval of the Executive Committee of the National Association of University Women.

These same committees shall choose an alternate satisfying similar conditions.

The winner of this scholarship shall be announced at Commencement.

The scholarship shall be paid to the winner in two equal installments; one at the beginning of each semester in the following University year; provided, she be duly enrolled in the University of Nevada; otherwise it shall be paid to the chosen alternate provided she be enrolled.

8. THE MARYE WILLIAMS BUTLER SCHOLARSHIP FUND
(Established, 1921)

In the University year 1921-1922, Mrs. Sophie E. Williams of Nye County, Nevada, established a scholarship fund of \$1,000, to be known as the Marye Williams Butler Scholarship Fund, in memory of her daughter, Marye Williams, graduate of the Normal School of the University of Nevada, Class of 1899.

The income from this fund is to be awarded annually by the University Scholarship Committee, beginning with the Commencement of 1923, to the most worthy student who has completed University mathematics through calculus and differential equations with an average grade of at least 2 in all these University mathematics courses, who has earned due credits in this minimum of mathematics, not later than the closing semester of the Junior year, and who receives no other scholarship.

This scholarship will be payable on or before October 1 following the Commencement of its award, provided the student winner is then enrolled for the new year's work in the University of Nevada, otherwise the scholarship will be payable to an alternate chosen under similar conditions by the University Scholarship Committee and duly enrolled for the new year's work in the University of Nevada.

9. THE ADOLPHUS LEIGH FITZGERALD SCHOLARSHIPS
(Established, 1921)

These two scholarships, each of an annual value of \$150, were established in the fall of 1921 by the Scottish Rite bodies of Masonry in Nevada, in memory of Adolphus Leigh Fitzgerald.

These scholarships are to be awarded at each Commencement, beginning with that of the year 1922, one to a man student, the other to a woman student, under the following conditions:

1. The student must be the worthiest man or woman completing a Freshman year's work in the University of Nevada who receives no other scholarship.
2. The student must be of a Nevada family or must be a graduate of a Nevada high school.
3. The scholarship sum will be paid to the winner on the 15th day of September following the Commencement award, provided that the winner is then enrolled for the regular work of the Sophomore year in his chosen course at the University of Nevada. Otherwise, this scholarship sum shall be paid to an alternate chosen under the same conditions and duly enrolled for the work of the Sophomore year in the University of Nevada.

10. THE AZRO E. CHENEY SCHOLARSHIP FUND
(Established, 1922)

The Honorable Azro E. Cheney bequeathed to the University of Nevada \$5,000 in trust, to be controlled and invested by the Board of Regents. The income from this trust fund is to be awarded, by the University Scholarship Committee, at each annual Commencement of the University to that member of the Freshman or Sophomore class who is a bona fide resident of Nevada and whom the Head of the Department of English shall certify is justly entitled thereto as the best student in English, during that year, character and improvement both being considered. This scholarship sum shall be payable one-half on the 15th day of September and one-half on the 15th day of January following the award, provided the winner is then enrolled for a further year's work in the University of Nevada, otherwise to an alternate satisfying the conditions.

11. THE GENERAL O. M. MITCHELL WOMAN'S RELIEF
CORPS SCHOLARSHIP
(Established, 1922)

This yearly scholarship of \$50 was established by the General O. M. Mitchell Woman's Relief Corps No. 27. It is to be

awarded to that student of the Sophomore class enrolled in the Reserve Officers Training Corps who has completed the basic course and who, in the opinion of the officers of the Army on duty at the University, best exemplifies the soldierly qualities of attention to duty, punctuality, neatness, and military bearing. This scholarship award is payable on October 1 following the Commencement announcement and shall be paid to the winner or a chosen alternate only if then enrolled in the Advance Course. Should neither the winner nor alternate qualify by enrolling in the Advanced Course, the award shall accumulate not to exceed \$100 and shall then be payable to the first winner or alternate who qualifies in a succeeding year.

12. THE ROBERT LEWERS SCHOLARSHIPS

(Established, 1923)

These two scholarships, each of an annual value of \$150, were established in the spring of 1923 by the Scottish Rite bodies of Masonry in Nevada, as a memorial to Robert Lewers.

Since the year 1924 these scholarships have been awarded, one to a man student, the other to a woman student, under the following conditions:

1. The student must be the worthiest man or woman having completed the first semester of a Freshman year's work in the University of Nevada, who receives no other scholarship.
2. The student must be of a Nevada family or must be a graduate of a Nevada High School.
3. The scholarship sum will be paid to the winner on the 10th day of January each year, provided that the winner is then enrolled for the work of the second semester of this Freshman year at the University of Nevada. Otherwise, this scholarship sum shall be paid to an alternate chosen under the same conditions and duly enrolled for the work of the second semester of the Freshman year at the University of Nevada.

13. WOMEN'S ATHLETIC ASSOCIATION SCHOLARSHIP

(Established, 1923)

This scholarship, of \$75 annual value, was established in 1923 by the Women's Athletic Association of the University. It is annually to be awarded to a woman student of the Freshman, Sophomore, or Junior Class, in time for Commencement announcement, by a committee consisting of the Head of the Department of Physical Education for Women,

the Athletic Instructor for Women, and the President and two Senior members of the Women's Athletic Association, in accordance with the following conditions:

1. The student, during the year then closing, must have participated in at least four interclass sports and must have been a member of at least three teams of her class.
2. The student must have been a leader in good sportsmanship.
3. The student, for her college course to date, must have earned a scholarship average of not less than 2.5.
4. This scholarship amount will be paid to the winner on the 1st of October following the Commencement award, provided the student is then duly enrolled for another year's work in the University of Nevada. Otherwise, the scholarship shall be paid to the alternate best satisfying the conditions.

14. THE NEVADA BAR ASSOCIATION SCHOLARSHIP

(Established, 1925)

This \$100 scholarship, given by the Nevada Bar Association and available for award for the first time at Commencement, 1925, is to be awarded annually at Commencement by the University Scholarship Committee to a worthy student who has earned Sophomore standing during the first year's University work and who has made most marked progress in written and in spoken English during that year.

This scholarship sum shall be payable on the first of October following the award, provided the winner is then enrolled for a further year's work at the University of Nevada, otherwise to an alternate satisfying the conditions.

The Bar Association expects that each student to whom this scholarship shall be awarded will, after he is successfully established in business or profession, return the sum awarded to him to the University to be again awarded to a student who satisfies the conditions stated for this scholarship.

15. THE CHARLES H. MOORE SCHOLARSHIP

(Established, 1925)

A debating scholarship of \$50, donated by Colonel Charles H. Moore of Reno, is awarded by the University Scholarship Committee each Commencement to that student who has earned Junior standing in the University and who, during the Freshman and Sophomore years, has shown the most progress in debate and who intends to take part in University debating activities during the Junior year. This scholarship amount is payable October 1 following the award, provided the winning student is then duly enrolled in the University of Nevada for the Junior year's work, otherwise

to an alternate satisfying the conditions. The first award will be made at Commencement of 1926.

16. THE MRS. CARL OTTO HERZ SCHOLARSHIP

(Established, 1926)

This scholarship was established early in 1926 by Mrs. Carl Otto Herz of Reno.

The scholarship carries an annual value of \$50 and is to be awarded at the end of each University year, beginning with May, 1926. The scholarship is to be awarded by the University Scholarship Committee to one of three Electrical Engineering students nominated to the Committee by the Head Professor of Electrical Engineering. The nominees must each be Electrical Engineering students who are self-supporting in whole or in part, are of good character and of good scholarship, and who have earned Senior standing in the University of Nevada. The scholarship sum will be payable to the winner on September 15 following the award, provided the winner is then enrolled in the University of Nevada for his Senior year in Electrical Engineering. Otherwise the sum is to be paid to a chosen alternate satisfying the same conditions.

17. THE CHARLES ELMER CLOUGH SCHOLARSHIPS IN ENGINEERING

(Established, 1926)

In the fall of 1926 Mr. Charles Elmer Clough of Reno established two scholarships in Engineering.

These two scholarships each carry an annual value of at least \$150, and are to be awarded at the end of each University year, beginning with the award in May, 1927. The scholarship winners are to be chosen by the head Professors of the Schools of Civil, Electrical, and Mechanical Engineering. The winners each year must be chosen from the students enrolled in Civil, Electrical, and Mechanical Engineering and must, in the judgment of the selecting Professors, be the best all-round students, who are self-supporting in whole or in part, are of good character and of good scholarship, and who have earned one, Senior standing, and the other Junior standing, in the University of Nevada.

The scholarship sums will be payable to the respective winners, one-half on September 15 and the other half on January 15, following the award, provided the winners are then enrolled in the Engineering College of the University of Nevada. In case any winner is not so enrolled, the

scholarship sum will then be paid to a similarly chosen alternate satisfying the same conditions.

18. THE JAMES WARD GERMAN-KATHERINE MORRISON GERMAN SCHOLARSHIP

(Established, 1926)

This scholarship, carrying an annual value of \$500, was established in the fall of 1926 by Mr. and Mrs. James Ward German of Reno.

In the spring of each second year, beginning with the spring of 1927, the Principals of the four-year high schools of Nevada will be requested to nominate candidates for this scholarship to the President of the University of Nevada, who shall select the winning German scholar from these nominees.

The following conditions shall be observed:

- a. This scholarship is to be awarded alternately to a young man and to a young woman, beginning with an award to a young man for the two University of Nevada years beginning with August, 1927. Each winner shall hold this scholarship for two successive years, provided the conditions stated in d and e below are satisfied.
- b. Any nominee must have been graduated from a regular four-year Nevada high school, must have maintained a high scholarship record throughout the high school years, must be of good character and must have been helpfully active in the general life of the high school. The candidate must be one who, without aid of a scholarship would have to be self-supporting, in whole or in large part, if he came to college.
- c. The family of the candidate must have been resident in Nevada at least four years prior to the date of nomination or, if the candidate is an orphan, or has been wholly self-supporting, then the candidate must have been a bona fide resident of Nevada for at least four years prior to his nomination.
- d. The scholarship amount for each winner is to be \$500 for each of two consecutive University of Nevada years, except that whenever the award is made to a candidate recommended from the Reno or Sparks high schools, then the winner shall receive \$350 for each of two years, and a second award of the remaining \$150 shall be made for each of two consecutive years to the candidate of second highest record. In each University year one-half of the scholarship amount due shall be paid on September 15 and the other half on January 15, provided that the winner is duly enrolled in the University of Nevada on these dates.
- e. If within the two years of the scholarship any holder fails to maintain good standing in the University of Nevada, both in scholarship and in conduct, the President of the University is authorized to stop any further payments to this scholar. The sums accruing from such stoppage of pay-

ments or accruing because of any scholar's death or withdrawal from the University of Nevada shall be used to fund an added scholarship, or scholarships, in the discretion of the President of the University, to be awarded at the next regular time for choosing a new scholar. However, if any winner fails to take residence in the University of Nevada in the fall following his selection, the President of the University shall then award the scholarship to an available alternate who next best meets the conditions of the original award.

19. THE RHODES SCHOLARSHIP

Special attention is called to the Rhodes Scholarships in Oxford University, England, to which one appointment from the State of Nevada will be made for each of the years 1926, 1928, 1929, and so on, omitting every third year. The scholarships are each of the value of approximately \$2,000 a year, and are tenable for three years.

Scholars will be selected on the basis of the following qualities:

1. Qualities of manhood, force of character, and leadership.
2. Literary and scholastic ability and attainments.
3. Physical vigor, as shown by interest in outdoor sports or in other ways.

The ideal Rhodes scholar should excel in all three of the qualities indicated, but in the absence of such an ideal combination, committees will prefer a man who shows distinction either of character and personality, or of intellect, over one who shows a lower degree of excellence in both. Participation and interest in open-air and athletic pursuits form an essential qualification for a Rhodes scholar, but exceptional athletic distinction is not to be treated as of equal importance with other requirements.

In addition to the above requirements, a candidate to be eligible for election from the State of Nevada must—

1. Be a citizen of the United States, with at least five years' domicile, and unmarried.
2. Be a student in or a graduate of the University of Nevada, or, if a student in some other university or college, a resident of Nevada.
3. By the 1st of October of the year for which he is elected have passed his nineteenth and not have passed his twenty-fifth birthday.
4. By the 1st of October of the year for which he is elected have completed at least his Sophomore year in the University of Nevada or in some other recognized degree-granting university or college of the United States.

The appointments thus far made to Rhodes Scholarships from the State of Nevada are as follows:

- 1907—ARTHUR LEONIDAS ST. CLAIR¹, Deeth, Nevada.
 1908—WILLIAM SCOTT UNSWORTH, Reno, Nevada.
 1910—STANLEY MAYHEW WILTON,² Goldfield, Nevada.

¹Died February 29, 1920.

²Withdrawn before completion of work.

- 1911—CEDRIC HARDING BEEBE,³ Reno, Nevada.
 1913—FLOYD SHERMAN BRYANT, Sparks, Nevada.
 1914—WALTER CLARENCE JEPSEN, Verdi, Nevada.
 1917—THOMAS HENRY EDSALL,⁴ Reno, Nevada.
 1918—No appointment was made, owing to the war.
 1919—STANLEY M. PARGELLIS, Reno, Nevada.
 1921—CHARLES M. CHATFIELD, Reno, Nevada.
 1922—LESLIE MALTBY BRUCE,⁵ Reno, Nevada.
 1923—PAUL A. HARWOOD, Reno, Nevada.
 1925—JOHN OCHELTREE, Reno, Nevada.
 1926—FRED SIEBERT, Reno, Nevada.

The Rhodes Scholarships offer an unusual opportunity both for a university education in the Liberal Arts, the Sciences, Engineering, or the professions of Jurisprudence or Theology, and for travel among the chief centers of life and activity in foreign lands. These advantages, with the gift of financial means approximately ample for their enjoyment, have made these scholarships the most attractive ever established.

Further information about Oxford and the Rhodes Scholarships may be secured by addressing the President of the University of Nevada, or the Secretary of the Committee, Professor J. E. Church, Jr., Reno, Nevada.

20. THE JOHN ARMSTRONG CHALONER RESEARCH FELLOWSHIP AND WOMEN'S PRIZES

(Established, 1925)

A. Through the gift of John Armstrong Chaloner of Virginia, the University of Nevada, the United States Bureau of Mines cooperating, offers in the Mackay School of Mines an alternate year fellowship under the following conditions:

1. This fellowship is open to graduates of American mining colleges of recognized standing. Preference will be given to candidates who have had practical experience subsequent to graduation.
2. The income of the fellowship is \$750 per year, payable monthly. The only fees required will be regular laboratory fees in connection with courses in the School of Mines, and the diploma fee, the fellow being exempted from other fees approximating \$175 for the year.
3. The year runs from July 1 following each election to June 30 of the following year, with one month out for vacation.
4. The holder of the fellowship will be required to carry a minimum number of graduate courses in the Mackay School of Mines and, in lieu of the usual thesis, will be assigned to research service with the United States Bureau of Mines Rare and Precious Metals

³Died January 4, 1926.

⁴Died January 2, 1918.

⁵Died January 8, 1923.

Station located on the Campus. In his research service, the holder of the fellowship will be subject to rules governing employees of the United States Bureau of Mines and he is to begin this research service July 1, 1926.

5. The holder of the fellowship, having satisfactorily completed the year's work, will receive the degree of Master of Science or other advanced mining degree for which he may be qualified.

This fellowship shall be awarded in alternate years, beginning with the University year 1925-1926. If in any year due for this fellowship a fellow satisfying the above conditions shall not have been chosen by September 15, then the \$750 for that year shall be given as prizes to women students in accord with B below.

B. Each alternate year, beginning with the University year 1926-1927, Mr. Chaloner's \$750 is, by his plan, to be awarded in five \$100 first prizes and five \$50 second prizes to women students to be chosen in the fall semester by the Associated Women Students of the University.

BENEFICIARY AID

LOAN FUNDS

The Nevada State Federation Scholarship Fund—The Nevada State Federation of Women's Clubs has established a scholarship fund for the University of Nevada to be loaned to students in amounts varying to suit individual needs. The money thus loaned is to be returned to the fund at the borrower's convenience without interest. The fund is available first to girls, high-school graduates, or girls who have completed one year of normal or university work, the latter to have the preference. Boys are eligible under like conditions, but only when the funds are ample and no applications from girls are on file. Students desiring to take advantage of this offer will apply to Mrs. E. E. Wardin, State Chairman of the Committee on Student Loan Fund, 130 West Liberty Street, Reno, Nevada.

The David Russell Loan Fund—By will, David Russell of Loyaltan, California, bequeathed, in 1908, the income of his residual estate, amounting to a little above \$19,000, to be paid to the University of Nevada after a small payment had been made to another institution. The Board of Regents established the David Russell Fund to receive these annual payments after they became available in 1913. The Board has set aside \$5,000 of this fund as a revolving fund for loans to deserving students who satisfy the President of the University of their fitness to receive this aid. The money is loaned to students on the basis of 4 per cent interest until maturity.

The Olin Ward Bequest—Two scholarships of \$300 each, bequeathed by Mr. Olin W. Ward of Reno, Nevada. Under the terms of the will the beneficiaries of such scholarships must be earnest, industrious boys, of good moral character, financially unable to attend or continue their attendance at the University without the aid of such scholarships, and shall be chosen by the President of the University. Each beneficiary so chosen must, as a condition of his receiving such scholarship and before said sum or any part thereof is paid to him, enter into a written agreement with the Board of Regents that he will, within seven years after

receiving such scholarship, pay or cause to be paid to the Board of Regents the sum of \$300 for the purpose of providing a scholarship in the University for some boy having like qualifications and chosen as above specified.

OTHER AID FOR STUDENTS

It is the purpose of the officers of the University to aid meritorious students of limited means so far as it lies in their power. Some of the work in and about the University buildings and grounds is done by young men and young women. Students are favored whenever possible with such work as typewriting, copying, housework, dining-hall service, and janitorial service. A committee allots the open positions to students who apply, giving preference to those who have good scholarship records, who need the assistance, who do the work well, and who are upper-class applicants. During the year 1924-1925 the committee was able to place fifty men and women students on the Campus, and through its direct efforts additional students were provided with positions in the city. Applications for campus employment should be made to the Secretary of the President. It is to be remembered that the power to favor students with self-help is limited by circumstances, and *therefore students cannot expect to earn enough to pay all their expenses while pursuing their studies.*

The *necessary campus* expenses for a University year are covered by about \$375 for each Nevada student. Students from other States should add \$150 for tuition. (See page 93 for tabulation of expenses.)

It is clearly better, both for the individual student and for the common student life on the Campus, if students can do their necessary money-earning during the long summer vacation. If they can have all their time during their University year free for their studies and for their participation in general student activities, they will more surely develop themselves into fully rounded men and women than if they are compelled to inroad their time with many hours each week given to work for pay. *Particularly is it desirable that first-year students should, if possible, plan fully to finance their first year without necessity of working for pay during the University year. Every student from Nevada should have at least \$150 cash in hand, after reaching the Campus, properly to start any University year. Outside students should have \$250 on hand to start the year.*

EXPENSES OF STUDENTS

TUITION

The Board of Regents is empowered to charge tuition to students who come from outside of Nevada. The Board of Regents set this *tuition charge, payable by students from outside Nevada, at \$75 per semester, beginning with August, 1925. No rebate is allowed on this nonresident tuition charge after the third week of any semester.*

LATE REGISTRATION FEES

A fee of \$3 is charged for registration later than the regular enrolling days of each semester. This fee is increased to \$5 for those registering later than the end of the week including enrollment days. *No exception is made to the rule.* Each student shall complete his registration by 4 p. m. of the second day after he begins registration, otherwise he shall pay to the Comptroller 75 cents for each day or fraction of a day thereafter until his registration is completed.

UNIFORMS

Young women are required to provide themselves with a regulation gymnasium outfit costing about \$8 to \$10.

Students in cooking will provide themselves with two white aprons, costing about \$4.

Military students must make a deposit of \$10 to cover uniform and equipment.

THE DORMITORIES

Manzanita and Artemisia Halls—Manzanita and Artemisia Halls furnish campus residence for women students. They are well ventilated, heated and lighted dormitory buildings, with all modern conveniences and comfortably furnished. They can accommodate one hundred and sixty-five residents.

Dean of Women Margaret E. Mack and Matrons Mrs. Lucie Mayer and Mrs. Laura E. Akin live in these dormitories and have supervision over them. Mrs. Mayer is in charge of the University Dining Hall.

Unless women students have applied for residence in excess of the number that can be accommodated in the women's dormitories, all unmarried women students who are not residents of Reno or Sparks are required to live in one of the women's dormitories during their entire Freshman year. The only exceptions to this rule may be made by the Dean of

Women when written request has been filed in advance with the Dean of Women by parents requesting that their daughter be permitted to live with relatives whose home is in Reno or Sparks. Residence privilege in this hall will not be granted to married women unless they were formerly students of the University. Women students not living in a dormitory are required to select accommodations approved by the Dean of Women. A list of approved places is on file in the office of the Dean of Women.

Application for residence privileges in the women's dormitories should be made to the Dean of Women who will consider such applications in the order of their receipt. Special application blanks for hall residence will be sent on request made either to the Registrar of the University or to the Dean of Women. All applications, to be honored, must (1) Be on file with the Dean of Women at least one week prior to the opening day of any semester; (2) *Be accompanied by a sum covering the room rent for the semester concerned.* The room rent for the first semester is \$34, for the second semester \$36. Checks for room rent should be made payable to the Board of Regents. Such sum will be returned in full to the one making the reservation if due notification is sent of desire to cancel reservation, on or before the end of the first enrollment day of the term, to Dean Margaret Mack. If cancellation or withdrawal is made after the end of the first enrollment day, but before the end of the third week of the semester, one-half of the room fee will be rebated. If withdrawal is made after the end of the third week, no rebate on the semester's room rent will be made.

No one can be given room in a dormitory until room rent for the term has been paid.

All residents of women's dormitories are required to:

1. Register in and to carry throughout each semester at least fourteen credit hours of University work unless excused by the Dean of Women.

2. Conform to the regulations of the Hall as adopted by the Manzanita Hall Association in consultation with the Dean of Women and the Matron of the Hall.

3. Be provided with the following articles: Four sheets, 60x90 inches; four pillow-slips, 20x30 inches; two white bedspreads; one pair of blankets; two comforts; one mattress protector, 3x6 feet, six good towels, two dresser scarfs, and personal toilet articles. If white curtains and rugs are

desired, they must be supplied by the students. Young women should also have two large aprons for work in the laboratories. All articles of room equipment and wearing apparel should be plainly marked with the name of the owner.

4. Take care of their own rooms and linen.

The women's dormitories will open Saturday, August 20, 1927, to receive student residents for the University year 1927-1928.

Lincoln Hall—Lincoln Hall is the University home for young men. The building has accommodations for 90 young men, and it is equal to the best of modern college halls. Dean Raymond H. Leach lives in the hall and is in charge. Young men coming to Lincoln Hall must provide themselves with the following articles: Two white bedspreads; one pair blankets; one comfort, 72x90 inches; one mattress protector, 3x6 feet; six good towels, and personal toilet articles. All articles of room equipment and personal wearing apparel should be plainly marked with the name of the owner.

Application for residence privileges in Lincoln Hall should be made to Master of Lincoln Hall, Dean Raymond H. Leach, who will consider such applications in the order of their receipt. Special application blanks will be sent upon request made either to Dean Leach or to the Registrar of the University.

In order to be honored, *reservations must be* (1) *accompanied by a sum covering the room rent for the semester concerned; and* (2) *be on file with Dean Leach at least one week prior to the opening day of any semester.* The room rent for the first semester of any university year is \$38, and for the second semester, \$40.50. Checks should be made payable to the Board of Regents. Such sum will be returned in full to the one making the reservation if due notification is sent of desire to cancel reservation, on or before the end of the first enrollment day of the term, to Dean Leach. If cancellation or withdrawal is made after the end of the first enrollment day, but before the end of the third week of the semester, one-half of the room fee will be rebated. If withdrawal is made after the end of the third week, no rebate on the semester's room rent will be made.

No one can be given room in the dormitory until room rent for the term has been paid.

Lincoln Hall will be open Saturday, August 20, 1927, to receive residents for the University year 1927-1928.

THE UNIVERSITY DINING HALL

For the accommodation of the students the University conducts a Dining Hall. The service is maintained for the purpose of obtaining board and table service of the most acceptable character and at the most reasonable figure. Students boarding at the Dining Hall will be charged \$25 per month for board. At each student's first meal at the beginning of a University semester \$5 will be collected at the Dining Hall which will be credited toward the payment of the first month's board of the individual. Each student should therefore come prepared to pay this amount to the head waiter. All women students residing in a University dormitory are required to board at the University Dining Hall.

REGULATIONS GOVERNING THE UNIVERSITY DINING HALL

1. Board is payable in advance. When board is not paid by the fifth of the month, an additional 50 cents per day will be added until board is paid and receipt therefor from the Comptroller's Office is presented to the head waiter.

2. Students desiring to board regularly at the University Dining Hall will be required to register with the head waiter.

3. Registration at the Dining Hall will be made only on presentation of the Comptroller's receipt for board paid, or of a special permit issued by the President. In order to furnish board at the rate charged, it is imperative that all board bills be paid, and it is therefore ordered that no credit be extended. *Students who intend to board at the Dining Hall will be expected to come with sufficient money to keep their board paid one month in advance.* When board is not paid by the fifth of the month, an additional 50 cents per day will be added until board is paid and receipt therefor from the Comptroller's Office is presented to the head waiter.

4. Rebate at the rate of \$5 per week will be allowed for necessary absences, but no rebate will be made on board for less than one week's continuous absence. Due notice must be given and permission secured from Miss Mack in advance, or no rebate will be allowed.

PREFERENCES IN DINING HALL AND DORMITORIES GIVEN TO NEVADA STUDENTS

The Board of Regents adopted the following rule:

Whenever the requests for University of Nevada dormitory or dining-hall privileges exceed the number that can be accommodated, preference shall be given as follows:

- (1) To Nevada students.
- (2) To formerly enrolled students from outside Nevada.
- (3) To new students from outside Nevada.

N. B. *Such preferences for Nevada students in the dormitories are open to all who apply not later than one week before the opening of any given semester. Nevadans making application later than*

such time will be accommodated if places are still open, but cannot be received otherwise.

LABORATORY FEES

LABORATORY FEES—Departments giving laboratory courses must charge fees to cover special expenses incident to such courses. These fees are calculated to cover the cost of the materials used and the expense incurred for the individual student.

BLANKET DEPOSIT

At registration time a general deposit of \$10 is required from each student. Breakage or damage in all laboratory courses, in Library, in dormitories and in any other University connection is charged against this deposit. The remainder of this deposit, after all above charges, if any, are deducted, will be returned at the end of the University year only, unless a given student is not returning for the second semester. The military deposit is additional to this general deposit. If there are substantial first-semester charges reported against any given student, the Comptroller has authority to require that student to renew his deposit to the full \$10.

ASSOCIATED STUDENTS MEMBERSHIP FEE

At the request of the Associated Students of the University the Board of Regents voted to make the fee for membership in the Student Association a compulsory fee upon all students except visitors, members of the University staff, and Nevada school-teachers in active service. This fee, \$6.60 for the first semester and \$10.60 for the second semester, which includes subscriptions to the U. of N. Sagebrush, the Desert Wolf, and in the second semester the Artemisia, and which pays up each student's class dues and covers admittance to all regular varsity athletic events, must be paid to the Comptroller at the time of registration.

HOSPITAL FEE

A University Hospital fee is charged to all students with the exception of those who present, at the time of their registration, written request from their parents or guardians that they shall not pay this hospital fee, and with the exception of those students whose families live in Reno or Sparks. This fee is \$3 per semester and is payable to the Comptroller on registration.

TABLE OF TUITION CHARGES, SPECIAL FEES, DEPOSITS AND LABORATORY FEES PER COURSE PER SEMESTER

	Fees
Agronomy 72	\$1.00
Agronomy 6, 57, 62	3.00
Agronomy 4, 53, 73	2.00
Agronomy 71	1.00
Animal Husbandry 4, 56	3.00
Associated Students Fee (First semester)	6.60
Associated Students Fee (Second semester)	10.60
Bacteriology 51	5.00
Botany 1, 2, 5, 55, 64	3.00
Botany 3, 52	2.00
Botany 71, 72	\$2 to 4.00
Botany 91, 92 (fee determined by type of work)	
Chemistry 10	9.00
Chemistry 5, 6, 81, 82, 102	3.00
Chemistry 1, 2, 7, 9, 26, 51, 52, 53, 61, 63, 64, 67, 71, 72, 100	6.00
Chemistry 200 (fee per credit hour)	3.00
Civil Engineering 52, 54, 60, 64	3.00
Civil Engineering 58	5.00
Civil Engineering 58 (Transportation)	15.00
Civil Engineering 72	2.50
Civil Engineering 90	1.00
Dairy Husbandry 1, 53, 54, 56, 59	3.00
Dairy Husbandry, 5, 55	2.00
Deposit, General	10.00
Deposit, Military	10.00
Diploma (Degree or Certificate)	5.00
Drawing Outfits	\$20 to 30.00
Education 20, 60, 71	2.00
Education 41, 48	1.00
Electrical Engineering 61, 62, 63, 64, 77, 78	5.00
Electrical Engineering 80, fee determined by work taken, maximum	10.00
History Syllabus	25c to 1.00
Home Economics 31, 32, 55, 83, 85	5.00
Home Economics 34, 95	.50
Home Economics 9, 15, 16, 18, 45, 49, 50, 66	2.00
Home Economics 88	1.00
Home Economics (locker)	.50
Home Economics 87	1.50
Hospital Fee	3.00
Horticulture 1	2.00
Horticulture 11	1.00
Hygiene 7-8	1.50

¹If a student supplies his own transportation in a satisfactory manner, this fee will not be required.

²If two diplomas are granted in one year, the charge will be \$5 for the first and \$4 for the second, if three diplomas are granted in any one year, the charge will be \$5 for the first, and \$4 each for the second and the third.

³See footnote 4, page 93

⁴According to work being done.

	Fees
Mechanic Arts 1, 2, 3, 4, 5, 6, 7a, 7b	\$4.00 per credit
Mechanical Engineering 64	2.50
Mechanical Engineering 65, 66	5.00
Metallurgy 51	15.00
Metallurgy 52, 65	5.00
Metallurgy 56	\$1.00
Metallurgy 70	10.00
Metallurgy 79, 80, 180 (deposit according to work)	
Mineralogy 1	2.00
Mineralogy 2	3.00
Mining 89, 90	2.50
Nature Study 1, 2	1.00
Physical Education (locker)	.50
Physical Education (laundry)	1.00
Physics 1b, 2b, 11, 12, 13, 19, 20, 57, 58, 63, 81, 82, 83	3.00
Physics 73, 74, 75, 76	5.00
Poultry 2, 4, 6	2.00
Transcript of student record	1.00
Tuition to non-Nevadans	75.00
Zoology 2, 4, 65, 66	4.00
Zoology 51, 63, 64	2.00
Zoology 91, 92, 201 (fee determined by character of laboratory work)	

No rebate is allowed on any of the above fees or upon non-resident tuition payments after the end of the third week of any semester.

TABULAR ESTIMATE OF NECESSARY ANNUAL EXPENSES OF STUDENTS EXCLUSIVE OF PERSONAL INCIDENTALS, CLOTHING AND TRAVELING¹

	Low	Moderate	* Liberal
² Tuition	None	None	None
Board, 8½ months	\$215.00	\$225.00	\$325.00
Room	80.00	90.00	125.00
³ Laundry	25.00	35.00	50.00
⁴ Books, stationery, etc.	30.00	35.00	45.00
Fees (laboratory, athletic, medical, etc.)	30.00	35.00	50.00
⁵ Totals	\$380.00	\$420.00	\$595.00

¹The low and moderate estimates apply to residents of dormitories. The liberal estimate, with the exception of books and fees, applies to students living elsewhere.

²Students from outside the State of Nevada must add a tuition of \$75 each semester.

³This item may be greatly reduced by residents of Manzanita Hall who choose to take advantage of the house-laundry facilities.

⁴All engineering students will require complete drawing outfits. These cost from \$20 to \$30. Students having this equipment should bring it with them.

⁵These amounts do not include the deposit of \$10 required of all students at the beginning of each semester, the required military deposit, nor the cost of drawing outfits needed by all engineering students, nor do they include the cost of special uniforms needed in some departments, such as the gymnasium uniforms.

GOVERNMENT OF THE STUDENTS

In the government of the University the largest liberty consistent with good work, good order, and good character is given the students. Their habits of life are expected to be such as to promote daily cultivation of high moral character. They are expected in all their relations to each other and to the University to observe the usages of good society without requiring special regulations for that purpose. They are expected to be punctual and regular in their attendance upon all University exercises. The State provides its bounty for the earnest and industrious student. The indolent or the unworthy will not be retained in the University. Young men and young women who do not intend to give themselves up to the very highest demand of university life are advised to remain at home or to go elsewhere.

OFFICIAL NOTICES

Students should watch the bulletin-board for notices. AN OFFICIAL NOTICE PROPERLY POSTED IS DEEMED SUFFICIENT INFORMATION TO ALL STUDENTS.

ADMISSION AND DEGREES

Applicants for admission to first-year standing in the University of Nevada should present satisfactory evidence of having completed fifteen units of acceptable high-school or preparatory work. A "unit" represents a year's study in any subject in a secondary school, constituting approximately one-quarter of a full year's work. Two periods of laboratory work, or shop work, count as the equivalent of one recitation.

Applicants for entrance who are Nevada residents but who cannot qualify for regular Freshman standing may be admitted as Limited Freshmen¹ or as Specials.²

SCHOLARSHIP REQUIREMENTS FOR NON-NEVADANS

1. COLLEGE OF ARTS AND SCIENCE

Applicants for admission to first-year standing in the University of Nevada from States of the Union other than Nevada must have a grade above 3³ in at least 10 of their 15 acceptable high school units presented for entrance.

2. COLLEGES OF AGRICULTURE AND OF ENGINEERING

Applicants for admission to first-year standing in the College of Agriculture or in the College of Engineering of the University of Nevada from States of the Union other than Nevada must have a grade above 3³ beginning with the fall of 1927, in at least 4 of their 15 acceptable high school units presented for entrance, and, beginning with the fall of 1928, and thereafter, in at least 6 of their 15 acceptable high school units presented for entrance. "Special" students from outside Nevada will be received by both of these colleges.

No new students from outside Nevada will be received as (a) "Limited Freshmen" in any University of Nevada College; (b) as "Specials" in the College of Arts and Science.

SCHOLARSHIP REQUIREMENTS FOR NEVADA APPLICANTS

Beginning with August, 1927, all applicants for regular Freshman standing or for limited Freshman standing who

¹See footnote, p. 97.

²See p. 105.

³Grades equivalent to this University's "above 3" in the usual A, B, C, etc., system are grades of B or better, and in the percentage grading system are grades of 80 per cent or better.

present credentials from Nevada high schools or are from Nevada families, must present at least 4 of their 15 acceptable high school units with a grade better than 3, and beginning with August, 1928, such students must present at least 6 of their 15 acceptable units with a grade better than 3.

All high school and other certificates which are to be presented for admission should be forwarded to the Registrar of the University prior to the time the student expects to enter. Applications not received in time for an examination by the Admission Committee prior to the opening day will not be considered until after the regular matriculation days.

Applicants, who for any reason have been unable to secure their credentials, may file a petition with the Registrar for temporary admission. Such petition should contain the name and location of the preparatory school, the reason of the absence of credentials, a list of the subjects taken in the preparatory school, and the College of the University which the applicant desires to enter. These petitions will be acted on by the Admission Committee, and meritorious cases will be permitted to register temporarily, pending the receipt of credentials.

LIMITATION OF ENROLLMENT

The Board of Regents at its Commencement session, held May 11, 1920, unanimously adopted the following rules for limitation of enrollment in the University of Nevada, to be applicable from and after September 1, 1920:

That the University of Nevada shall not, during either semester of any University year, receive students whose families or whose guardians reside outside the State of Nevada or who, if they have been living independently of family or guardian, have themselves been residing outside the State of Nevada, to a number exceeding 50% of the total number of students from Nevada enrolled during the preceding University year, September to May, inclusive; *provided*—

(a) That the above limitation shall not be put into effect until the total enrollment of the University has reached 600 for a given semester, or when it will reduce the enrollment below 600; and

(b) That the above limitation policy shall not operate to exclude any students from outside the State of Nevada who desire to enroll in the regular courses for mining engineers, metallurgists or mining geologists, and who are fully qualified for entrance or advanced standing in the Mackay School of Mines.

REQUIREMENTS FOR ADMISSIONS TO THE SEVERAL COLLEGES AND SCHOOLS

ADMISSION OF CANDIDATES FOR DEGREES

The privileges of the University, while open to all qualified persons of good character and serious purposes, are designed

primarily for those who satisfy the requirements for admission and become candidates for degrees. In order to insure some breadth of view on the part of students as well as some degree of achievement, curricula have been established in the several colleges, each intended to meet the needs of a considerable body of students. So far as is consistent with the purposes the curricula are intended to fulfill, students are left free to choose their work according to their individual needs and tastes. For most persons it is believed that the pursuit and completion of a regular curriculum is of much higher value than any unrestricted selection of courses. The University wishes, therefore, to impress upon parents and students its firm belief that, under all ordinary circumstances, students should satisfy the requirements for admission and pursue the regular curricula.

TO THE COLLEGE OF ARTS AND SCIENCE; AND TO THE NEVADA STATE NORMAL SCHOOL

For unconditional admission, 15 units.

I. *Required*: English, 3 units.

Mathematics, 2 units (Algebra and Plane Geometry).

II. *Elective in Groups*:

Three in one and two in another; or two units in each of three of the following groups:

1. Foreign Language: (If foreign language is offered to satisfy group requirements, at least two units must be in one language.)

Latin.	French.	German.
Greek.	Spanish.	

2. Natural Sciences:

Botany.	General Science.	Physical Geography.	Physics.
Chemistry.	Geology.	Physiology.	Zoology.

3. Social Sciences:

Economics.
History (Ancient, Medieval, and Modern, World, English, or American History and Civics).

Sociology.

Commercial Geography.

Commercial Law.

4. Mathematics: c and d.

III. 10 of the 15 required units must be from Divisions I and II.

IV. *Free Electives*: 5 or 4 units.

These may be selected from any of the above subjects, or from any of the subjects appearing on the next page. Not more than 5 units may be taken in subjects 18 to 30, inclusive, and not more than the highest number indicated in any one of these subjects.

¹Students from Nevada presenting 14 or 13 accredited units may be admitted as "limited Freshmen." Nonresidents may not have this classification.

TO THE COLLEGE OF ENGINEERING
ALL SCHOOLS

I. Required:	English	3 units
	Mathematics	3 units
	Algebra	1½ units
	Plane Geometry.....	1 unit
	Solid Geometry.....	½ unit
	History	1 unit
	Physics	1 unit
	Additional Science.....	1 unit
II. Elective.....		6 units
Total		15 units

*TO THE COLLEGE OF AGRICULTURE
SCHOOL OF AGRICULTURE

I. Required:	English	3 units
	History	1 unit
	*Mathematics	2½ units
	Natural Science.....	2 units
	Chemistry	1 unit
	Additional Science.....	1 unit
II. Elective:	Academic or vocational subjects..	6½ units
Total		15 units

SCHOOL OF HOME ECONOMICS

I. Required:	English	3 units
	History	1 unit
	Mathematics	2 units
	Natural Science.....	2 units
	Chemistry	1 unit
	Additional Science.....	1 unit
II. Elective:	Academic or vocational subjects...	7 units
Total		15 units

SUBJECTS ACCREDITED FOR ADMISSION

Subject	Units
1. English (a)	1
English (b)	1
English (c)	1
English (d)	1
2. Latin (a)	1
Latin (b)	1
Latin (c)	1
Latin (d)	1
3. Greek (a)	1

¹The electives may be chosen from recognized high school subjects, but in no case may more than 5 units be elected in subjects 20 to 32, inclusive, and not more in any one of these subjects than the highest number which is indicated. It is advised that the electives include 2 units of foreign language, preferably modern language, and that the science requirement be in chemistry. In certain meritorious cases some entrance credit, not exceeding 1 unit, may be granted for practical experience.

²Students offering only 1 unit of algebra and 1 unit of plane geometry are required to take Mathematics 11 and 12 in the College. Students offering 1 unit of algebra, 1 unit of plane geometry, and ½ unit of plane trigonometry are relieved from taking mathematics in the College.

Subject	Units ¹
Greek (b)	1
Greek (c)	1
Greek (d)	1
4. German (a)	1
German (b)	1
German (c)	1
German (d)	1
5. French (a)	1
French (b)	1
French (c)	1
French (d)	1
6. Spanish (a)	1
Spanish (b)	1
Spanish (c)	1
Spanish (d)	1
7. Italian (a)	1
Italian (b)	1
Italian (c)	1
Italian (d)	1
8. Ancient History (a)	1
Medieval and Modern History (b)	1
English History (c)	1
American History and Civics (d)	1
9. Economics.....	1
10. Sociology.....	1
11. Algebra (a)	1
Plane Geometry (b)	1
Advanced Algebra (c)	½
Solid Geometry (d)	½
12. General-Science.....	1
13. Physics.....	1
14. Chemistry.....	1
15. Physical Geography.....	½ or 1
16. Botany.....	½ or 1
17. Zoology.....	½ or 1
18. Physiology.....	1
19. Drawing.....	½ to 2
20. Music.....	½ to 2
21. Agriculture.....	½ to 4
22. Domestic Science.....	½ to 4
23. Manual Training.....	½ to 3
24. Shopwork.....	1 to 3
25. Bookkeeping.....	½ to 3
26. Stenography.....	½ to 3
27. Typewriting.....	1 to 2
28. Trades and Industries.....	½ to 4
29. Vocational Work.....	1
30. Commercial Arithmetic or Applied Mathematics.....	½ to 1
31. Commercial Law.....	½ to 1
32. Commercial Geography.....	½ to 1

¹A unit represents a year's study in any subject in a secondary school, constituting approximately a quarter of a full year's work. Two hours of laboratory work are regarded as the equivalent of one hour of prepared work.

Additional units for subjects listed above or additional subjects will be accepted if approved by the Committee on Admission and Advanced Standing.

METHODS OF ADMISSION

The credits required for admission to the undergraduate department, as detailed above, may be secured:

- By examination;
- By certificate from an accredited high school or other secondary school;
- By transfer from any university or college of recognized standing.

ADMISSION BY EXAMINATION

Examinations for admission are held at the University immediately preceding the opening of the fall semester. These examinations cover all subjects required or accepted for admission.

ADMISSION BY CERTIFICATE FROM AN ACCREDITED PREPARATORY SCHOOL

On application to the Registrar blank certificates may be obtained by students who wish to enter the University by this method. Students should obtain blanks early and should have them filled out and sent to the Registrar for approval as soon as possible after the closing of the high school year in June. Applications not received in time for an examination by the Admission Committee prior to the opening day will not be considered until after the regular matriculation days.

Applicants for admission to first-year standing in the College of Arts and Science in the University of Nevada from States of the Union other than Nevada must have a grade above 3¹ in at least 10 of their 15 acceptable high school units.

Applicants for admission to first-year standing in the College of Agriculture or in the Engineering Colleges of the University of Nevada from States of the Union other than Nevada must have (a) for the fall of 1927, a grade above 3 in at least 4 of their 15 acceptable high school units; (b) for the fall of 1928, and thereafter, a grade above 3 in at least 6 of their 15 acceptable high school units. "Special" students from outside Nevada will be received in both the Colleges of Agriculture and of Engineering.

¹Grades equivalent to this University's "above 3" in the usual A, B, C, etc. system are grades of B or better, and in the percentage grading system are grades of 80 per cent or better.

Applicants for regular Freshman standing or for limited Freshman standing who come from Nevada high schools or from Nevada families must, beginning with August, 1927, present at least 4 of their high school units with grades above 3, and beginning with August, 1928, such students must present at least 6 high-school units with grades above 3.

Applicants, who for any reason have been unable to secure their credentials, may file a petition with the Registrar for temporary admission. Such petition should contain the name and location of the preparatory school, the reason of the absence of credentials, a list of the subjects taken in the preparatory school, and the College of the University which the applicant desires to enter. These petitions will be acted on by the Admission Committee, and meritorious cases will be permitted to register temporarily, pending receipt of credentials.

ADMISSION BY TRANSFER

Admission is granted by transfer from any university or college of recognized standing on presentation of the proper credentials, but such credit is provisional until the first year's work is completed.

Students who are disqualified at other colleges will not be admitted during the semester immediately following their disqualification.

Students transferring from other colleges must present certificates of honorable dismissal unless one or more full semesters have elapsed since they left their other college. In all cases of transferred students, at least one-half of the credits from other institutions accepted for such transferring students must be of grade above 3.

ADMISSION OF PERSONS WHO ARE NOT CANDIDATES FOR DEGREES

UNCLASSIFIED STUDENTS

An "unclassified" student is one who has satisfied the regular requirements for admission, but who, for reasons satisfactory to the Dean of his college, does not desire to pursue any regular curriculum. He shall present to his Dean a written application for permission to register as an unclassified student, stating why he does not wish to take a regular curriculum, and specifying the courses of instruction he wishes to elect, the prerequisites to which he must already have satisfied. Unless he is over 21 years of age or is self-supporting,

his application must bear the approval of his parents or guardian.

Unclassified students are subject to all rules relating to registration and scholarship. By satisfying the requirements in any curriculum for which they have full admission, they may become candidates for degrees.

SPECIAL STUDENTS¹

A special student is one who *cannot* satisfy the requirements for admission to the college in which he wishes to study. Any person who can satisfy such requirements will be permitted to register only as a regular or as an unclassified student.

Special students must be at least 21 years of age. Except upon the specific recommendation of the principals of their high schools, students who in the previous semester were in high schools will not be admitted to special standing. All applicants must present certificates of good character from reliable persons, credentials covering such academic work as they may have done, or other evidence of their ability and disposition to do satisfactory work in the University. Persons who have shown no serious purposes either in school or in employment will be refused admission. Those admitted will usually be expected to register in not fewer than ten hours in courses of elementary character which may be counted for admission. They will be permitted to register in advanced courses only upon the approval of their Dean and the head of the department concerned. They are expected to meet all requirements for regular admission within two years after entering the University. Except by action of the University Faculty, no person will be permitted to register as a special student for more than four semesters.

A special student who has successfully carried the regular prescribed work of his college during 4 semesters and who has made a grade of 2.5 or better in 90 per cent of his work and who has not received a grade of 4 or 5 in any subject will be allowed to matriculate as a regular Junior student. On the successful completion of his prescribed course he will be permitted to graduate without regard to entrance requirements.

For any person who can present satisfactory reasons for such action, the rules relating to the minimum age limit and

¹No new special students from outside Nevada will be received in the College of Arts and Science.

the minimum number of hours of registration may be waived by vote of the University Faculty.

Special students are subject to all the rules relating to registration and scholarship. By satisfying the requirements for admission to any college they may gain regular standing and become candidates for degrees.

WORLD-WAR SERVICE MEN SPECIALS

Any special student who is a World-War veteran and holds an honorable discharge from the United States Army, Navy, or Marine Corps will be permitted to graduate without regard to entrance deficiencies if he meets all the other requirements for a degree; provided, that if such student should fail in any college subject having entrance prerequisites for which he has no credit, these prerequisites must be made up before the student will be permitted to repeat the college subject.

VISITORS

With the consent of the President and the instructors concerned, regular visitors may be enrolled as such, during the first three weeks of the term, provided they are above 21 years of age or present credentials of graduation from a standard high school. They shall be governed by the regular University rules. Casual visitors may not have the privilege of attending a class in excess of four times during any given semester except with permission from the President. No official record of these visits need be made. Regularly enrolled students of the University, who are registered for the full number of hours, may be allowed only the privilege of the casual visitor. Under no circumstances will visitors be allowed to do laboratory work, engage in class discussion, take the time of the instructor from regular class-work, or receive credit toward a degree. Any eligible visitor who has been a bona fide resident of Nevada for a year or more is exempt from the payment of any fees.

ADMISSION TO ADVANCED STANDING

Students who have graduated from a full four-year high school course and who have also graduated from a one-year professional course in an accredited normal school are allowed one year's credit on advanced standing.

Graduates from a two-year normal school, who are also graduates from a full four-year approved high school course, will be allowed two years' credit on advanced standing, if

they have completed all of the prescribed requirements for admission, and provided the subjects offered for advanced standing are in harmony with the group requirements for graduation.

The preceding statements refer to advanced standing granted by the College of Arts and Science and the State Normal School. All other applicants for advanced standing from reputable universities and colleges will receive, upon presentation of their credentials, such credit as the Committee on Admission and Advanced Standing may deem fair. In all doubtful cases the claims will be referred to the heads of the departments. All credit for advanced standing, however, is provisional and subject to revision at the end of the first year following the enrollment of the student. No such student, however, will be granted a Bachelor's Degree or a diploma without at least one full year of work in residence.

A student who desires to take an examination for advanced credit must present to the instructor by whom the examination is to be given a statement from the Registrar certifying that he is eligible to enter the examination.

UNIVERSITY RULES GOVERNING REGISTRATION

The following rules govern matters of registration, classification of students, conditions and failures, late registration, absences, hours of registration, withdrawals, transfer of students from one college to another, and honorable dismissal:

I. METHOD OF REGISTERING

1. On registration day the student will secure a registration blank from the Registrar. This card will be filled out by the student in accordance with the directions thereon.
2. In registering, the student will observe carefully the rules governing conditions, failures, maximum number of hours, status, and prerequisites.
3. All students having required courses must give preference to such courses in regular sequence; no required course may be deferred beyond one year.
4. Students are expected to remove entrance deficiencies in their Freshman year. At the close of the second semester of each year the Committee on Admission and Advanced Standing will send to the Registration Committee a list of all Freshmen who have not registered for or who have failed in entrance subjects in which they were deficient. The Registration Committee shall then hold up the registration

of such students in their Sophomore year until they register for the subjects in which they are deficient.

5. The signature of the instructor must be obtained for each course the student wishes to pursue.

6. The card must then be approved and signed by the Dean of the College in which the student has registered.

7. After having obtained the Dean's approval, fees will be paid to the Comptroller, who will issue receipts for the same. These receipts must be presented to the Registrar and to the heads of the departments concerned.

8. The registration card shall finally be deposited with the Registrar, who in turn will issue class cards to be filled out by the student and returned to the Registrar. These cards shall be sent to the various instructors and shall entitle the student to enter the classes concerned.

9. Any change of residence occurring after the completion of the student's registration should be reported to the Registrar immediately.

II. CLASSIFICATION OF STUDENTS

1. Three classes of students, seeking college credit, are recognized—regular, unclassified, and special.
2. A "regular" student is one who has satisfied the requirements for admission to a college and is pursuing a curriculum leading to a diploma or degree.
3. An "unclassified" student is one who has satisfied the requirements for admission to a college, but, for reasons satisfactory to his Dean, is not pursuing a regular curriculum.
4. A "special" student¹ is one who, though unable to satisfy the requirements for admission to the college in which he wishes to study, is permitted to register in courses for which he has satisfactory preparation.
5. For regular Sophomore, Junior, or Senior standing, a student's deficiencies must not exceed 6 college units from the requirements of his college.

III. CONDITIONS AND FAILURES

1. Each instructor will determine the final grade of his students by any method he may consider best adapted to his course.
2. Any student who receives a final grade of 5 in any subject shall be considered as "failed" in that subject.

¹Special students are not admitted from outside Nevada to the College of Arts and Science.

3. Any student who receives a grade of 4 shall be conditioned. A condition may be removed by satisfying the requirements of the department. A student who desires to remove a term condition must present to the instructor by whom the examination is to be given a statement from the Registrar certifying that he is eligible to enter the examination.

4. A failure in a required subject shall be removed by repeating the subject in class. This must be done as soon as the study is repeated in the University program, and any required subject in which a student has failed takes precedence over all other subjects in the arrangement of his program.

5. If a condition in any course is not removed within the next year of the student's residence after it is incurred, the course must be repeated in class.

6. A student may be dropped from class at any time for negligence or misconduct upon recommendation by the instructor and with the approval of the committee concerned.

7. A student may be placed on probation or suspended from the University at any time his scholarship or conduct warrants such action. Unless a student is passing in two-thirds of his work, he is liable to be placed on probation or to be suspended from the University. Each individual case will be considered by the Committee on Registration and Scholarship.

8. Students who have twice been suspended for unsatisfactory work are not permitted to register again.

9. No student while on scholarship or conduct probation may represent the University in any public contest.

10. By a vote of the Faculty Committee on Registration, the rules stated above may be waived for any student who can show that his unsatisfactory record is due to reasons for which he is not personally responsible.

11. Instructors will report on delinquent students at mid-semester. The time for dropping subjects without failure is at the end of six weeks. A student whose work is of passing grade may drop a subject, without failure, at any time with the consent of his Dean.

IV. LATE REGISTRATION

1. A fee of \$3, to be increased to \$5 for those registering later than the end of the week including enrollment days,

shall be charged for belated registration, and there shall be no exception to this rule.

2. A student who begins to register after the regular registration days shall not be permitted to enroll in the number of hours to which he would otherwise be regularly entitled; for every week or fraction thereof of delay in registering one hour will be deducted.

3. No person will be permitted to register as a student after the close of the third week of either semester. This rule applies also to changes in registration.

4. Each student shall complete his registration by 4 o'clock p. m. of the third day after he begins registration, otherwise he shall pay to the Comptroller 75 cents for each day or fraction of a day thereafter until his registration is completed.

V. HOURS OF REGISTRATION

1. Including required Military Science and Physical Education, regular students in the College of Engineering shall register for eighteen hours. In the Normal School, in the College of Arts and Science, and in the College of Agriculture, including the School of Home Economics, beginning with the class which was the Freshman class in the fall of 1924, students shall register for fifteen hours in addition to required Military Science and Physical Education.

2. No Freshman during the first semester shall be allowed to enroll in more credits than his regular course requires.

3. Any student may at any time enroll in as low as three credits less than his course requires, but to take less than this amount the student must have the Dean's permission.

4. In case a student during the previous semester¹ receives above 3 in three-fourths of all of his work, and has no 4 or 5, he may enroll in a maximum of three hours above the normal requirement of his course. No other student shall be allowed any extra work.

Two exceptions may be allowed to this rule:

(1) A Senior, who, during the previous semester, carried the allowed three extra hours, received above 3 in three-fourths of his work, received no 4 or 5 in any work, and who needs one to four hours for graduation above that allowed by

¹Previous semester, when used to determine the maximum number of hours, shall be construed to mean the last semester in which a student was registered. Students entering from another school with advanced standing who wish to take extra hours must furnish records to the Registration Committee showing that the work previously done was of grade corresponding to that required of our own students who are eligible for extra hours.

the rule, may be allowed to register, each semester, in one or two hours above the extra three allowed by the rule.

(2) A Senior, who, during the previous semester, received above 3 in two-thirds of his work, received no 4 or 5 in any work, and who lacks for graduation a few more hours than the rule allows, may be allowed three hours above his regular course. The Registration Committee shall enforce this rule.

5. In case a student failed to pass in some of his work during the previous semester, the Dean may restrict his registration to fewer hours than his course regularly requires.

6. The Registrar shall check up these regulations for each student when he finishes registering.

7. At the beginning of any semester, with the approval of the Deans concerned, a student may change his registration from one college to another. In so transferring, the student shall satisfy the admission requirements of the college to which he transfers, effective at the time he is admitted to the University, and he shall satisfy the course of study of the college to which he transfers¹, effective at the time the transfer is made, the details of the transfer to be handled by the Committee on Admission and Advanced Standing.

8. Special students must enroll in at least ten hours of work. Exception to this rule can only be made by action of the University Faculty.

VI. WITHDRAWALS

1. A student who wishes to withdraw from any course shall first secure from the Registrar a withdrawal slip. He shall take this to the instructor in the course in question for his signature. He will then report to the Dean of his College, who may grant a withdrawal from the class. The withdrawal slip must be filed by the student with the Registrar, who shall notify the instructors concerned. The date of the withdrawal shall be the date on which the slip is filed with the Registrar.

2. After the end of the sixth week of the semester a student desiring to withdraw from a course must present to the Dean a written statement from the instructor stating that his work done to date is of passing grade, otherwise the record will be "withdrawal with failure."

3. In courses in which fees are charged no fees will be returned to the student upon withdrawal from class after the end of the third week of any given semester.

¹See page 118 for Arts and Science requirement.

VII. TRANSFER OF STUDENTS TO ONE COLLEGE FROM ANOTHER

1. When a student transfers from one college within this University to another, he shall have the same standing in the college to which he transfers as he had in the college from which he transferred, except that he shall satisfy the specific requirements of the college to which he transfers.

VIII. HONORABLE DISMISSAL

1. Upon the request of a student in good standing, the Registrar will issue a letter of honorable dismissal. If the student desires to enter another university, a copy of his or her university credentials, including entrance, and stating thereon whether or not this University recommends such transferee, will accompany the letter. A fee of \$1 must be paid for each transcript of record furnished to students by the University Registrar.

THE GRADING SYSTEM

1. The following grading system became effective in May, 1921:

1	equals 95% to 100%	} (passing)
1.5	equals 90% to 94%	
2	equals 85% to 89%	
2.5	equals 80% to 84%	
3	equals 75% to 79%	
3.5	equals 70% to 74%	} (condition)
4	equals 60% to 69%	
5 ¹	equals Below 60%	(failure)

2. In determining honors, the average of the figures representing the grades per credit shall be taken.

3. Except when a clerical error has been made, the passing grade of a student may not be changed after the class records have been filed with the Registrar, unless the subject has been repeated in a regular college class.

REQUIREMENTS FOR GRADUATION

A candidate for a Bachelor's Degree must pass in all the subjects both prescribed and elective in his chosen course, and he must conform to all directions given in connection with that course in regard to electives.

In order to graduate, a student shall have at least 50% of all his credits above a grade of 3.

¹A negative credit is counted as a grade of 5 when used in calculating semester averages.

In the College of Arts and Science 126 credits are required for graduation.

In the College of Agriculture 130 credits must be presented by candidates who entered in August of 1924, 1925, and 1926. Candidates entering in August, 1927, and thereafter, will be required to present but 128 credits.

In the School of Home Economics 128 credits are required of entrants of 1924, 1925, and 1926. Beginning with the fall of 1927, and thereafter, 126 credits will be required.

In the College of Engineering 150 credits will be required for graduation of the Class of 1928, 148 of the Class of 1929, 146 of the Class of 1930, 144 of the Class of 1931, and thereafter.

In the State Normal School a candidate must complete the courses of study as laid down.

The value of a credit is defined as three hours of work per week for one semester.

DEGREES

The College of Arts and Science confers upon its graduates the Degree of Bachelor of Arts. Any student, however, who pursues a course in which the natural sciences or mathematics have received particular emphasis may, upon petition to the faculty of the College of Arts and Science, be granted the Degree of Bachelor of Science.

Upon graduates of the College of Engineering are conferred degrees as follows: Graduates of the Mackay School of Mines receive the degree of Bachelor of Science in Mining Engineering, Metallurgical Engineering or Geological Engineering. Graduates of the Schools of Mechanical Engineering, of Electrical Engineering, or of Civil Engineering receive, respectively, the Degree of Bachelor of Science in Mechanical Engineering, Bachelor of Science in Electrical Engineering, and Bachelor of Science in Civil Engineering.

Graduates of the College of Agriculture receive the Degree of Bachelor of Science in Agriculture. Graduates from the School of Home Economics receive the Degree of Bachelor of Science in Home Economics.

A charge of \$5 is made for all baccalaureate diplomas. If, however, a student in addition to receiving the baccalaureate degree receives a diploma for a teacher's certificate, the arrangement of the charge is as follows: If two diplomas are granted in any one year, the charge will be \$5 for the first, and \$4 for the second; if three are granted in one year, the charge will be \$5 for the first, and \$4 each for the second and for the third.

DIPLOMAS

For information concerning teachers' diplomas, see The School of Education.

RESIDENCE REQUIREMENT

If a student is in residence at the University for one year only, that year's work must be done in the college from which the degree is expected. No college faculty in the University will recommend a student for a degree unless he has been a regularly registered student in that college for at least one year. Attendance at the summer session is construed as resident study.

THESES

A thesis, if satisfactory, may be offered by each candidate for graduation from any school of the University.

The thesis is intended to give the student an opportunity to make a comparatively independent effort in some chosen field while still under the guidance of some department, and to test his ability for such independent work in a way that cannot be done in connection with ordinary classwork.

It is expected, therefore, that the thesis will show scientific and literary knowledge and good arrangement and presentation of subject.

In order to insure time for the satisfactory preparation of his thesis, the student will elect and pursue thesis work in some department as he would any regular elective course.

The thesis should be typewritten upon 8½x11 paper and bound in a 9x11½ flexible backed cover. All maps and drawings or other illustrations should be so arranged that they can be bound within the same cover. Two copies of each thesis accepted for graduation must be placed in the library.

The title-page should conform to the style of the following sample title-page:

The Origin of the English Gilds

A THESIS

SUBMITTED TO THE FACULTY OF THE COLLEGE OF ARTS AND

SCIENCE IN CANDIDACY FOR THE DEGREE

OF BACHELOR OF ARTS

(Department of History)

By

JOHN EDWARDS SMITH

RENO, NEVADA

1920

GRADUATE COURSES

Admission—Graduates of this University or of other colleges or universities of equal rank are admitted to graduate standing in this University without examination. Admission to graduate study should not be understood as implying admission to candidacy.

Registration—Students wishing to register should present their credentials to the Committee on Admission and Advanced Standing, and if approved a card of admission will be issued to the applicant. When the student has decided in what department he desires to do his major work, he will confer with the head of that department, who, in consultation with the student, will outline the work to be done. The student will then submit the major and minor courses chosen to the Graduate Committee for approval.

Fees—Graduate students pay the same fees as the undergraduates in the various departments of the University.

Degrees Offered—The University offers the following advanced degrees in residence: Master of Arts and Master of Science.

Residence and Candidacy—The student desiring to become a candidate for an advanced degree should file a petition, approved by his major professor, with the Chairman of the Graduate Committee, stating the graduate work already done, and setting forth the proposed work to be offered in candidacy for the degree. No graduate student is considered a candidate for any advanced degree unless he has been definitely advanced to candidacy by his major professor and the Graduate Committee. At least one semester must elapse between the formal advancement to candidacy for any degree and the conferring of that degree. Actual residence and study, except for graduates of this University, must precede formal advancement. Graduate work done in other universities may be accredited toward an advanced degree at the University of Nevada, but such allowance of credit will not reduce the period of residence. The time of residence for students of this University shall not be less than one semester and for graduates of other universities not less than one year.

Outside Work—Work which has been accepted for the Bachelor's Degree may not be used to meet any of the requirements for the Master's Degree. In general one year

of the student's full time will be necessary to complete the work for a Master's Degree. Candidates for advanced degrees who do not wish to spend more than one year in residence may be allowed to give only a limited amount of time to instruction, laboratory assistance, or other outside work. The amount and nature of this work must be definitely set forth by the student and officially allowed by the Graduate Committee. Students doing outside work in excess of the equivalent of two or three units per week will require more than one year to complete the work for a Master's Degree.

Courses of Study—The courses of study shall represent 30 units of work, not less than one-half of which, nor more than three-fourths, shall be done in one department in the College of Arts and Science, or in one school in the College of Agriculture or the Engineering College. With the permission of the Graduate Committee, however, upon the recommendation of the major department and approval of the University Faculty, less than one-half or more than three-fourths of the work may be done in one department or school. The major work should be distributed among two or more instructors where this is possible. Graduate credit will be given only for courses accepted by the major professor, authorized by the Graduate Committee, and approved by the University Faculty. So far as possible these courses should be listed in the catalogue as available for such credit.

A thesis shall constitute a part of the prescribed course of study. It should, ordinarily, represent an equivalent of six to ten units, and shall have the general form prescribed for the Bachelor's thesis, or shall be a reprint of an article appearing in a reputable periodical. It must be presented to the Graduate Committee for their final approval at least two weeks before the date set for the conferring of the degree.

The Master's degree will be conferred only after the candidate has passed an examination in the general field offered for the degree in the major and minor subjects and the thesis. The examiners shall consist of the major professor, the minor professor, and one or two additional professors appointed by the Graduate Committee.

When semester examinations are taken, the grades received will be averaged with the oral examinations and the thesis. An average grade of at least 2 must be attained in all the

work offered for the Master's degree, and no credit be allowed for any course where the grade falls below 3.

The Degree of Master of Arts is conferred upon students who have received the Degree of Bachelor of Arts; and the Degree of Master of Science upon those who have received the Degree of Bachelor of Science or the Degree of Bachelor of Arts in science groups. The diploma fee for a Master's degree is \$5.

ENGINEERING DEGREES

The engineering degrees—Engineer of Mines (E.M.), Metallurgical Engineer (Met. E.), Mechanical Engineer (M.E.), Civil Engineer (C.E.), and Electrical Engineer (E.E.)—may be conferred upon graduates who have taken corresponding courses in the College of Engineering of the University of Nevada, or upon graduates of other institutions who have obtained the Master of Science degree in engineering from the University of Nevada; who have been engaged in honorable and successful engineering work in positions of responsibility for a period of at least five years in the case of holders of the B.S. degree, or four years in that of holders of the M.S. degree; and who submit theses showing ability to conduct advanced engineering work. Theses will not be considered when they are merely investigations in literature, compilations of routine laboratory tests, or presentations of the work of others.

The engineering degrees may also be conferred upon graduates of the College of Engineering of the University of Nevada and upon graduates of other engineering colleges of equal standing, who, after graduation, have been engaged for a period of at least one year in honorable and successful engineering work in a position of responsibility, and who subsequently complete successfully one year of graduate work in engineering, including thesis, at the University of Nevada. Graduates of other institutions must include in their graduate work any subjects in the corresponding undergraduate curricula which are required by the College of Engineering of the University of Nevada, but whose equivalents were lacking in their undergraduate courses.

Formal application for an engineering degree must be filed with the Registrar not later than the beginning of the second semester of the year in which the degree is sought, and approved in turn by the Engineering Faculty and the Graduate Committee. The application must be accompanied

by detailed and satisfactory evidence as to the extent and character of the applicant's professional work. The thesis shall have the general form prescribed for the Bachelor's thesis, or shall be a reprint of an article appearing in a reputable magazine. In the case of a nonresident applicant, it shall be presented to the Engineering Faculty and to the Graduate Committee at least eight weeks before the date set for conferring the degree. The diploma fee for an engineering degree is \$5.

THE COLLEGE OF ARTS AND SCIENCE

FACULTY

- WALTER E. CLARK, Ph.D., LL.D., President of the University.
 MAXWELL ADAMS, Ph.D., Vice-President of the University; Dean of the College of Arts and Science; Professor of Chemistry.
 JAMES EDWARD CHURCH, JR.,¹ Ph.D., Professor of the Classics.
 JEANNE ELIZABETH WIER, A.B., LL.D., Professor of History and Political Science.
 PETER FRANDSEN, A.M., LL.D., Professor of Biology.
 HERBERT WYNFORD HILL, Ph.D., Professor of English.
 LEON WILSON HARTMAN, Ph.D., Professor of Physics.
 CHARLES HASEMAN, Ph.D., Professor of Mathematics and Mechanics.
 REUBEN CYRIL THOMPSON,² A.M., Professor of Philosophy.
 J CLAUDE JONES, Ph.D., Professor of Geology and Mineralogy.
 ALBERT ELLSWORTH HILL, A.B., Professor of English.
 JAMES REED YOUNG, Ph.D., Professor of Psychology.
 COLONEL JOHN PAUL RYAN, Professor of Military Science and Tactics.
 JOHN WILLIAM HALL, A.M., Professor of Education.
 SARAH LOUISE LEWIS, M.A., Professor of Home Economics.
 BENJAMIN F. CHAPPELLE, Ph.D., Professor of Modern Languages.
 GEORGE WALLACE SEARS, Ph.D., Professor of Chemistry.
 FRED W. TRANEK, M.A., Professor of Education.
 PHILIP A. LEHENBAUER, Ph.D., Professor of Biology.
 FRANCIS CLARK MURGOTTEN, Ph.D., Professor of Modern Languages.
 THEODORE H. POST, M.A., Professor and Director of Music.
 KATHERINE LEWERS, Associate Professor of Freehand Drawing and Art.
 KATHARINE RIEGELHUTH, A.M., Associate Professor of English.
 ELSIE SAMETH, M.S., Associate Professor of Physical Education for Women.
 MARGARET ELIZABETH MACK, A.M., Associate Professor of Biology.
 SILAS CALVIN FEEMSTER, A.M., Associate Professor of History and Political Science.
 GILBERT BRUCE BLAIR, A.M., Associate Professor of Physics.
 WILLIAM M. HOSKINS, Ph.D., Associate Professor of Chemistry.
 RAYMOND H. LEACH, A.B., Associate Professor of History and Political Science.
 JOHN EDWARD MARTIE, B.S., Associate Professor of Physical Education for Men.
 EDWARD G. SUTHERLAND,¹ A.B., Associate Professor of Economics, Business and Sociology.
 JESSIE P. POPE, M.S., Assistant Professor of Home Economics.
 MRS. LOUISE KERR HAMMOND, B.S., Assistant Professor of Home Economics.
 ALFRED LESLIE HIGGINBOTHAM, M.A., Assistant Professor of English.
 CAPTAIN LUTHER N. JOHNSON, Assistant Professor of Military Science and Tactics.

¹Absent on leave for year 1927-1928. ²Absent on leave for fall semester only, 1927-1928.

- CHARLES ROGER HICKS,¹ A.M., Assistant Professor of History and Political Science.
 EDITH RUEBSAM, Assistant Professor of Education.
 EDWIN EUGENE WILLIAMS, B.S., Assistant Professor of Modern Languages.
 JOHN R. GOTTARDI, M.A., Assistant Professor of Modern Languages.
 CHARLES L. SEARCY, A.M., Assistant Professor of Mathematics.
 SIGMUND W. LEIFSON, Ph.D., Assistant Professor of Physics.
 CHARLES LEROY BROWN, A.M., Instructor in Biology.
 LAWRENCE T. SHAW, B.S.A., Instructor in Physical Education for men.
 WILLIAM R. BLACKLER, M.A., Instructor in Economics, Business and Sociology.
 JAMES W. CUNNINGHAM, B.S., Instructor in Biology.
 DONALD ELLIOT ANTHONY, M.A., Instructor in Economics, Business and Sociology.
 MRS. B. F. CHAPPELLE, A.M., Instructor in Psychology.
 ROGER W. TRUESDAIL, Ph.D., Instructor in Chemistry.
 EDWIN J. DUERR, A.B., Instructor in English.
 VERREL A. WEBER, B.A., Instructor in Physical Education for Women.
 OLIVER R. GRAWE, M.S., Instructor in Geology.
 ERASTUS A. HANSEN, B.A., Instructor in History.
 NORMAN T. NESS, B.A., Instructor in Economics, Business and Sociology.
 PAUL A. HARWOOD, B.A., Instructor in English.
 LAWRENCE SEMENZA, B.A., Instructor in Economics, Business and Sociology.
 B. D. BILLINGHURST, B.S., LL.D., Lecturer in Education.
 CLYDE D. SOUTER, A.B., LL.D., Lecturer in Law.
 IRVIN S. DANIELSON, B.S., Fellow in Chemistry.

AIM

The aim of the College of Arts and Science is twofold:

1. To lay a foundation for the professions, both learned and technical, and
2. To increase knowledge in and sympathy with the broader and cultural aspects of life.

ADMISSION REQUIREMENTS

For admission requirements, entrance subjects and the number of credits belonging to each, see pages 95-104.

REQUIREMENTS FOR A BACCALAUREATE DEGREE IN ARTS AND SCIENCE

In order to be recommended for the Degree of Bachelor of Arts² a candidate must, first, have satisfied the requirements for admission; and, second, have gained credits in prescribed and elective courses aggregating 126³ semester units. These units are to be distributed as follows:

¹Absent on leave for year 1927-1928.
²Students who have majored in Mathematics or Science may, on petition to the Faculty, be granted the Degree of Bachelor of Science.
³Candidates who entered in the fall of 1924, 1925, and 1926 will be required to present 128 semester units.

FRESHMAN AND SOPHOMORE REQUIREMENTS

Freshman Year

First Semester	Units	Second Semester	Units
English 1 (Composition and Rhetoric) ..	3	English 2 (Composition and Rhetoric) ..	3
Foreign Language	3 or 4	Foreign Language	3 or 4
History 1	3	History 2	3
Physics, Chemistry, Biology, or		Physics, Chemistry, Biology, or	
Mathematics	3 or 4	Mathematics	3 or 4
Military and Physical Education	1-2	Hygiene 1	1
Elective	3	Military and Physical Education	1-2
		Elective	0-2

Sophomore Year

First Semester	Units	Second Semester	Units
English 41 or 44 (Literature)	2 or 3	English 42 or 45 (Literature)	2 or 3
Foreign Language	3	Foreign Language	3
Economics, Philosophy or Psychology ..	3	Economics, Philosophy or Psychology ..	3
Natural Science or Mathematics 2 to 4		Natural Science or Mathematics 2 to 4	
Military and Physical Education	1-1½	Military and Physical Education	1-1½
Elective	3 to 5	Elective	3 to 5

In case of 4 units entrance in one foreign language, 2 units in each of two, or 3 units in one and 1 in another, one year in college in advanced work in one of these languages will suffice. Otherwise two years in college shall be in the same language.

History 1-2 is required of all Freshmen. However, the History requirement in the Freshman year may, in the case of premedical students, with the consent of the Dean, be deferred until the Sophomore or Junior year.

English 41-42, or 44-45, in the case of premedical students, may be deferred until the Junior year.

In Science a total of 12 units in Freshman and Sophomore work is required, at least 6 of which must be laboratory Science or Mathematics.

The Sophomore requirement in Social Science may be satisfied by six units chosen from the departments of Economics, Philosophy, or Psychology.

No subject with the number of 50 or more will be open to Freshmen or Sophomores without the permission of the Dean.

Students transferring to Arts and Science from other institutions and from other colleges in the University of Nevada must meet the above Freshman and Sophomore requirements.

When students transfer to the College of Arts and Science from other colleges, they will be considered deficient in as many hours in Arts and Science as they are deficient in the college from which they transferred.

No student may transfer from the College of Agriculture or the College of Engineering to the College of Arts and

Science unless he be a regular student in the college from which he transfers. Any regular student not eligible for entrance to the College of Arts and Science at the time of his admission to the University may transfer when he has met the following conditions:

1. He shall have attended the University at least two full semesters.
2. He shall have completed more than one-half of the regular course required by his college with a grade above 3.
3. He shall have no conditions or failures at the time of his transfer.

Courses given primarily in other colleges of the University may be taken by Arts and Science students, but not to exceed twenty units of such work shall be counted for Arts and Science Degrees.

JUNIOR AND SENIOR REQUIREMENTS

Candidates for a Baccalaureate Degree must select courses in a group of departments consisting of a major and one or two correlated minors, the total aggregating not fewer than thirty hours of work designed primarily for Juniors and Seniors. Subject to the requirement of correlation, the group may be chosen from any department in the College of Arts and Science. The combined work of the two or three departments should represent a unity of aim. The particular grouping, however, will depend upon the particular aim of the student. For example, a student making some one language his major may find it desirable to elect a considerable amount of History. A student planning to study medicine should elect a major in Biology or Chemistry, but may find it desirable to take additional work in Physics. Those intending to study law, should elect a major in Political Science or Economics, but may find it desirable to take advanced work in English. Students taking a Science major will generally find it profitable to have a good reading knowledge of French and German.

The foregoing directions must be regarded as general in nature; any grouping of major and minor subjects showing an intelligent purpose will be approved.

The specific requirements for majors and minors in the different departments will be found in the description of courses of study under their respective heads in the courses of instruction.

It is advisable that students should plan their work for the Junior and Senior years as early as the Sophomore year, in order that the studies then elected may fit in with their later work. At the beginning of the Junior year, each student must give the Dean written notice of his selection of major and minor departments; such selection should bear the approval of the instructors concerned.

Any student after electing his major and minor departments may, with the consent of the department concerned and of the Dean, change his major department or major and minor departments, as the case may be, provided he complies with all the requirements in the case of the new major and minor departments.

The remaining units necessary to make a total of 128 may be freely elected from any department, or, subject to the limit of twenty units named above, from the other colleges of the University.

REQUIREMENTS FOR THE DEGREE OF BACHELOR OF SCIENCE IN CHEMISTRY

The following course of study is designed for students looking toward the field of chemistry as a profession. It is intended to fit students to enter directly into industrial work or to prepare them for more advanced study. Certain electives are provided in order to fill the needs of students interested in the different branches of chemistry. These electives, therefore, are subject to the approval of the head of the department, and should be chosen in consultation with him.

<i>Freshman Year</i>			
<i>First Semester</i>	<i>Units</i>	<i>Second Semester</i>	<i>Units</i>
Chemistry 5	3	Chemistry 6	3
English 1	3	English 2	3
History 1	3	History 2	3
Mathematics 9	3	Mathematics 10	3
German 1	3	German 2	3
Hygiene 1	1	Hygiene 2	1
	16		16

<i>Sophomore Year</i>			
<i>First Semester</i>	<i>Units</i>	<i>Second Semester</i>	<i>Units</i>
Chemistry 7	3	Chemistry 10	3
Chemistry 9	2	Physics 2a	3
Physics 1a	3	Physics 2b	1
Physics 1b	1	English 42	2
English 41	2	German 4	3
German 3	3	Bus. Adm. 42 or Economics 2	3
Bus. Adm. 41 or Economics 1	3	Elective	2
	17		17

Junior Year			
First Semester		Second Semester	
	Units		Units
Chemistry 51	4	Chemistry 52	4
Chemistry 81	3	Chemistry 82	3
Mathematics 25	5	Mathematics 26	5
Chemistry 95	0	Chemistry 62	0
Elective	4	Chemistry 96	4
		Elective	4
	16		16
Senior Year			
First Semester		Second Semester	
	Units		Units
Chemistry 71	2	Chemistry 72	2
Chemistry 63	2	Chemistry 100	2
Chemistry 95	0	Chemistry 92	0
Elective	11	Chemistry 96	11
		Elective	11
	15		15

In addition to the above course of study, students will be required to fulfill the regular University requirements in Military and Physical Education.

Students primarily interested in the engineering aspects of chemistry may enroll in the course leading to the degree of Bachelor of Science in Metallurgical Chemistry outlined on page 135 under the announcement of the School of Mines.

PRELEGAL COURSES

Students who purpose to study law should elect their college work in such a way as to comply with the requirements and recommendations of the better law schools. Such requirements or recommendations usually embrace: (1) fundamental courses in English; (2) the study of at least one foreign language, preferably Latin; (3) some work in mathematics or logic, or both; and (4) a considerable number of selected courses in the social sciences. The following recommended course is based on the requirements and recommendations of a few of the more accessible law schools of high standing, and it is believed that it will satisfy the requirements of law schools generally. Students will sometimes find it advantageous to deviate from this course, and in such cases they should consult Professor E. G. Sutherland, who is designated as adviser of prelegal students.

Freshman Year			
First Semester		Second Semester	
	Units		Units
English 1 (Composition and rhetoric)	3	English 2	3
Foreign Language: Latin	3-4	Foreign Language: Latin	3-4
History 1	3	History 2	3
Mathematics, Physics, Chemistry or Biology	3-4	Mathematics, Physics, Chemistry or Biology	3-4
Military and Physical Education	1-2	Military and Physical Education	1-2
Elective	0-2	Elective	0-1

Sophomore Year			
First Semester		Second Semester	
	Units		Units
English 41 or 44 (Literature)	2-3	English 42 or 45 (Literature)	2-3
Foreign Language	3	Foreign Language	3
Political Science 1	3	Economics	3
Natural Science or Mathematics	2-4	Natural Science or Mathematics	2-4
Military and Physical Education	1-1½	Military and Physical Education	1-1½
Economics	3	Political Science 2	3
Junior Year			
Constitutional History			
Economics, Psychology			
Political Science			

Certain law schools admit students upon the completion of three years of college work. The University will confer the degree of Bachelor of Arts upon any student of high rank who, after completing three years of approved work in this University, shall enter a law school of approved standing and shall complete worthily one year's work in such law school. (A student of high rank is one who stands above the average of his class.) In order to receive the degree in this way the student must, at the end of his first year in the law school, present a signed testimonial from the Dean of the Law School to the Dean of the College of Arts and Science, such testimonial to include a statement of courses taken, grades achieved, and a recommendation that the degree be granted.

PREMEDICAL COURSES

The requirements for admission to Class A medical colleges vary from a minimum of two years of standard college work to the possession of a Bachelor's Degree. Students contemplating studying medicine should communicate early in their undergraduate course with the Dean of the particular medical college they may wish to enter in order to learn the exact entrance requirements at the time they expect to enter. Practically all medical colleges prescribe the same minimum of subject matter which includes general zoology, vertebrate anatomy, embryology, general inorganic chemistry, qualitative analysis, organic chemistry, general physics, and a reading knowledge of French or German. Quantitative analysis is also required by some and advised by others.

PREMEDICAL COURSE

To permit the conclusion of all the premedical requirements and to satisfy the University requirements for the A.B. Degree, the following arrangement of the course of study will be found a desirable one.

Freshman Year

First Semester		Second Semester	
Units	Units	Units	Units
English 1.....	3	English 2.....	3
French or German.....	3	French or German.....	3
General Chemistry.....	3 or 4	General Chemistry.....	3 or 4
Botany 1.....	3 or 4	Zoology 2.....	3 or 4
Military and Physical Education.....	1-2	Hygiene 2.....	1
Elective.....	1-3	Military and Physical Education.....	1-2
		Elective.....	0-2

Sophomore Year

First Semester		Second Semester	
Units	Units	Units	Units
English 41.....	2	English 42.....	2
French or German.....	3	French or German.....	3
Quantitative Analysis or Organic Chemistry.....	5	Quantitative Analysis or Organic Chemistry.....	5
Comparative Anatomy.....	5	Embryology.....	5
Military and Physical Education.....	1-11	Military and Physical Education.....	1-11

Junior Year

First Semester		Second Semester	
Units	Units	Units	Units
Psychology or other Social Science.....	3	Psychology or other Social Science.....	3
General Physics.....	4	General Physics.....	4
Chemistry or Biology.....	4	Chemistry or Biology.....	4
History 1.....	3	History 2.....	3
Elective.....	2	Elective.....	2

The University will confer the degree of Bachelor of Arts upon any student of high rank who, after completing three years of approved work in this University, shall enter a medical school rated Class A by the American Medical Association, and shall complete worthily one year's work in such medical school. In order to receive the degree in this way, the student must, at the end of his first year in the medical school, present a signed testimonial from the Dean of the Medical School to the Dean of the College of Arts and Science, such testimonial to include a statement of courses taken, grades achieved, and a recommendation that the degree be granted.

For further advice relative to this work, the student is referred to Professor Frandsen, who is designated adviser of premedical students.

PRENURSING COURSE

Beginning with the University year 1923-1924, an affiliation with the Stanford School of Nursing was established similar to that existing within Stanford University. The Prenursing curriculum is designed primarily for those who wish to prepare themselves for administrative, teaching, social service or public health work. It consists of three years' work at the University of Nevada and two years at the Stanford School of Nursing, Lane Hospital, San Francisco, the Degree of Bachelor of Arts being conferred by the

University of Nevada and the Degree of Graduate Nurse by the Stanford School of Nursing at the end of five years. The completion of 98 semester units with 50 per cent of the grades above a 3 are necessary before the student may enter the School of Nursing. The following course is advised for those who wish to satisfy these requirements:

Freshman Year

First Semester		Second Semester	
Units	Units	Units	Units
Botany 1.....	4	Zoology 2.....	4
English 1.....	3	English 2.....	3
History 1.....	3	History 2.....	3
German or French.....	3	German or French.....	3
Physical Education.....	1	Hygiene 2.....	1
Elective.....	2	Physical Education.....	1
		Elective.....	1

Sophomore Year

First Semester		Second Semester	
Units	Units	Units	Units
Physiology (Hygiene 7).....	3	Physiology (Hygiene 8).....	3
English 41.....	2	English 42.....	2
Economics 1.....	3	Economics 2.....	3
French or German.....	3	French or German.....	3
Chemistry 5.....	3	Chemistry 6.....	3
Physical Education.....	1	Physical Education.....	1
Elective.....	2	Elective.....	2

Junior Year

First Semester		Second Semester	
Units	Units	Units	Units
Zoology 9.....	4	Zoology 64.....	4
Bacteriology 51.....	4	Zoology 66.....	4
Elective.....	8	Elective.....	8

The fourth and fifth years consist of a course of instruction in Nursing, Theory and Practice in Lane and Stanford University Hospitals, in residence at Stanford School of Nursing.

TEACHERS' DIPLOMAS

For the requirements for a Teacher's Diploma see School of Education pages 129-131.

THE MASTER'S DEGREE IN ARTS AND SCIENCE

For requirements for the Master's Degree, see pages 112-115.

THE SCHOOL OF EDUCATION AND THE NEVADA
STATE NORMAL SCHOOL

FACULTY

- WALTER E. CLARK, Ph.D., LL.D., President of the University.
JOHN W. HALL, M.A., Dean of the School of Education; Professor
of Education.
REUBEN CYRIL THOMPSON, M.A., Professor of Philosophy.
ALBERT ELLSWORTH HILL, A.B., Professor of English.
JAMES REED YOUNG, Ph.D., Professor of Psychology.
SARAH LOUISE LEWIS, M.A., Professor of Home Economics.
FRED W. TRANER, M.A., Professor of Education.
THEODORE H. POST, A.M., Professor and Director of Music.
KATHERINE LEWERS, Associate Professor of Freehand Drawing and
Art.
ELSIE SAMETH, M.S., Associate Professor of Physical Education.
MARGARET ELIZABETH MACK, M.A., Associate Professor of Biology.
SILAS CALVIN FEEMSTER, A.M., Associate Professor of History and
Political Science.
EDITH M. RUEBSAM, Assistant Professor of Education.
B. D. BILLINGHURST, A.B., LL.D., Lecturer in Education.
RUTH A. TALLEY, B.S., Lecturer in Vocational Home Economics.
CORNELIA WILLIAMSON, Secretary to the Dean.

COOPERATING TEACHERS

In the Reno High School—

- AGNES BELL, A.B., English.
EDITH HARRIS, A.B., English.
LOUISE L. JOHNSON, A.B., English.
CLARA LINDSEY, B.S., Biology.
MRS. ANNA LOOMIS, A.B., Spanish.
EFFIE MACK, M.A., History.
HARRY K. McCracken, B.S., Mathematics.
MARION NICOLAI, A.B., Physical Education.
HALLIE ORGAN, A.B., Commercial.
IRMA SETTELMAYER, A.B., English.
HELENA SHADE, A.B., English.
ALWINE SIELAFF, A.B., Mathematics.
EDWIN STRENG, B.S., Chemistry.
IVA WELCH, B.S., Home Economics.

In the Sparks High School—

- ALICE E. DAVIS, B.S., Home Economics.

In the Reno Junior High School—

- RUTH BRIGGS, A.B., English.
DAISY B. BRITT, A.B., English.
GENEVIEVE CHATFIELD, A.B., Mathematics.
ARVELA COFFIN, A.B., French.
LULU HAWKINS, A.B., Art.
JEAN JACKSON, History.

THE SCHOOL OF EDUCATION AND THE
NEVADA STATE NORMAL SCHOOL

In the Reno Junior High School—Continued

A. W. LAWRENCE, B.S., Manual Training.
 J. L. LIPPINCOTT, A.B., General Science.
 GEORGIA MACNAIR, A.B., History.
 LULU McLAUGHLIN, A.B., Spanish.
 MRS. C. H. LUKE, A.B., History.
 BEATRICE MORRIS, A.B., History.
 ESTELLE PROUTY, M.A., History.
 HALLIE RICE, Ph.D., History.
 GLADYS SMITH, B.S., Home Economics.
 RUTH M. STEWART, A.B., History.
 CLAIRE WILLIAMS, A.B., English.

In the Reno Elementary Schools—

IRIS CRAWFORD, First Grade.
 ESTHER CREMP, Second Grade.
 ALPHONSINE LIOTARD, Third Grade.
 ELIZABETH McCORMACK, A.B., First Grade.
 ELEANOR MILLER, Fifth Grade.
 OLIVIA E. TREATOR, Fifth Grade.
 GRACE WARNER, Sixth Grade.

The Nevada State Normal School was established as an integral part of the University of Nevada by an Act of the Legislature approved February 7, 1887. The first session was in the academic year 1887-1888. In the fall of 1920 it took up its work in the finely equipped new Education Building. The connection of the Normal School with the other departments of the University gives it certain advantages. Its students enjoy the same rights and privileges as those enrolled in any other school or college of the University. Their association with those students who are pursuing four-year courses gives them greater breadth of view and higher academic ideals. Its students and graduates, if they satisfy the requirements for admission to any other school or college of the University, may become candidates for the University degrees. Subject only to the provision that they meet the specific requirements of the college which they enter, they are given full credit in all of the Colleges of the University for the work they have done in the Normal School.

AIM

The aim of the Normal School is to give adequate preparation and training to those students of the University who wish to teach in the public schools of the State. To achieve this purpose, thoroughgoing courses in the theory and practice of teaching and in academic subjects are offered for those who are preparing to teach in the elementary schools. The School of Education will recommend no student or graduate

for any teaching position who is seriously deficient in the subject matter to be taught.

ADMISSION REQUIREMENTS

For admission requirements, entrance subjects, and the number of units belonging to each, see pages 95-104.

TEACHERS' ELEMENTARY CERTIFICATE

FIRST-GRADE CERTIFICATES

Students who satisfy the admission requirements and complete both years of the curriculum outlined following will be granted diplomas entitling them to first-grade elementary certificates from the State Board of Education. These give the holders the right to teach, without examination, for five years in any of the elementary schools of the State. On evidence of successful teaching for not less than forty-five months, the State Board of Education will grant the holders first-grade elementary certificates valid for life.

SECOND-GRADE CERTIFICATES

Students who, for financial or other reasons, cannot continue their studies for two years, may, upon satisfying the requirements for admission, and completing one year of the two-year course, be granted second-grade elementary certificates by the State Board of Education. These give the holders the right to teach, without examination, for three years in any of the elementary schools of the State. At the expiration of the time for which they are valid, these certificates cannot be renewed. If holders wish to continue teaching, they must either complete the requirements of the two-year course of study, or pass the state examination for a first-grade certificate.

COURSE OF STUDY

	FIRST YEAR	First Semester	Second Semester
Education 20 (Principles of Teaching).....	3	3	3
Education 31 (The Teaching of Arithmetic).....	2	2	2
Education 34 (The Teaching of English).....	3	3	3
Education 37 (The Teaching of Geography).....	2	2	2
Education 23 (Problems in Rural Education).....	2	2	2
Education 25 (Observation of Teaching).....	1	1	1
Education 28 (Supervised Teaching and Conferences).....	5	5	5
Nature Study 1-2.....	2	2	2
Music 1-2.....	1	1	1
Art 1-2.....	1	1	1
Physical Education 1-2.....	1	1	1
Home Economics 9 (General Home Economics).....	3	3	3
Political Science 79-80.....	1	1	1
Pemanship.....	1	1	1
Totals.....	16½	16½	16½

SECOND YEAR	First Semester	Second Semester
Psychology 5 (General Psychology).....	3	2
Psychology 8 (Psychology of Childhood).....	3	2
Education 35 (The Teaching of English).....	3	2
Education 42 (The Teaching of History and Civics).....	5	1
Education 29 (Supervised Teaching and Conferences).....	2	1
Education 24 (School Management, Law, and Hygiene).....	2	1
Music 5.....	1	1
Art 8.....	1	1
Physical Education 10.....	3	3
English 1-2 (Composition and Rhetoric).....	2	2
Philosophy 28 (Social Ethics).....	2	2
Hygiene 4.....	1	1
Education 41 (Kindergarten Methods).....	1	1
Education 48 (Educational Tests and Measurements).....	1	1
Totals.....	16	16

Graduates of the Nevada County Normal Training Schools are admitted to the second year of the course, and can ordinarily complete their work in one year.

SCHOOL OF EDUCATION

The School of Education is included as a division of the College of Arts and Science, but with its own Dean, and direct affiliations with the other colleges in cooperative work in the training of teachers. It offers a liberal and professional course of study of four years to prospective secondary-school teachers and to those students looking forward to supervisory and administrative positions in the schools of Nevada. At the end of this time successful candidates are granted a Bachelor's Degree and a teacher's diploma, the latter giving title to a teacher's first-grade high school certificate. On evidence later of at least forty-five months of successful teaching, this certificate is exchangeable by the State Board of Education for a life diploma.

THE HIGH-SCHOOL TEACHERS' CERTIFICATE

The high-school teachers' certificate is granted by the State Board of Education to those graduates of the four-year course who have met the requirements for a minor in Education. This minor consists of the following prescribed courses:

In the regular academic departments 18 hours of professional work are required, distributed as follows: Psychology 5 (3 hours), Psychology 10 (2 hours), Education 60 (3 hours), Education 63 (1 hour), Education 71 (3 hours), Education 75 (2 hours), Education 76 (2 hours), and two additional credits to be arranged.

NOTICE—Unless candidates have a major or a minor in at least two high school subjects they will have great difficulty in making satisfactory arrangements for Supervised Teaching and in securing a high school position.

For teachers of the following subjects, special certificates are required: Art, Commercial Subjects, Home Economics, Languages, Manual Training, Music, and other vocational subjects.

In addition to the work in Education:

Graduation from the School of Home Economics is necessary for the teacher's certificate in Home Economics;

Graduation from the College of Agriculture is necessary for the teacher's certificate in Agriculture.

At least a minor in any of the other special subjects is necessary for a teacher's certificate in that subject, except Commercial subjects, for which the academic requirement follows:

(1) Eighteen credits in the department, namely, Economics 1-2, Business Administration 43-44, and Business Administration 68, and additional three units chosen according to the needs of the student. Business Administration 53-54 and Business Administration 41-42 are recommended.

(2) Proficiency in stenography and typewriting, to be secured outside the University and before the end of the Junior year. Students should consult the instructor in Business Administration about this requirement at some time during their Sophomore year.

SUPERVISED TEACHING

Arrangements have been made with the Reno and Sparks public schools whereby prospective teachers may have adequate teaching under normal conditions. Teachers in the public schools and the School of Education will cooperate in the supervision of this work.

IMPORTANT

All candidates for the high-school teacher's diploma should confer with the Dean of the School of Education at the beginning of the Sophomore year, as it is highly desirable that they begin their professional studies at that time. Failure to do this will limit the opportunity for choice in the advanced academic courses.

THE COLLEGE OF ENGINEERING

1. THE MACKAY SCHOOL OF MINES
2. THE SCHOOL OF MECHANICAL ENGINEERING
3. THE SCHOOL OF ELECTRICAL ENGINEERING
4. THE SCHOOL OF CIVIL ENGINEERING
5. THE ENGINEERING EXPERIMENT STATION

THE COLLEGE OF ENGINEERING

FACULTY

- WALTER E. CLARK, Ph.D., LL.D., President of the University.
 MAXWELL ADAMS, Ph.D., Vice-President and Professor of Chemistry.
 FREDERICK H. SIBLEY, M.E., Dean of the College of Engineering;
 Professor of Mechanical Engineering.
 JOHN ALLEN FULTON, E.M., Director Mackay School of Mines and
 Professor of Mining.
 PETER FRANDSEN, A.M., LL.D., Professor of Biology.
 HERBERT WYNFORD HILL, Ph.D., Professor of English.
 HORACE PRENTISS BOARDMAN, C.E., Professor of Civil Engineering.
 LEON WILSON HARTMAN, Ph.D., Professor of Physics.
 CHARLES HASEMAN, Ph.D., Professor of Mathematics and Mechanics.
 J CLAUDE JONES, Ph.D., Professor of Geology and Mineralogy.
 WALTER S. PALMER, E.M., Professor of Metallurgy.
 ALBERT ELLSWORTH HILL, A.B., Professor of English.
 Colonel JOHN PAUL RYAN, Professor of Military Science and Tactics.
 STANLEY G. PALMER, M.E., Professor of Electrical Engineering.
 GEORGE WALLACE SEARS, Ph.D., Professor of Chemistry.
 FREDERICK L. BIXBY, C.E., Professor of Civil Engineering.
 JAY ARNOLD CARPENTER, E.M., Professor of Mining.
 KATHERINE LEWERS, Associate Professor of Freehand Drawing.
 KATHARINE RIEGELHUTH, A.M., Associate Professor of English.
 GILBERT BRUCE BLAIR, A.M., Associate Professor of Physics.
 SILAS CALVIN FEEMSTER, A.M., Associate Professor of History and
 Political Science.
 WILLIAM M. HOSKINS, Ph.D., Associate Professor of Chemistry.
 CLARENCE H. KENT, B.S., Associate Professor of Mechanical Engi-
 neering.
 JOHN EDWARD MARTIE, B.S., Associate Professor of Physical Educa-
 tion for Men.
 EDWARD G. SUTHERLAND,¹ A.B., Associate Professor of Economics,
 Business and Sociology.
 ALFRED LESLIE HIGGINBOTHAM, M.A., Assistant Professor of English.
 Captain LUTHER N. JOHNSON, Assistant Professor of Military
 Science and Tactics.
 ROLLIN H. MCCARTHY, M.M.E., Assistant Professor of Mechanical
 Engineering.
 SIGMUND W. LEIFSON, Ph.D., Assistant Professor of Physics.
 CHARLES L. SEARCY, M.A., Assistant Professor of Mathematics.
 OSCAR T. ROCKLUND, Instructor in Shop Practice.
 WILLIAM R. BLACKLER, M.A., Instructor in Economics, Business and
 Sociology.
 LAWRENCE T. SHAW, B.S.A., Instructor in Physical Education for
 Men.
 BERTRAND F. COUCH, Instructor in Mine Accounting.
 WILLIAM I. SMYTH, B.S., Instructor in Metallurgy.

¹Absent on leave 1927-1928.

ROGER WILLIAMS TRUESDAIL, Ph.D., Instructor in Chemistry.
 EDWIN J. DUERR, A.B., Instructor in English.
 OLIVER RUDOLPH GRAVE, M.S., Instructor in Geology.
 OTIS J. MITHOUG, B.S., Instructor in Electrical Engineering.
 PAUL A. HARWOOD, B.A., Instructor in English.

AIM

The aim of the College of Engineering is to give young men a knowledge of those subjects which form the basis of the Mining, Mechanical, Electrical, and Civil Engineering professions. The technical courses of study are arranged and directed with the purpose of preparing students not only for immediate usefulness but also for future professional growth. The work is in the form of both lectures and recitations, supplemented by exercises in the drafting room, field, laboratory, and shop.

EQUIPMENT

For a general description of the equipment of the College of Engineering, see Mackay School of Mines, Mechanical Building, Electrical Building, Chemistry Building, Laboratories for Geology and Mineralogy, Laboratories of the Mining Department, Mining and Geological Museum, and the Chemical Laboratories, in the earlier part of this catalogue.

ADMISSION REQUIREMENTS

For admission requirements, entrance subjects, and the number of credits belonging to each, see pages 95-104.

REQUIREMENTS FOR A BACCALAUREATE DEGREE IN ENGINEERING

The Degree of Bachelor of Science in (a) Mining Engineering, Metallurgical Engineering, or Geological Engineering, (b) Mechanical Engineering, (c) Electrical Engineering, and (d) Civil Engineering is conferred upon students who have satisfactorily completed the full course in the Schools of (a) Mines, (b) Mechanical Engineering, (c) Electrical Engineering, and (d) Civil Engineering, aggregating 150 semester units for the Class of 1928, 148 semester units for the Class of 1929, 146 semester units for the Class of 1930, and 144 semester units for the Class of 1931, and thereafter.

For students taking advanced military work, where sufficient elective credits (10) are not provided, arrangement will be made by substitution or other adjustment.

The state law of Nevada requires that all candidates

for a degree must study, during one University year, the Constitutions of the United States and of the State of Nevada.

UNIFORM FRESHMAN COURSE
COMMON TO ALL FOUR SCHOOLS OF ENGINEERING

<i>Freshman Year—First Semester</i>		LAB.	LEC.
English 1.....	Composition and Rhetoric.....	1	3
Chemistry 5.....	General Inorganic Chemistry.....	1	2
Mathematics 11.....	Advanced Algebra.....	1	2
Mathematics 13.....	Plane Trigonometry.....	1	3
Mechanical Engineering 2.....	Elementary Mechanical Drawing.....	3	1
*Mechanical Engineering 3.....	Freehand Drawing.....	1	1
General Engineering 1.....	Orientation.....	1	1
Military 1.....	Basic Course.....	1	1
Physical Education 1.....	Developmental Exercises.....	1	1

17½

<i>Freshman Year—Second Semester</i>		LAB.	LEC.
English 2.....	Composition and Rhetoric.....	1	3
Chemistry 6.....	General Inorganic Chemistry.....	1	2
Mathematics 14.....	Analytic Geometry.....	1	3
Mechanical Engineering 6.....	Descriptive Geometry.....	2	1
Geology 10.....	Engineering Geology.....	1	2
Hygiene 2.....	Personal Hygiene.....	1	1
Military 2.....	Basic Course.....	1	1
Physical Education 2.....	Developmental Exercises.....	1	1

17½

SCHOOL OF MINES

Subject to the approval of the Dean of the College of Engineering and the Director of the Mackay School of Mines, substitutions of courses may be made in the following School of Mines curriculum. This makes it possible to arrange satisfactory courses in

Mining Engineering
 Geological Engineering
 Metallurgical Engineering
 Metallurgical Chemistry

and in the different phases of the separate branches such as design work, operating work, sales work, etc.

Summer Work

Mining 5.....	Practical Mine Work.....	Four Weeks
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Sophomore Year—First Semester

		LAB.	LEC.
Chemistry 7.....	Principles of Inorganic Chemistry and Qualitative Analysis.....	2	1
Mathematics 25.....	Differential Calculus.....	1	3
Physics 1a.....	General Physics.....	1	3
Physics 1b.....	General Physics.....	1	3
Mineralogy 1.....	Determinative Mineralogy.....	2	1
Chemistry 9.....	Quantitative Analysis.....	2	1
Geology 11.....	Historical Geology.....	1	3
Military 3.....	Basic Course.....	1	1
Physical Education 3.....	.....	1	1

7½ 11

18½

Courses marked thus () may be substituted by other courses when approved by the head of the school and the Dean of the college. Such substituted courses, however, must form part of a systematic course of training.

<i>Sophomore Year—Second Semester</i>		LAB. LEC.
Chemistry 10.....	Volume Analysis	3 ..
Mathematics 26.....	Integral Calculus	3 ..
Physics 2a.....	General Physics	3 ..
Physics 2b.....	General Physics	1 ..
Metallurgy 55.....	General Metallurgy	3 ..
Mineralogy 2.....	Blowpipe Analysis	2 ..
Mineralogy 3.....	Descriptive Mineralogy	2 ..
Military 4.....	Basic Course	1 ..
Physical Education 4.....	.....	1 ..
		6½ 12
		18½

<i>Junior Year—First Semester</i>		LAB. LEC.
Mining 51.....	Excavation	3 ..
Metallurgy 51.....	Assaying	3 ..
Mathematics 55A.....	Analytic Mechanics	3 ..
Geology 60.....	Economic Geology Nonmetallics.....	3 ..
Civil Engineering 51 and 52.....	Surveying	2 2
Geology 51.....	Petrology	1 1
		6 12
		18

<i>Junior Year—Second Semester</i>		LAB. LEC.
Mining 52.....	Mine Plant	3 ..
Metallurgy 55.....	Ore Dressing	2 2
Geology 61.....	Economic Geology of Metals.....	3 ..
Civil Engineering 53 and 54.....	Surveying	2 2
Civil Engineering 74.....	Strength of Materials.....	3 ..
Civil Engineering 72.....	Testing Materials	1 ..
		5 13
		18

<i>Summer Work</i>		LAB. LEC.
Civil Engineering 58.....	Summer Surveying.....	Four Weeks

<i>Senior Year—First Semester</i>		LAB. LEC.
Economics 65.....	Introduction to Economics and Business Administration	3 ..
Mining 61.....	Mining Methods	3 ..
Metallurgy 70.....	Metallurgy of gold and silver	2 1
Metallurgy 60.....	Metallurgy of copper, lead and zinc.....	3 ..
Political Science 79.....	.....	1 ..
Project in Mining, Metallurgy or Geology.....	.....	2 ..
Elective in Mining, Metallurgy or Geology.....	.....	4 ..
		4 14½
		18½

<i>Senior Year—Second Semester</i>		LAB. LEC.
Mining 73.....	Mineral Industry Economics.....	3 ..
Civil Engineering 90.....	Hydraulics	3 ..
Geology 52.....	Petrography	1 ..
or	.....	.....
Metallurgy 56.....	Metallography	2 1
Mining 72.....	Mine Administration	3 ..
Political Science 80.....	.....	1 ..
Project in Mining, Metallurgy or Geology.....	.....	2 ..
Elective in Mining, Metallurgy or Geology.....	.....	3 ..
		4 13½
		17½

SCHOOL OF MECHANICAL ENGINEERING

Freshman Year—Both Semesters
Uniform course for all Engineering Schools. See page 135.

<i>Sophomore Year—First Semester</i>		LAB. LEC.
Mechanic Arts 1.....	Wood Work	1 ..
Mechanic Arts 2.....	Forging	2 ..
Physics 8.....	General Physics for Engineers.....	4 ..
Physics 11.....	Physical Measurements	2 ..
Mathematics 25.....	Differential Calculus	3 ..
Military 3.....	Basic Course, second year.....	1 ..
Physical Education 3.....	Advanced Exercises	1 ..
Elective.....	.....	2 2
Civil Engineering 51-52.....	Elementary Surveying and Plotting.....	2 2
		18½

<i>Sophomore Year—Second Semester</i>		LAB. LEC.
Mechanic Arts 3.....	Machine Shop	2 ..
Physics 9.....	General Physics for Engineers.....	4 ..
Physics 12.....	Physical Measurements	2 ..
Mathematics 26.....	Integral Calculus	3 ..
Mathematics 32.....	Practical Applications	2 ..
Metallurgy 54.....	Metallurgy of Iron, Steel and Alloys.....	2 ..
Military 4.....	Basic Course, second year.....	1 ..
Physical Education 4.....	Advanced Exercises	1 ..
Elective.....	.....	1 ..
		17½

<i>Junior Year—First Semester</i>		LAB. LEC.
Electrical Engineering 51.....	Direct Current Machinery.....	3 ..
Electrical Engineering 61.....	Electrical Engineering Laboratory.....	1 1
Mechanical Engineering 51.....	Kinematics	1 2
Mechanical Engineering 54.....	Engines and Boilers.....	3 ..
Mathematics 55.....	Analytic Mechanics	3 ..
Mechanic Arts 5.....	Machine Shop	1 2
*Physics 10.....	General Physics for Engineers.....	2 ..
*Physics 13.....	Physical Measurements	2 ..
		18

<i>Junior Year—Second Semester</i>		LAB. LEC.
Electrical Engineering 72.....	Alternating Current Machinery.....	3 ..
*Electrical Engineering 62.....	Electrical Engineering Laboratory.....	1 1
Civil Engineering 74.....	Strength of Materials.....	1 3
Civil Engineering 72.....	Testing Materials	1 2
Civil Engineering 90.....	Hydraulics	1 3
Mechanical Engineering 64.....	Mechanical Laboratory	1 1
Mathematics 56.....	Analytic Mechanics	2 ..
Mechanic Arts 6.....	Pattern Making	1 ..
Mechanic Arts 4.....	Foundry	1 ..
		18

<i>Senior Year—First Semester</i>		LAB. LEC.
Mechanical Engineering 53.....	Machine Design	3 ..
Mechanical Engineering 55.....	Thermodynamics	2 ..
Mechanical Engineering 65.....	Mechanical Laboratory	2 1
*Mechanical Engineering 75.....	Power Plant Engineering.....	1 2
*Civil Engineering 75.....	Theory of Structures.....	3 ..
*Economics 65.....	Introduction to Economics and Business.....	3 ..
Political Science 79.....	Constitutions of United States and Nevada.....	1 ..
		18½

*See footnote p. 135

<i>Senior Year—Second Semester</i>		LAB.	LEC.
Mechanical Engineering 56	Thermodynamics	3	3
*Mechanical Engineering 58	Mechanics of Heat Engines	3	3
*Mechanical Engineering 66	Mechanical Laboratory	2	1
*Economics 66	Financial and Business Organization	3	3
*Psychology 5	General Psychology	3	3
Political Science 80	Constitutions of United States and Nevada	1	1
*Mechanical Engineering 80	Thesis	3	3
			18½

SCHOOL OF ELECTRICAL ENGINEERING

Freshman Year—Both Semesters

Uniform course for all Engineering Schools. See page 135.

<i>Sophomore Year—First Semester</i>		LAB.	LEC.
Physics 8	General Physics for Engineers	4	4
Physics 11	Physical Measurements	2	2
Mathematics 25	Differential Calculus	3	3
Mechanic Arts 2	Forging	1	1
*Civil Engineering 51-52	Elementary Surveying and Plotting	2	2
Mechanic Arts 3	Machine Shop	2	2
Military 3	Basic Course, second year	1	1
Physical Education 3	Advanced Exercises	1	1
Elective		1	1
			18½

Sophomore Year—Second Semester

Physics 9	General Physics for Engineers	4	4
Physics 12	Physical Measurements	2	2
Mathematics 26	Integral Calculus	3	3
Mathematics 32	Practical Applications	2	2
*Metallurgy 54	Metallurgy of Iron, Steel and Alloys	2	2
*Mechanic Arts 5	Machine Shop	2	2
Military 4	Basic Course, second year	1	1
Physical Education 4	Advanced Exercises	1	1
Elective		1	1
			17½

Junior Year—First Semester

Electrical Engineering 51	Direct Current Machinery	3	3
Electrical Engineering 61	Electrical Engineering Laboratory	1	1
Mechanical Engineering 54	Engines and Boilers	3	3
*Mechanical Engineering 51	Kinematics	1	2
Mathematics 55	Analytic Mechanics	3	3
Physics 10	General Physics for Engineers	2	2
Physics 13	Physical Measurements	2	2
			18

Junior Year—Second Semester

Electrical Engineering 52	Alternating Current Machinery	5	5
Electrical Engineering 62	Electrical Engineering Laboratory	1	1
Mechanical Engineering 64	Mechanical Engineering Laboratory	1	1
Civil Engineering 74	Strength of Materials	3	3
Civil Engineering 72	Testing Materials Laboratory	1	1
*Civil Engineering 90	Hydraulics	3	3
Mathematics 56	Analytic Mechanics	2	2
			18

Senior Year—First Semester

Electrical Engineering 53	Advanced Alternating Currents	3	3
*Electrical Engineering 55	Electrical Problems	1	1
Electrical Engineering 63	Electrical Engineering Laboratory	2	1
Mechanical Engineering 55	Thermodynamics	3	3
*Mechanical Engineering 65	Mechanical Engineering Laboratory	2	1
*Economics 65	Introduction to Economics and Business	3	3
Political Science 79	Constitutions of United States and Nevada	1	1
*Electrical Engineering 67		2	2
			18½

*See footnote p. 135.

Senior Year—Second Semester

Electrical Engineering 58	Electrical Design	3	3
*Electrical Engineering 56	Electrical Problems	1	1
Electrical Engineering 64	Electrical Engineering Laboratory	2	1
Physics 57	Electrical Measurements	2	2
*Mechanical Engineering 56	Thermodynamics	3	3
*Economics 66	Industrial and Financial Organization	3	3
Political Science 80	Constitutions of United States and Nevada	1	1
*Electrical Engineering 66	Electrical Applications	3	3
			18½

SCHOOL OF CIVIL ENGINEERING

Freshman Year—Both Semesters

Uniform course for all Engineering Schools. See page 135.

<i>Sophomore Year—First Semester</i>		LAB.	LEC.
Mathematics 25	Differential Calculus	3	3
Physics 1a-1b	General Physics	1	3
Civil Engineering 11	Engineering Literature	1	1
Civil Engineering 51-52	Elementary Surveying	2	2
*Psychology 5	General Psychology	3	3
*Geology 11	Historical Geology	2	2
Military 3	Basic Course	1	1
Physical Education 3	Advanced Exercises	1	1
			18½

Sophomore Year—Second Semester

Mathematics 26	Integral Calculus	3	3
Mathematics 32	Practical Applications	2	2
Physics 2a-2b	General Physics	1	3
Civil Engineering 53-54	Advanced Surveying	2	2
Civil Engineering 69	Graphic Statics	1	1
Military 4	Basic Course	1	1
Physical Education 4	Advanced Exercises	1	1
Elective		1	1
			18½

Junior Year—First Semester

Mathematics 55	Analytic Mechanics	3	3
Civil Engineering 63-64	Railroad Engineering	2	3
Civil Engineering 75	Structural Analysis	3	3
Civil Engineering 20	Technical Report	1	1
*Mechanical Engineering 54	Engines and Boilers	3	3
Electrical Engineering 21	Elements of Electrical Engineering	1	2
Political Science 79	Constitutions of United States and Nevada	1	1
			18½

Junior Year—Second Semester

Mathematics 56	Analytic Mechanics	2	2
*Civil Engineering 55	Foundations and Substructures	1	2
Civil Engineering 72	Testing of Materials	1	1
Civil Engineering 74	Mechanics of Materials	3	3
Civil Engineering 76	Structural Analysis	2	2
Civil Engineering 90	Hydraulics	3	3
Political Science 80	Constitutions of United States and Nevada	1	1
Elective		3	3
			17½

CIVIL ENGINEERING 58. *Summer Surveying*. Required of all Civil Engineering students who cannot furnish a satisfactory substitution of practical experience on survey work, including considerable instrument work.

*See footnote p. 135.

*Civil Engineering 55 and 67 given alternate years. See pages 164 and 165.

<i>Senior Year—First Semester</i>		LAB.	LEC.
¹ Civil Engineering 67.....	Engineering Economics	2	2
Civil Engineering 77.....	Structural Design	3	2
Civil Engineering 85.....	Reinforced Concrete	2	2
Civil Engineering 94.....	Irrigation Engineering	3	3
*Mineralogy 1.....	Determinative Mineralogy	2	3
Economics 65.....	Introduction to Economics	3	3
Elective .....	.....	1	2
		18	
<i>Senior Year—Second Semester</i>			
Civil Engineering 78.....	Structural Design	2	2
Civil Engineering 86.....	Reinforced Concrete	2	1
Civil Engineering 91.....	Sanitary Engineering	3	3
Metallurgy 54.....	Metallurgy of Iron, Steel.....	2	2
Civil Engineering 99.....	Engineering Problems		
or			
Civil Engineering 100.....	Thesis	2	2
Economics 66.....	Industrial Organization	3	3
Elective.....	.....	3	3
		18	

*See footnote p. 135.

*See footnote p. 139.

THE ENGINEERING EXPERIMENT STATION

WALTER E. CLARK, Ph.D., LL.D., President of the University.
 HORACE P. BOARDMAN, C.E., Director, Chairman Executive Committee.
 FREDERICK H. SIBLEY, M.E., Member Executive Committee.
 STANLEY G. PALMER, M.E., Member Executive Committee.

The Engineering Experiment Station was established by the Board of Regents, November 1, 1921.

The objects are to cooperate with engineering experiment stations in other institutions and to conduct useful investigations along engineering lines and publish bulletins from time to time whenever the results justify such publication.

THE COLLEGE OF AGRICULTURE

1. THE SCHOOL OF AGRICULTURE
2. THE SCHOOL OF HOME ECONOMICS
3. DAIRY SHORT COURSE

THE COLLEGE OF AGRICULTURE

FACULTY

- WALTER E. CLARK, Ph.D., LL.D., President of the University.
 MAXWELL ADAMS, Ph.D., Vice-President, Professor of Chemistry.
 ROBERT STEWART, Ph.D., Dean of the College of Agriculture; Professor of Agronomy.
 PETER FRANDSEN, A.M., LL.D., Professor of Biology.
 HORACE PRENTISS BOARDMAN, C.E., Professor of Civil Engineering.
 LEON WILSON HARTMAN, Ph.D., Professor of Physics.
 CHARLES HASEMAN, Ph.D., Professor of Mathematics and Mechanics.
 FREDERICK WESTON WILSON, M.S., Professor of Animal Husbandry.
 ALBERT ELLSWORTH HILL, A.B., Professor of English.
 Colonel JOHN PAUL RYAN, Professor of Military Science and Tactics.
 STANLEY GUSTAVUS PALMER, M.E., Professor of Electrical Engineering.
 VERNER E. SCOTT, B.S., Professor of Dairying.
 SARAH L. LEWIS, M.A., Professor of Home Economics.
 GEORGE WALLACE SEARS, Ph.D., Professor of Chemistry.
 PHILIP A. LEHENBAUER, Ph.D., Professor of Biology.
 FREDERICK L. BIEBY, C.E., Professor of Civil Engineering.
 KATHERINE LEWERS, Associate Professor of Freehand Drawing.
 KATHARINE RIEGELHUTH, A.M., Associate Professor of English.
 ELSIE SAMETH, M.S., Associate Professor of Physical Education for Women.
 MARGARET ELIZABETH MACK, A.M., Associate Professor of Biology.
 SILAS CALVIN FEEMSTER, A.M., Associate Professor of History and Political Science.
 GILBERT BRUCE BLAIR, A.M., Associate Professor of Physics.
 WILLIAM M. HOSKINS, Ph.D., Associate Professor of Chemistry.
 CLARENCE H. KENT, B.S., Associate Professor of Mechanical Engineering.
 JOHN EDWARD MARTIE, B.S., Associate Professor of Physical Education for Men.
 EDWARD G. SUTHERLAND,¹ A.B., Associate Professor of Economics, Business and Sociology.
 JESSIE P. POPE, M.S., Assistant Professor of Home Economics.
 LOUISE KERR HAMMOND, B.S., Assistant Professor of Home Economics.
 ALFRED LESLIE HIGGINBOTHAM, M.A., Assistant Professor of English.
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 CHARLES L. SEARCY, M.A., Assistant Professor of Mathematics.
 SIGMUND W. LEIFSON, Ph.D., Assistant Professor of Physics.
 CHARLES LeROY BROWN, M.A., Instructor in Biology.
 VERREL A. WEBER, B.S., Instructor in Physical Education for Women.
 OSCAR T. ROCKLUND, Instructor in Shop Practice.
 WILLIAM R. BLACKLER, M.A., Instructor in Economics, Business and Sociology.

¹Absent on leave 1927-1928

EDWIN DUERR, B.A., Instructor in English.
DONALD ELLIOT ANTHONY, M.A., Instructor in Economics, Business
and Sociology.
AIMEE TERRY, Secretary to the Dean.

AIM

The aim of the School of Agriculture is to give such training in farming, gardening, and stock raising, and in the sciences and other related subjects as will furnish a well-rounded education.

EQUIPMENT

AGRICULTURAL BUILDING—For description of Agricultural Building, see p. 36.

UNIVERSITY FARM—The University Farm, comprising 213 acres formerly owned by the D. C. Wheeler Company, Incorporated, is located three miles south of Reno along the Virginia road. The college herds contain representative types of the following breeds: Percheron, Shire and thoroughbred horses; Angus, Hereford and Shorthorn cattle; Corriedale, Hampshire, Rambouillet and Shropshire sheep.

The farm is maintained and operated as a livestock farm. Practically all feedstuffs used for the herds and flocks are grown on this farm. The farm is especially well equipped with high-class individuals of the different breeds of Nevada live stock.

DAIRY—The laboratory in the Agricultural Building, equipped with up-to-date machinery and apparatus, furnishes the best opportunity for instruction in methods of handling milk and dairy products, as milk testing, butter making, cheese manufacture, and the marketing of milk.

The dairy herd is situated at the University Farm. It consists of representative types of Holstein-Friesians, Ayrshires, Jerseys, and Guernseys. About eighteen head of mature animals with the necessary accumulating young stock are maintained. The dairy herd gives an opportunity for studying breeds and also for practical work with the milking machine, as well as opportunity for observing methods in care of milk and its products.

EXPERIMENT STATION FARM—This is a farm of sixty acres lying east of the Campus and devoted to research projects of the University Agricultural Experiment Station.

SHOPS—The shops for teaching of wood-work and blacksmithing are equipped for the best of work. Arrangements

have been made for the housing and use of the representative types of farm machinery used in the various field operations.

ADMISSION REQUIREMENTS

For admission requirements, entrance subjects, and the number of credits belonging to each, see pages 95-104.

REQUIREMENTS FOR A BACCALAUREATE DEGREE IN AGRICULTURE

The Degree of Bachelor of Science in Agriculture will be conferred upon students who satisfactorily complete the full course of study in the School of Agriculture, aggregating, for the Classes of 1928, 1929 and 1930, 130 semester units, and thereafter 128 semester units.

COLLEGE OF AGRICULTURE

COURSES OF STUDY		First Semester	Second Semester
FRESHMAN YEAR			
Military 1-2	1	1	
Hygiene 2	1	1	
Physical Education 1-2	1/2	1/2	
Chemistry	4	4	
English 1-2	3	3	
Agricultural Electives	4	3	
Nonagricultural Electives	4	4	
	16 1/2	16 1/2	
SOPHOMORE YEAR			
Military 3-4	1	1	
Physical Education 3-4	1/2	1/2	
Agricultural Electives	6	6	
Nonagricultural Electives	6	6	
Open Elective	2	2	
	15 1/2	15 1/2	
JUNIOR YEAR			
Agricultural Elective	8	8	
Nonagricultural Elective	6	6	
Open Elective	2	2	
	16	16	
SENIOR YEAR			
Agricultural Elective	11	11	
Open Elective	5	5	
	16	16	

SCHOOL OF HOME ECONOMICS

REQUIREMENTS FOR A BACCALAUREATE DEGREE IN HOME ECONOMICS

The degree of Bachelor of Science in Home Economics is conferred upon students who have satisfactorily completed the full course of study aggregating 128 semester units (including 3 units in Physical Education and 1 unit in Hygiene in the Freshman and Sophomore years) in the

School of Home Economics as given on the following pages.

A.T.M.

The aim of the School of Home Economics is to raise the ideals of home-making, to prepare young women for the successful management of a home, and to impart to them scientific and technical knowledge, coupled with sufficient practice to fit them to become, either thoughtful home-makers, teachers of home economics, or workers in any field where this knowledge is needed.

Experience in actual home-making, either as a daughter working in the family or as a manager of a house, is a great aid to the successful work of the Home Economics course, and students are urged to get some such vocational experience.

EQUIPMENT

The Department of Home Economics has six large rooms and two offices in the Agricultural Building. For detailed description, see Agricultural Building and Laboratories.

The library of the Home Economics Department, covering dietetics, household sciences, house decoration, and textiles, is kept in the main University Library Building. Special fashion magazines are on a reference table in the sewing laboratory.

SCHOOL OF HOME ECONOMICS

COURSES OF STUDY

Freshman Year—First Semester		LAB.	LEC.
English 1	Composition and Rhetoric	2	3
Art 5	Principles of Art	2	—
Physical Education 1	Freshman Practice	1	—
Home Economics 3	Introductory Course	—	1
Home Economics 31	Food	2	1
History or Modern Language		—	3
Botany 3	Morphology and Physiology of Flowering Plants	1	2
		16	
Freshman Year—Second Semester			
English 2	Composition and Rhetoric	—	3
Art 6	Art Applied to the Home	2	—
Physical Education 2	Freshman Practice	1	—
Home Economics 32	Food	2	1
History or Modern Language		—	3
Hygiene 2		—	1
Elective		3	—
		16	
Sophomore Year—First Semester			
English 11 or 41	Public Speaking or Literature	—	2
Chemistry 5	General Inorganic Chemistry	1	2
Physical Education 3	Sophomore Practice	—	2
Home Economics 15	Clothing	2	—
Physics 19	Household Physics	1	2
Psychology 5	General Psychology	—	3
Elective		2	—

Sophomore Year—Second Semester		LAB.	LEC.
English 12 or 42	Public Speaking or Literature	—	2
Chemistry 6	General Inorganic Chemistry	1	2
Physical Education 4	Sophomore Practice	—	2
Home Economics 18	Clothing	2	—
Physics 20	Household Physics	1	2
Philosophy 22	Applied Ethics	—	3
Home Economics 16	Textiles and Design	1	1
Elective		1	—
		16	
Junior Year—First Semester			
Chemistry 26	Household Chemistry	2	2
Hygiene 7	Anatomy, Physiology and Hygiene	1	2
Economics 1	Principles of Economics	—	3
Home Economics 53	Foods and Cookery	3	1
Elective		2	—
		16	
Junior Year—Second Semester			
Hygiene 8	Anatomy, Physiology and Hygiene	1	2
Economics 2	Principles of Economics	—	3
Home Economics 66	Advanced Clothing	2	1
Elective		7	—
		16	
Senior Year—First Semester			
Home Economics 88	Care of the House	1	1
Home Economics 87	House Decoration	1	2
Elective		11	—
		16	
Senior Year—Second Semester			
Home Economics 86	Household Administration	—	3
Home Economics 81-83	Dietetics	3	2
Home Economics 76	Child Care	—	2
Elective		6	—

SPECIAL COURSES FOR ARTS AND SCIENCE STUDENTS

Home Economics 33	Foods	—	2
Home Economics 34	Clothing and Textiles	—	2
Home Economics 54	Health	—	2
Home Economics 52	Principles of Extension	—	2
All regular Home Economics courses are open to Arts and Science Students.			

RECOMMENDED ELECTIVES

Group I—Related Subjects:

Zoology 2, Bacteriology 51, History 53, English 41-42, Latin 61 (Greek Art), and Latin 62 (Roman to Modern Art), Philosophy 7, 8, 61, 62, Business Administration 41-42, 43-44, Sociology 71-72.

Group II—Home Economics Electives:

Home Economics 45, 49-50, 52, 54, 85, 95; Vocational Education 88.

Group III—For a Minor in Education, Electives Should be Chosen as follows:

Sophomore year, second semester, Psychology, 10; Junior year, first semester, Education 63; second semester, Education 60; Senior year, first semester, Education 71, 75; second semester, Education 76, Vocational Education 88.

Attention is called to the fact that students majoring in

Home Economics are allowed sufficient electives to take a second major or minor in some other department.

DAIRY SHORT COURSE

It has been the plan to offer a dairy short course whenever there were five or more applicants for work in dairy manufacturing. There is such a small number of creameries in the State that it is only occasionally that we have requests for this kind of work. Owing to the probably small number of students in dairy manufacturing, arrangements will be made for carrying on the short course in conjunction with the regular long course work. A small number of short course students will be able to obtain work half-time in the local creameries, which will not only help to pay their expenses but will enable them to get the practical as well as the theoretical side of the work.

COURSES OF INSTRUCTION

COURSES OF INSTRUCTION

On the following pages, listed under the Departments to which they belong, are given all the courses in which instruction is offered by the University. The Departments are arranged in alphabetical order, as in the table below. If all the instruction given by a department is intended for a particular College, this fact is indicated by the name of the College below the name of the Department. If certain courses offered by a Department are intended for a particular College, this fact is indicated by the name of the College following the number of the course. In all cases where no limitations of this character are found, it may be assumed that, so far as the curricula and regulations of the several colleges permit election, the instruction offered is open to all qualified students of the University.

The numbers prefixed to the courses ordinarily denote the classes of students for whom the work is intended, courses numbered from 1 to 50 being designated primarily for Freshmen and Sophomores, 51 to 100 for Juniors and Seniors, and 101 to 200 for graduate students.

DEPARTMENTS

Agronomy	Geology
Animal Husbandry	History and Political Science
Animal Hygiene	Home Economics
Art	Mathematics
Biology	Mechanic Arts
Bacteriology	Mechanical Engineering
Botany	Metallurgy
Horticulture	Military Science and Tactics
Hygiene	Mineralogy
Nature Study	Mining
Zoology	Modern Languages
Business (See Economics, Business, and Sociology)	Arabic
Chemistry	French
Civil Engineering	German
Classics	Italian
Greek	Portuguese
Latin	Spanish
Dairy	Music
Drawing (See Mechanical Engineering)	Philosophy
Economics, Business, and Sociology	Physical Education
Education	Men
Vocational Education	Women
Agriculture	Physics
Home Economics	Political Science (See History and Political Science)
Electrical Engineering	Poultry Husbandry
English Language and Literature	Psychology
General Engineering	Sociology (See Economics, Business, and Sociology)

AGRONOMY

College of Agriculture

PROFESSOR STEWART, HEAD OF DEPARTMENT

1. ELEMENTARY AGRICULTURE. Introduction to general agriculture. The soil—its formation, texture, plant food requirements, moisture, tillage, and fertility; the plant—its relation to soil and climate, its propagation, growth, and cultivation, and the kinds of crops and their culture. *First semester. Three credits.* Stewart.

4. FIELD CROPS. The principal cereal crops—corn, wheat, oats, barley, rye, rice, sorghum, etc. Laboratory—the study of the matured plant of the different varieties of grain; the judging of grain and hay according to the commercial standards of perfection for pure-bred varieties. *Second semester. Lectures, three hours; laboratory, one period. Four credits.* Stewart. Fee, \$2.

6. SOIL MANAGEMENT. A general lecture and laboratory course in geology of soils, origin, formation, physical composition, soil moisture, moisture movements and conservation, physical processes, surface tension, osmosis, capillarity, aeration and temperature. Influence of washing, drainage, and irrigation. Laboratory—comparison of the physical properties of different soil types as—specific gravity, water retention, capillarity, organic matter, alkalies, etc. Effect of mulches; soil sampling; mechanical analysis. *First semester. Lectures, two hours; laboratory, two periods. Four credits.* Stewart. Fee, \$3.

53. FORAGE CROPS. Legumes and grasses, the special use of these crops as hay, soiling, silage, pasture, green manure, cover crops, etc.; the care and management of pastures; plans for the rotation of soiling crops; adaptation of grasses and other crops for growing under different climatic and soil conditions. Laboratory—the examination of samples of the standard varieties of grasses, clovers, and other forage plants, the study of grass, clover, and alfalfa seeds with reference to quality, purity, and freedom from adulterants and weed seeds; the identification of seeds of noxious weeds which may be found in grass, clover, or alfalfa seed. *First semester. Lectures, three hours; laboratory, one period. Four credits.* Stewart. Fee, \$2.

57. FARM MANAGEMENT. The evolution of farming; the relation of capital and labor to farm management; the

general management of implements and equipment; ownership versus rental of land; the choice of a farm; systems of farming; farming compared with other lines of business; marketing problems; advertising; farm records and farm accounts; the management of fields, crops, and manures. *Adams: Farm Management. Second semester. Lectures, three hours; laboratory, one period. Four credits. Stewart. Fee, \$3.*

58. IRRIGATION AND DRAINAGE. A study of the principles of irrigation as follows: Sources of water supply; measurement of water; water requirements of crops; duty of water; losses in use of irrigation water; preparation of land and methods of irrigation; farm ditches and structures; drainage of farm lands and reclamation of alkali lands. *First semester. Lectures, three hours. Three credits. Stewart.*

62. SOIL FERTILITY. Composition and value of fertilizers, barn-yard and green manures; maintenance and improvement of fertility; effect of various crops and different systems of farming on the fertility of the soil. Studies of crop rotation and fertility. Study of the productivity, best uses of Nevada soils and their improvement. *Prerequisite: Agronomy 6. Second semester. Lectures, two hours; laboratory, two periods. Four credits. Stewart. Fee, \$3.*

71. GENERAL FARM MECHANICS. A fully equipped laboratory in the basement of the Agricultural Building offers facilities for a full course of instruction and practice in the machinery and equipment of the farm, including concrete mixing and forms for concrete; construction and use of modern field machinery for tillage, seeding and harvesting; general labor saving machinery for the farm; farm pumps, windmills, pressure systems and gasoline engines. (Machinery for study and demonstration purposes is loaned by the leading implement houses of Nevada.) *First semester. Lecture, one hour; laboratory, two periods. Three credits. Fee, \$1.*

72. FARM STRUCTURES. A course in the methods of construction and designs of ordinary farm buildings, including houses, barns, sheds, granaries, silos, etc. Various small farm implements and appliances as road drags, levelers, irrigation boxes and forms for concrete work will be designed and built. Field trips will be taken to observe buildings under construction; sketches and complete cost estimates will be made of these buildings. Principles of rural sanita-

tion including heating, lighting, water supply, and sewerage disposal. *First semester. Laboratory, two periods. Two credits. Fee, \$1.*

76. HISTORY OF AGRICULTURE. A review of the history of organized agriculture together with a consideration of the various agrarian movements, their causes and effect. Review of the history of reclamation, of irrigation institutions, economics, water rights, etc. *Either semester. Three credits. Stewart.*

ANIMAL HUSBANDRY

College of Agriculture

PROFESSOR WILSON, HEAD OF DEPARTMENT

1. BREEDS OF LIVE STOCK. The origin, development, characteristics, and uses of types and breeds of farm animals. For illustration, the animals owned by the department and other stock farms in the vicinity will be used, also lantern slides of typical animals of the various types and breeds. *Plumb: Types and Breeds of Farm Animals. First semester. Three credits. 105 Agricultural Building. Wilson.*

4. LIVESTOCK JUDGING. Practice in judging live stock to gain familiarity with the points of excellence in the various breeds of farm animals. *Plumb: Judging Farm Animals. Prerequisite: Animal Husbandry 1. First semester. Lectures, two hours; laboratory, two periods. Four credits. 105 Agricultural Building, and University Farm. Wilson. Fee, \$3.*

30. LIVESTOCK FEEDING. The principles underlying and problems connected with the feeding of farm animals. *Henry: Feeds and Feeding. Savage: Manual. Prerequisite: Animal Husbandry 1 and 4, Chemistry 5, 6. Second semester. Three credits. 105 Agricultural Building. Wilson.*

51. GENETICS. A discussion of the principles underlying the science of breeding, the aim of which is to develop, maintain, and improve the various types and breeds of farm animals and farm crops, studied with special reference to their application to breeding of farm animals. *Winters: Animal Breeding. Prerequisite: Zoology 2. Second semester. Three credits. 105 Agricultural Building. Wilson.*

54. LIVESTOCK REGISTRATION. The details of registering pure bred animals, requiring the use of blanks for making application for registry; the use of herd books. A study of the history of the recognized registry associations and the rules governing them; a study of the value of pedigrees and

how to keep the herd records. *Prerequisite:* Animal Husbandry 1 and 4. *First semester. One credit.* 105 Agricultural Building. Wilson.

55. ADVANCED LIVESTOCK FEEDING. The work in this course is largely laboratory, consisting of actual feeding experiments with farm animals. The laboratory is given for at least sixty days, seven days a week. *Prerequisite:* Animal Husbandry 30. *First semester. Lecture, one hour; laboratory, two periods. Three credits.* 105 Agricultural Building, and University Farm. Wilson.

56. ADVANCED STOCK JUDGING. Comparative scoring and judging. The judging of animals in classes, as at fairs and stock shows. *Prerequisite:* Animal Husbandry 4. *First semester. Three credits.* 105 Agricultural Building, and University Farm. Wilson. Fee, \$3.

57. LIVESTOCK MANAGEMENT. A study of the problems confronting the livestock farmer; calculating profits under various conditions; systematic keeping of records of farming operations; selection of animals for the feed yard, show ring, market, and butcher. *Prerequisite:* Animal Husbandry 1, 4, 30. *Second semester. Three credits.* 105 Agricultural Building. Wilson.

TEACHER TRAINING IN AGRICULTURE. *See Education.*

ANIMAL HYGIENE

College of Agriculture

PROFESSOR VAWTER, HEAD OF DEPARTMENT

50. ANIMAL HYGIENE. A lecture course covering the principles of livestock sanitation and first aid. *Prerequisite:* Zoology 51 and Bacteriology 51. *Second semester. Three credits.* Agricultural Building. Vawter.

ART

ASSOCIATE PROFESSOR LEWERS, HEAD OF DEPARTMENT

Requirements for a minor in Art: Art 1-2 (2 units), 3-4 (2 units), 51-52 (3 units), and 53-54 (3 units), and additional Junior-Senior work to make 18 units.

Requirements for a major in Art: Art 1-2 (2 units), 3-4 (2 units), 51-52 (6 units), and 53-54 (6 units), and additional Junior-Senior work to make 24 units.

Requirements for a special art teacher's certificate are listed elsewhere.

1-2. ELEMENTARY ART. The fundamental principles of form, color, and light and shade. Application of principles in drawing and painting in all mediums, pencil, charcoal,

oil color, water color, and pastel. Drawing and painting from nature in landscape and still life. Fundamental principles of design. Applied design in manual arts. *Both semesters. One credit required each semester.* More credits may be elected. Education Building. Lewers.

3-4. INTERMEDIATE ART. A continuation of the work of Art 1-2, with addition of clay modeling, drawing, and painting from life. *Both semesters. Credits to be arranged.* Education Building. Lewers.

5-6. ART APPLIED TO THE HOME. (School of Home Economics.) The fundamental principles of form, color, and light and shade. Color and form studied from nature in landscape and still life. Color and line harmony as applied to dress, millinery, and house furnishing. Fundamental principles of design. Original designing and its application in all ways relating to the home. *Two credits required each semester.* Education Building. Lewers.

7-8. TEACHERS' COURSE. A continuation of the first year's course (Art 1-2) in all branches and its application to each grade in public school work. *Second semester. One credit.* Education Building. Lewers.

51-52. ADVANCED ART. The continuation of Art 3-4 in more advanced work. *Both semesters.* Education Building. Lewers.

53-54. ADVANCED ART. Continuation of Art 51-52 in more advanced work. *Both semesters. Credits to be arranged.* Education Building. Lewers.

For the history of Art, see Latin 41, 42, 43 and 44.

BIOLOGY

PROFESSOR FRANDSEN, HEAD OF DEPARTMENT

PROFESSOR LEHENBAUER

ASSOCIATE PROFESSOR MAUCK

MR. BROWN

MR. CUNNINGHAM

The Department of Biology includes the following divisions: Bacteriology, Botany, Horticulture, Hygiene, Nature Study, and Zoology.

Bacteriology

51. GENERAL BACTERIOLOGY. A course of lectures and laboratory exercises on the morphology and life processes of the bacteria, with some references to allied organisms. The relationship of microorganisms to soil fertility, dairy prod-

nets, water purity, sewage, and the production of disease will be considered. *Prerequisite:* Zoology 2, Botany 2, or Hygiene 7-8. *First semester. Lectures, two hours; laboratory, two periods. Four credits.* 212 Agricultural Building. Frandsen. Fee, \$5.

Botany

Requirements for a minor in Botany: Botany 1 or 5, and 2, Zoology 2 or 4 and six hours of Junior-Senior work.

Requirements for a major in Botany: Botany 1 or 5, and 2, Zoology 2 or 4 and twelve hours of Junior-Senior work.

Students in the College of Agriculture are advised to take Botany 1, 52, 55, 61, and 64.

Students intending to take up Forestry should take Botany 1, 21, 52, 55, and 64.

1. MORPHOLOGY AND PHYSIOLOGY OF THE FLOWERING PLANTS. A study of the principles of botany. The laboratory work consists in the study of the structure, physiology, and adaptations of plants. For students who have not presented entrance Botany. *First semester. Two lectures; two laboratory periods.* Four credits. 110 and 210 Agricultural Building. Lehenbauer, Cunningham, Brown and Assistants. Fee, \$3.

2. MORPHOLOGY AND PHYSIOLOGY OF THE NONFLOWERING PLANTS. A study of representative types of algae, liverworts, fungi, mosses, ferns, and gymnosperms. The evolution of the plant kingdom. *Second semester. Two lectures; two laboratory periods. Four credits.* 210 Agricultural Building. Lehenbauer. Fee, \$3.

3. GENERAL BOTANY. (For students in the School of Home Economics.) A study of the structure and physiology of the higher plants and of selected types of the lower plants, such as bacteria, molds, mushrooms, and yeast. *First semester. Two lectures; one laboratory period. Three credits.* 110 Agricultural Building. Lehenbauer and Assistant. Fee, \$2.

5. BOTANY. For students who have presented Botany for matriculation. Content of course same as Botany 1. *One lecture; two laboratory periods. Three credits.* 110 and 210 Agricultural Building. Lehenbauer, Cunningham, and Assistant. Fee, \$3.

21. ECOLOGY. The geographical distribution of plants and plant structure in relation to environment. *Prerequisite:* Botany 1. *First semester. Two lectures. Assigned*

readings and reports on field trips. Two credits. 110 Agricultural Building. Lehenbauer.

52. TAXONOMY. A systematic and comparative study of the principal families of flowering plants represented in the local flora with special reference to their field recognition characters. *Prerequisite:* Botany 1. *Second semester. Two lectures; two laboratory periods. Three credits.* Agricultural Building. Lehenbauer. Fee, \$2.

55. PLANT PHYSIOLOGY. A more advanced study of plant nutrition, photosynthesis, transpiration and the environmental factors as they affect plant growth. *First semester. Two lectures; two laboratory periods. Four credits.* Alternates with Botany 61. 210 Agricultural Building. Lehenbauer. Fee, \$3.

61. PLANT BREEDING. A study of variations in plants, methods of selection and improving by the breeding of agricultural plants, Mendel's Law and its applications. *First semester. Lectures, three hours. Assigned readings, reports and laboratory demonstrations. Three credits.* Alternates with Botany 55. 210 Agricultural Building. Lehenbauer.

64. PLANT PATHOLOGY. A study of the important diseases of economic plants, their causes, identification, and control. *Second semester. Two lectures; two laboratory periods. Three credits.* Alternates with Horticulture 2. 210 Agricultural Building. Lehenbauer. Fee, \$3.

71-72. HISTOLOGY AND TECHNIQUE. The preparation of microscopic slides and a comparative study of plant tissues. *First or second semester. Credits to be arranged.* 210 Agricultural Building. Lehenbauer. Fee, \$2 to \$4 for each semester.

91-92. ADVANCED BOTANY. Special problems in some field of botany, physiology, pathology, histology, or taxonomy. Laboratory, assigned readings and reports. *Prerequisite:* Three years of botany. *Either semester. Credits to be arranged.* 210 Agricultural Building. Lehenbauer. Fee determined by type of laboratory work.

201-202. Thesis course for graduates.

Horticulture

2. ELEMENTS OF HORTICULTURE. (College of Agriculture). A general survey of the principles of fruit growing, vegetable and ornamental gardening. *Prerequisite:* Botany 1.

Second semester. Lectures, two hours; laboratory and practical exercises in farm orchard, one afternoon. Three credits. 4 Agricultural Building. Lehenbauer. Fee, \$2.

Hygiene

Requirements for a minor in Hygiene: Hygiene 2, 7-8, Physiology and Bacteriology 5. Requirements for a major in Hygiene: the above and six additional units of advanced work in Zoology or Bacteriology.

2. GENERAL HYGIENE. Two lectures per week. Required of all Freshmen. *Second semester. One credit.* Frandsen and Mack.

4. TEACHERS' HYGIENE. This course consists of lectures, assigned readings, and demonstrations covering the elementary principles of human anatomy and physiology, and paying particular attention to the hygienic applications. The problems of sex hygiene, including the control, the suppression and the prevention of venereal diseases, are discussed both in their individual and in their public bearings. Special attention is placed upon that phase of the subject pertaining to school life, as ventilation, cleanliness, etc. *Second semester. Two lectures. Two credits.* 210 Agricultural Building. Mack.

7-8. PHYSIOLOGY. The general principles of animal physiology, with special reference to the human being. The laboratory work consists of the dissection of some vertebrate, microscopic study of tissues and organs, physiological experiments and demonstrations, and the study of anatomical and physiological models. Some work on microorganisms is included. *Both semesters. Lectures, two hours; laboratory, one period. Three credits each semester.* 110 and 210 Agricultural Building. Brown. Fee, \$2.50 each semester.

53. RURAL HYGIENE. A course designed primarily for students in the College of Agriculture. Sufficient attention is given animal anatomy and physiology to make the laws of hygiene understood. Emphasis is placed upon matters pertaining particularly to country life, such as sanitation of farm buildings, disposal of garbage and sewage, water for human and animal use, house-flies and other disease carriers. *Prerequisite:* Zoology 2, Botany 1. *First semester. Lectures, three hours. Three credits.* 110 and 210 Agricultural Building. Frandsen.

Nature Study

1-2. GENERAL NATURE STUDY. The object of this course is two-fold: (1) To cultivate a better understanding and appreciation of natural phenomena with emphasis on the biological features; and (2) to prepare for the teaching of nature study in the public schools. It comprises the study of life histories, pond life, native birds, etc., and includes the making and care of aquaria, terraria, school garden, etc. *Both semesters. Two credits each semester.* 110 and 210 Agricultural Building. Mack. Fee, \$1.

Zoology

Requirements for a minor in Zoology: Zoology 2 or 4, Zoology 9 or Hygiene 7 and 8 (Physiology), Botany 1, and six units of Junior-Senior work.

Requirements for a major in Zoology: Zoology 2, 9 (or Hygiene 7-8), Botany 1 or 2, and twelve units of Junior-Senior work.

Additional courses advised: Physics 1-2 (or admission credit), general chemistry, qualitative and quantitative analysis and organic chemistry; German 1-2 and 3-4.

2. GENERAL ZOOLOGY. An introductory course dealing with the general principles of the science. The laboratory work consists of the study of the structure, activities, and habits of a number of types representative of the principal animal groups, and chosen as much as possible from local forms. For students who have not presented Zoology for matriculation. *Second semester. Lectures, two hours; laboratory, two periods. Four credits.* 110 and 210 Agricultural Building. Frandsen and Brown. Fee, \$4.

4. For students who have presented Zoology for matriculation. Content of course similar to Zoology 2. *Second semester. One lecture; two laboratory periods. Three credits.* Frandsen, Brown and Cunningham. Fee, \$4.

8. EVOLUTION. Lectures illustrated by lantern slides on the evidence and factors of organic evolution, with a discussion of the bearing of evolutionary principles upon science and life in general. *Second semester. Two credits.* 110 Agricultural Building. Frandsen.

9. COMPARATIVE ANATOMY OF VERTEBRATES. Lectures on the progressive development of structures and functions from the lower to the higher vertebrates, leading up to human anatomy. Laboratory dissection of the dog-fish, salamander, and a mammal. *Prerequisite:* Zoology 2, or Hygiene 7-8. *First semester. Lectures, three hours; laboratory, two*

periods. *Five credits.* 5 Agricultural Building. Frandsen. Fee, \$5.

51. ANATOMY OF DOMESTIC ANIMALS. Lectures, text-book and reference assignments. Laboratory study of skeletons of domestic animals, and the dissection of a cat, dog, or sheep. *Prerequisite:* Zoology 2, or Hygiene 7-8 or 53. *First semester. Lectures, three hours; laboratory, one period. Four credits.* 5 Agricultural Building. Brown. Fee, \$2.

53. ECONOMIC ZOOLOGY. Lectures dealing with the habits and life histories of the more important economic vertebrates, insects, worms, etc., in their relations to agriculture. *First semester. Lectures, two hours; laboratory, one period. Three credits.* 110 and 210 Agricultural Building. Brown. Fee, \$1.

63-64. EMBRYOLOGY. Lectures on comparative embryology of vertebrates. The laboratory work consists of the study of preparations of the frog, chick, pig, and human embryos at various stages of development. Some training in the preparation of embryological material will be given. *Prerequisite:* Zoology 2 and 9, or Hygiene 7-8. *Second semester. Lectures, three hours; laboratory, two periods. Five credits.* 212 Agricultural Building. Frandsen. (Alternates with Zoology 65 and 66.) Fee, \$2.

65. HISTOLOGY. The microscope and accessory apparatus, histological methods, and technique. Comparative cytology of animal tissues. *Prerequisite:* Zoology 1 and 9, or Hygiene 7-8. *Second semester. Lectures, three hours; laboratory, two periods. Four credits.* 212 Agricultural Building. Frandsen. (Alternates with Zoology 64.) Fee, \$4.

66. HISTOLOGY. Same course as 65. *Second semester.*

91. ADVANCED ZOOLOGY. Special zoological problems. Major students may select some problem for investigation under the direction of the instructor. Library reading, laboratory work, and reports, with final results embodied in the form of a thesis. *First semester. Credits to be arranged.* 212 Agricultural Building. Frandsen. Fee determined by type of work.

92. ADVANCED ZOOLOGY. Continuation of course 91.

201. Thesis course for graduates.

CHEMISTRY

PROFESSOR SEARS, HEAD OF DEPARTMENT

PROFESSOR ADAMS

ASSOCIATE PROFESSOR HOSKINS

MR. TRUESDAIL

Requirements for a minor in Chemistry: Either (for students without admission credit) courses 1-2, or (for students with one admission credit) courses 5, 6, and, in either case, courses 7, 9 and three additional units of Junior-Senior work.

Requirements for a major in Chemistry: Mathematics 11, and Physics 1a-b, 2a-b (or admission credit), and either (for students without admission credit in Chemistry) courses 1-2, or (for students with one admission credit) courses 5-6, and, in either case, courses 7, 9, 10, 51-52, and 95-96, and three additional units of Junior-Senior work.

Requirements for the degree, Bachelor of Science in Chemistry: See outline for Course of Study, page 118.

1-2. ELEMENTARY INORGANIC CHEMISTRY. Lectures, recitations, and laboratory work covering the elementary principles of Chemistry. This course will cover all of the more common elements and their most important compounds, including their relation to each other and to the different industries. Its purpose is to give the student sufficient acquaintance with the field of Chemistry so that he will be able to understand and appreciate its numerous applications to industry and to everyday life and at the same time prepare him for Chemistry 7. Designed for students who have not presented matriculation Chemistry. *Both semesters. Two lectures and two laboratory periods. Four credits each semester.* Chemistry Building. Sears and Staff. Fee, \$6.

5-6. GENERAL INORGANIC CHEMISTRY. A course in general Chemistry covering all of the more common elements and their relation to each other. Use is made of the periodic table to correlate the facts and to show their relation to industry and to everyday life. Open to students who have presented matriculation Chemistry. *Both semesters. Two lectures and one laboratory period. Three credits each semester.* Chemistry Building. Sears and Staff. Fee, \$3.

7. PRINCIPLES OF INORGANIC CHEMISTRY AND QUALITATIVE ANALYSIS. A lecture and laboratory course designed to give the student a knowledge of the fundamentals underlying the properties and uses of the metallic elements, including the systematic qualitative analysis of the more common metals and acids. *Prerequisite:* Chemistry 2 or 6. *Either semester.*

One lecture and two laboratory periods. Three credits. Chemistry Building. Sears. Fee, \$6.

9. QUANTITATIVE ANALYSIS. Designed to give the student training in some of the more fundamental and simpler methods of gravimetric analysis. A portion of one of the laboratory periods will be used to discuss the principles and problems involved in quantitative analysis. *Two laboratory periods each week.* Must be preceded or accompanied by Chemistry 7. *First semester. Two credits.* Chemistry Building. Sears. Fee, \$6.

10. QUANTITATIVE ANALYSIS. Attention will be given primarily to volumetric analysis, but special determinations in analytical Chemistry will be assigned to meet the demands of the individual students and the department in which the degree is sought. *One lecture and three laboratory periods each week.* *Prerequisite:* Chemistry 9. *Second semester. Three credits.* 203 Chemistry Building. Truesdail. Fee, \$9.

26. HOUSEHOLD CHEMISTRY. (College of Agriculture.) A laboratory and lecture course open only to students in Home Economics. Deals primarily with the practical applications of chemistry to problems of the household. *Prerequisite:* Chemistry 5. *Second semester. Two lectures and two laboratory periods. Four credits.* Truesdail. Fee, \$6.

51-52. ORGANIC CHEMISTRY. A lecture and laboratory course dealing with the compounds of carbon. *Prerequisite:* Chemistry 10 or Junior standing. *Both semesters. Two lectures; two laboratory periods. Four credits each semester.* 210 and 203 Chemistry Building. Adams. Fee, \$6.

53. ADVANCED ORGANIC CHEMISTRY. (Graduate credit given with consent of instructor.) A lecture and laboratory course on special chapters in organic Chemistry. *Prerequisite:* Chemistry 51-52. *First semester. Two lectures and two laboratory periods. Four credits.* 210 Chemistry Building. Adams. Fee, \$6.

61. ADVANCED QUALITATIVE ANALYSIS. A lecture and laboratory course designed to give a more intimate knowledge of the less common elements. Special emphasis will be given to a comparative study of properties and analytical relations, including the methods employed for their separation and detection. *One lecture and two laboratory periods.* *Prerequisite:* Chemistry 9 and 10. *First semester. Three credits.* 102 Chemistry Building. Sears. Fee, \$6.

62. THE PERIODIC LAW. (Graduate credit given with consent of instructor.) A lecture and seminar course designed to give the student a rather intimate knowledge of the less common elements and their relation to the more common elements. A critical study is made of the more important periodic tables in the light of recent developments in atomic structure and the known properties of the elements. Practical use is made of the periodic law to correlate the facts of Chemistry. *Prerequisite:* Two years of college Chemistry. *Second semester. Two credits.* Chemistry Building. Sears.

63. ADVANCED LABORATORY PRACTICE. A laboratory course designed to give the student practice in careful quantitative work. Special work suited to the individual needs of the student will be taken up in inorganic, analytical, organic or physical Chemistry. *Prerequisite:* Two years of college Chemistry. *First semester. Two credits.* 204 Chemistry Building. Adams, Sears, Hoskins and Truesdail. Fee, \$6.

64. SPECIAL ANALYTICAL PROBLEMS. A laboratory course designed to give the student training in commercial methods of analysis. Such substances as food, water, fuel, fertilizer, soil, insecticides, minerals, etc., may be taken up. *Prerequisite:* Two years of college Chemistry. *Second semester. Two credits.* Chemistry Building. Sears, Adams, Hoskins, Truesdail. Fee, \$6.

67. PHYSIOLOGICAL CHEMISTRY. (Graduate credit given with consent of instructor.) For students of chemistry, medicine, biology, bacteriology and nutrition. Lectures and recitations on the chemistry of carbohydrates, fats, proteins, body tissues, blood, secretions, putrefaction and the physiological processes such as digestion, absorption and assimilation of food, general enzyme action, metabolism and the fundamental principles of nutrition. The laboratory work consists of qualitative and quantitative experiments on the lecture material. *Prerequisite:* Chemistry 10 and 52. *First semester. Two lectures, two laboratory periods. Four credits.* Chemistry Building. Truesdail. Fee, \$6.

71. ADVANCED ANALYTICAL CHEMISTRY. A laboratory course designed particularly for chemistry and mining students but open to all students interested in the nonmetallies. Analysis of such substances as gypsum, cement, borax, silicates, alkali, slag, etc., will be emphasized. *Prerequisite:* Chemistry 10. *First semester. Two credits.* Chemistry Building. Sears. Fee, \$6.

72. **ADVANCED INORGANIC PREPARATIONS.** (Graduate credit given with consent of instructor.) A laboratory and discussion course. The student will be expected to prepare a number of inorganic substances involving some of the more difficult reactions and technique. Special emphasis will be given to method, technique, and equations involved. *Prerequisites.* Chemistry 51. *Second semester. One recitation and two laboratory periods. Three credits.* 206 Chemistry Building. Adams. Fee, \$6.

81-82. **PHYSICAL CHEMISTRY.** (Graduate credit given with consent of instructor.) A lecture and laboratory course correlating facts and theories concerning chemical reactions, solutions, the structure of matter; gases, liquids and solids; energy; solutions; rate of reactions; vapor tension; osmotic pressure; conductance; ionization; thermochemistry; applications to problems of Chemistry and related sciences. Open to Juniors and Seniors who have completed two years of Chemistry and Mathematics 10. A knowledge of calculus is desirable. *Both semesters. Two lectures and one laboratory period. Three credits each semester.* 210 Chemistry Building. Hoskins. Fee, \$3 each semester.

92. **HISTORY OF CHEMISTRY.** (Graduate credit given with the consent of the instructor.) A lecture course on the history and development of the science of Chemistry. *Prerequisite:* Two years of College Chemistry. *Second semester. Two credits.* Adams.

95-96. **CURRENT CHEMICAL LITERATURE.** (Graduate credit given with consent of instructor.) A seminar course designed to help the student become familiar with the various sources of chemical information as well as to afford him practice in summarizing such information for discussion. Each student will be required to present at least one report each semester upon an assigned topic. The class will meet not oftener than once each week for the presentation and discussion of assigned topics. *Prerequisite:* Two years of College Chemistry. *Both semesters. One credit per year.* May be repeated for credit. Chemistry Building. Staff.

100. **THESIS COURSE FOR UNDERGRADUATES.** Laboratory and library work on a special topic to be chosen by the student in consultation with instructors. *Prerequisite:* Chemistry 10, 51-52 or 81-82 and German, and recommended by the head of the department. *Second semester.*

Two credits. 204 Chemistry Building. Adams, Sears, Hoskins and Truesdail. Fee, \$6.

102. **COLLOID CHEMISTRY.** (Open to advanced undergraduates with the consent of instructor.) A lecture and laboratory course covering the principal physical and chemical properties of dispersed systems such as: methods of preparation, stability, precipitation, methods of measuring size of particles, electrical and optical properties. Practical application will be made to such problems in chemistry, physics, geology, metallurgy, and biology as will be of most value to those enrolled. *Second semester. One lecture and one laboratory period. Two credits.* Hoskins. Fee, \$3.

200. **THESIS COURSE FOR GRADUATE STUDENTS.** Special problems for research chosen in consultation with some member of the department and carried on under his direction. No student will be admitted to this course who has not completed four years of work in Chemistry and graduated from an approved college. *Both semesters. Credits to be arranged.* 203 and 204 Chemistry Building. Adams, Sears, Hoskins and Truesdail. Fee, \$3 per credit hour, according to work.

CIVIL ENGINEERING

College of Engineering

PROFESSOR BOARDMAN, HEAD OF DEPARTMENT

PROFESSOR BIXBY

2. **MAP DRAWING.** The work in this course consists of plotting engineering and topographic maps from field-survey notes. *First semester. Laboratory, one period. One credit.* Electrical Building. Bixby.

8. **THE ELEMENTS OF CIVIL ENGINEERING.** An outline of the general field included in Civil Engineering, followed by a brief discussion of a few of the fundamental principles involved in the following: Engineering computations, excavation and other volumes, elementary surveying, transportation engineering, structural engineering and hydraulics. The solution of many problems is required and numerous applications are pointed out of mathematics and the other fundamental sciences which form the basis of engineering. *Second semester. Two credits.* Electrical Building. Boardman.

11-12. **ENGINEERING LITERATURE.** The presentation and discussion of topics selected from current engineering litera-

ture. *Both semesters. One credit each semester.* Electrical Building. Boardman.

20. TECHNICAL REPORT. A systematic write-up of an approved technical subject in Civil Engineering. This course is designed primarily for civil engineering students and those registering in same will be required to obtain their assignments within the first two weeks after registration and prepare their outlines and bibliography for approval before starting the writing of the report. *Prerequisite:* English 1-2. *First semester. One credit.* Electrical Building. Bixby.

51-53. SURVEYING. Lectures, recitations and computations, covering the common types of surveying, elementary in the first semester and more advanced in the second semester with special emphasis on Polaris and sun observations for meridian, and topographic and mine surveying. *Prerequisite:* Mathematics 13. *Both semesters. Two credits each semester.* Electrical Building. Boardman.

52-54. SURVEYING LABORATORY. Field practice in the use and adjustment of surveying instruments and drafting room work in the reduction and plotting of the field notes. This work is made practical by the actual survey and mapping of a portion of the University grounds. This course accompanies Civil Engineering 51-53. *Both semesters. Two credits each semester.* Campus and Electrical Building. Bixby.

55. FOUNDATIONS AND SUBSTRUCTURES. A study of the temporary and permanent features of such construction. A considerable portion of this course deals with Portland cement concrete, its design, manufacture, and uses in substructures. The laboratory work includes the preparation of working plans of a specified structure, usually a concrete culvert. *Second semester. Lectures, two credits; laboratory, one credit; total, three credits.* Electrical Building. Boardman. (Alternates with C. E. 67.)

58. Sm. SUMMER SURVEYING. This course starts directly after the close of the regular college year in May. The work consists principally of topographic and mine surveying accompanied by related computations and mapping. The former involves careful base line measurement and triangulation for control, followed by topographic surveying by the plane table method. In the mine surveying, both surface and underground work is done and a mine map, showing the

underground workings, is made by each student. Direct solar observations are taken for meridian and latitude, and special emphasis is given to computations. *Prerequisite:* C. E. 51, 52, 53, and 54. Four weeks. Fee, \$20, including automobile transportation costs.

60. HIGHWAY ENGINEERING. A detailed study is made of the location, construction, and maintenance of highways. *Second semester. Four credits.* Electrical Building. Bixby. Fee, \$3.

63-64. RAILROAD ENGINEERING. Lectures, recitations, and field work on the location and construction of railroads. Also a study of locomotive tractive power and train resistances and their effects on the economic location and operation of railroads. *Prerequisite:* Civil Engineering 51-52. *First semester. Lectures, three credits; laboratory, two credits.* Electrical Building. Bixby.

67. ENGINEERING ECONOMICS. Economic selection, sinking funds, salvage value, depreciation, estimating, etc. Illustrated by engineering problems. *First semester. Lectures, two credits.* Electrical Building. Boardman. Not offered in 1927-1928. (Alternates with C. E. 55.)

69. GRAPHIC STATICS. A course which covers the principles of graphic statics, and their applications to the analysis of stresses in statically determinate structures for various conditions of loadings. *Second semester. Lecture, one credit; laboratory, one credit.* Electrical Building. Bixby.

72. TESTING MATERIALS LABORATORY. The experiments are as follows: Tension tests on steel, wrought and cast iron; compression tests on wood, building stone, brick, cast iron, wrought iron, and steel; effects on the strength of mortar by varying the proportions of sand, water, and cement; tests on standard cement briquettes; cross-bending tests on wooden and steel beams; cross-breaking tests on standard cast-iron test bars; tests of small iron, steel, and wood columns. A carefully prepared report clearly stated is required of each test. *Prerequisite:* C. E. 74 must be taken as a prerequisite or at the same time as C. E. 72. *Second semester. Laboratory, one period. One credit.* Electrical Building. Bixby. Fee, \$2.50.

74. STRENGTH OF MATERIALS. A study of the behavior of materials under stress and a discussion of stress and strain due to bending, buckling, and torsion. The appli-

ceptions of the cardinal principles of mechanics to riveted joints, pipes, cylinders, beams, columns, and shafts. The principle of work and area moments applied to finding deflections and moments of continuous beams. An extended discussion covering the general relations between stress and strain, with applications to combined stress, composite beams, resilience, hooke's, and fatigue of metals. *Prerequisite: Mathematics 55. Second semester. Lectures, three hours. Three credits. Electrical Building. Kent.*

75-76. STRUCTURAL ANALYSIS. A study of the determination of stresses in roof and bridge trusses and girders, and of the economic problems involved in the selection of the type of structure, materials to be used, length and number of bridge spans. *Prerequisite: Mathematics 26. Both semesters. Lectures, three credits first semester, two credits second semester. Electrical Building. Boardman.*

77-78. STRUCTURAL DESIGN. Application of courses 75-76 and the principles and standard practice methods of design to the designs of several common types of steel structures. Complete working drawings are made of at least two structures, one of them being a railroad plate girder bridge. *Prerequisite: Civil Engineering 75-76. Laboratory, three credits first semester, two credits second semester. Electrical Building. Boardman.*

85-86. REINFORCED CONCRETE. The theory and practice of reinforced concrete design and construction. In the laboratory part of the course applications are made to the design of several types of structures, including a retaining wall and an arch bridge. *Prerequisite: Mathematics 55 and Civil Engineering 74. First semester, lectures, two credits; laboratory, two credits. Second semester, lectures, one credit; laboratory, two credits. Electrical Building. Bixby.*

90. HYDRAULICS. A study of the principles of hydraulics and hydrostatics, the pressure and buoyancy of water, and the laws of its flow through openings and in channels of various kinds. Especial emphasis is laid on the solution of numerous practical problems by the student. *Prerequisite: Mathematics 25 and 26, Physics 1a, 1b and 2a, 2b, or Physics 8 and 9. Second semester. Lectures, three hours. Three credits. Electrical Building. Boardman. Fee, \$1.*

91. SANITARY ENGINEERING. A combination course dealing with public water supplies and the sewerage and drainage of towns. Especial attention is given to methods of sewage

disposal and to the purification of water. *Prerequisite: C. E. 90. Second semester. Lectures, three credits. Electrical Building. Bixby.*

94. IRRIGATION ENGINEERING. A study is made of the collection, storage, and distribution of water for irrigation, with special reference to the structures involved. *Prerequisite: C. E. 90. First semester. Lectures. Three credits. Electrical Building. Bixby.*

96. WATER-POWER ENGINEERING. A study is made of the more important problems of water-power development, including the characteristics of hydraulic motors affecting selection and installation. A study is also made of the costs and the feasibility of water-power projects. *Prerequisite: C. E. 90. Second semester. Lectures, three hours. Three credits. Electrical Building. Sibley.*

99. ENGINEERING PROBLEMS. This course consists of the working of assigned problems, the solution of which requires the application of various phases of engineering practice. A complete report of the work done on each problem, including all necessary drawings, costs, estimates, and conclusions, must be furnished to the department. This course is intended as an optional substitute for a thesis. *Second semester. Two credits. Electrical Building. Boardman.*

100. THESIS. Thesis on an approved subject in which the student is especially interested. *Second semester. Two credits. Boardman.*

121-122. ADVANCED STRUCTURAL ENGINEERING. The analysis and design of one or more of the following types: Arch, cantilever, suspension and various types of movable bridges. *Prerequisite: Civil Engineering 75, 76 and 77. Lectures and laboratory. Four to six credits for the year according to work accomplished. Electrical Building. Boardman.*

199-200. GRADUATE THESIS. Advanced research work in the investigation of engineering materials or other engineering problems. *Both semesters. Credits to be arranged. Electrical Building. Boardman.*

THE CLASSICS

PROFESSOR CHURCH¹
PROFESSOR THOMPSON
MRS. SHAVER

Requirements for a minor in Classics: With no admission credits

¹Absent on leave 1927-1928. During his absence only courses 1-2, 3-4, 11-12, 13-14, 15-16 will be offered.

in Latin, Classics 1-2, 3-4, and six units; with two admission credits, Classics 3-4, and six units.

Requirements for a major in Classics: With no admission credits, Classics 1-2, 3-4, 7-8, and ten units; with two admission credits, 3-4, 7-8, and ten units.

Entrance credits in Latin above two, especially if they include Vergil's *Aeneid*, will be accepted in meeting major and minor requirements.

The substitution of courses in Greek for equivalent courses in Latin will be permitted.

I. LANGUAGE

Only the courses in Language can be used to satisfy the general language requirement in the University.

1. LATIN

1-2. BEGINNING LATIN. This course is designed to prepare for the reading of Vergil and also for admission to the professional schools. Comparative Language, Medical Latin and Law Latin are stressed. *Both semesters. For students entering without high school credit in Latin, five credits each semester.*

For students entering with one year credit in high school Latin, three credits first semester and five credits second semester.

For students entering with two years' credit in high school Latin, three credits second semester only. 203 Morrill Hall. Shaver.

3-4. VERGIL. *Aeneid*. This course is intended for such students as present one or two years of Latin at entrance, but wish to continue the study in college. *Both semesters. Three credits each semester.* 203 Morrill Hall. Shaver.

5. CICERO. *De Senectute*. *First Semester. Three credits.* 203 Morrill Hall. Church.

6. HORACE AND CATULLUS. Latin Lyric Poetry. *Second semester. Three credits.* 203 Morrill Hall. Church.

Courses 5-6 given alternate years, alternating with 51-52. (Not given 1928-1929.)

7-8. LATIN PROSE COMPOSITION. Required of all students who have elected Latin as their major department, or who seek to be recommended as teachers of Latin. *Both semesters. One credit each semester.* 203 Morrill Hall. Church.

9. THE ROMAN NOVEL. Petronius, *Trimalchio's Dinner*. *Second semester. Two credits.* 203 Morrill Hall. Church.

101. SEMINAR FOR GRADUATES. (a) The study of the Roman burial formulae, their development, and religious sig-

nificance. (b) Comparative Mythology. Its religious, art, and literary forms.

2. GREEK

11-12. ELEMENTARY GREEK. Grammar, exercises, and Xenophon's *Anabasis*, Book I. An introductory course for all students who wish by somewhat concentrated effort to acquire in one year the ability to read ordinary Attic prose. *Both semesters. Six credits for the year.* (Given only if elected by five or more students.) 207 Education Building. Thompson.

13-14. PLATO AND HOMER. In the first semester, Plato's *Apology* and *Crito*, with selections from the other writings, will be read. In the second semester, Homer's *Iliad*, Books I-VI, will be read as an introduction to epic poetry, with as much attention as is necessary to the grammar and prosody of Homer, and to the Ionic dialect. *Both semesters. Three credits each semester.* (Given only if elected by five or more students.) 207 Education Building. Thompson.

15. GREEK TESTAMENT. Selections from the Gospels and Epistles. *First semester. Two credits.* (Given only if elected by five or more students.) 207 Education Building. Thompson.

16. GREEK LITERATURE—PHILOSOPHY. Reading of Plato's *Phædo*, with a brief study of the history of ancient philosophy. *Prerequisite:* Greek 1-2, and 3-4. *Second semester.*

A knowledge of Latin or Greek is not required for courses in Art and Literature.

II. ART

41. GREEK ART. Illustrated by lantern slides and reproductions. *First semester. Two credits.* 203 Morrill Hall. Church.

42. ROMAN TO MODERN ART. Illustrated by lantern slides and reproductions in color. *Second semester. Two credits.* 203 Morrill Hall. Church.

43-44. SUPPLEMENTARY COURSE IN APPRECIATION OF ART. Readings and reports. Open only to those who are taking or have taken Latin 41-42 or its equivalent. *Both semesters. One credit each semester.* 203 Morrill Hall. Church.

III. LITERATURE

51-52. COMPARATIVE CLASSICAL POETRY IN ENGLISH. The Epic, Lyric, Drama, and Pastoral, with supplemental reference to Classical and Teutonic Mythology and Modern Litera-

ture and Opera. *Both semesters. Two credits each semester.* (Alternate years; alternating with 5-6.) 201 Morrill Hall, Church.

DAIRY HUSBANDRY

College of Agriculture

PROFESSOR SCOTT, HEAD OF DEPARTMENT

1. **DAIRYING.** The composition and secretion of milk and causes of variation in its composition; the operation of the Babcock test as applied to milk and milk products; the various methods of cream-raising, including the study of the construction and operation of centrifugal separators; methods of making and marketing butter, with special reference to farm conditions, and the proper handling of milk on the farm will be discussed in the lectures. The laboratory work includes the testing of milk and other dairy products, operation of centrifugal cream separators, and the making and scoring of butter, and an observation of the essential points of the sanitary production and handling of dairy products as shown in the college barn and dairy. *Second semester. Lectures, two hours; laboratory, one period. Three credits.* 105 Agricultural Building. Scott. Fee, \$3.

5. **MILKING MACHINES.** Laboratory practice in milking with mechanical milkers. Practical work at the University Farm and observation of about six different types of machines operating near Reno. *Open to all students. Both semesters. Laboratory, one period. One credit.* Scott. Fee, \$2.

53. **MILK PRODUCTION.** Dairy husbandry in its relation to the producer of dairy products rather than the manufacturer. The lectures deal with the problems of the dairy farmer, such as adaptations of the dairy breeds, selection, management, feeding of dairy cattle, dairy barns, and calf-raising. The laboratory includes the judging of dairy cattle, visits to the local dairy farms and the observation of systems of dairy management followed by them. *Prerequisite: Dairying 1. First semester. Lectures, two hours; laboratory, one period. Three credits.* 105 Agricultural Building. Scott. Fee, \$3.

54. **BUTTER-MAKING.** Laboratory practice in the manufacture of creamery butter and ice cream. Instruction will cover sampling and testing of cream; pasteurizing and ripening of cream for butter-making, churning, with special attention to the factors that control the composition of

butter; preparing butter for the market; the preparation and use of home-made and commercial starters; creamery accounts; determining the amount of water in butter; testing for oleomargarine; manufacture of ice cream, sherbets; ices, lacto. *Prerequisite: Dairying 1. Second semester. Lecture, one hour; laboratory, two periods. Three credits.* 12 Agricultural Building. Scott. Fee, \$3. (This course will not be given unless elected by five or more students.)

55. **DAIRY SANITATION.** This course is the application of bacteriology to the problems of the producer and consumer of milk. It deals with the fundamental principles upon which are based sanitary production and handling of milk, cream-ripening and curing of cheese, the market milk industry; the relations of milk to the public health and the important relations of butter- and cheese-making. *Prerequisite: Dairying 1 and Bacteriology 51. First semester. Lectures, two hours; laboratory, one period. Three credits.* 12 Agricultural Building. Scott. Fee, \$2.

56. **CHEESE-MAKING.** A study of the comparative and characteristics of common American and European cheese. The laboratory work consists of manufacturing the common types of hard and soft cheese. *Van Slyke: Cheese-Making. Prerequisite: Dairying 1. Second semester. Lecture, one hour; laboratory, two periods. Three credits.* 12 Agricultural Building. Scott. Fee, \$3. (This course will not be given unless elected by five or more students.)

57. **ADVANCED MILK PRODUCTION.** Use of Dairy herd books; special feeding for high records; interpretation of official tests. *First semester. Lectures, two hours. Two credits.* 105 Agricultural Building. Scott.

59. **PROFESSIONAL JUDGING.** *First semester. Laboratory, one period. One credit.* University Farm. Scott. Fee, \$3.

ECONOMICS, BUSINESS, AND SOCIOLOGY

ASSOCIATE PROFESSOR SUTHERLAND, ACTING HEAD OF DEPARTMENT

MR. BLACKLER
MR. ANTHONY
JUDGE SOUTER
MR. NESS
MR. SEMENZA

Requirements for a minor: Six credits in Economics 1-2; twelve additional credits in the department, not less than six of which shall be in courses numbered above 50.

Requirements for a major: Sixteen credits in Economics 1-2 and

Economics 75-76, Economics 91-92; Fourteen additional credits in the department, not less than eight of which shall be in courses numbered above 50.

Economics

1-2. PRINCIPLES OF ECONOMICS. An introduction to the economics of production, value and exchange, money and credit, business cycles, international trade, distribution of wealth, labor, transportation, agricultural credit and marketing, public finance and taxation. *Prerequisite:* At least Sophomore standing. *Both semesters. Three credits each semester.* 103 Education Building. The Staff.

3. INDUSTRIAL HISTORY OF EUROPE. Open to Freshmen. *Two hours credit. First semester.* Ness.

5. ECONOMIC HISTORY OF THE UNITED STATES. Introductory historical treatment of topics selected from the following list: The industrial revolution, the tariff, money and banking, public finance and taxation, land policy, the labor movement, cooperation, immigration, the railroads and government regulation. History in the light of economics determinism and of personalism. *Open to Freshmen. Second semester. Two credits.* 103 Education Building. Ness.

51. PUBLIC FINANCE. Public expenditure, classification of revenues, principles of taxation, growth of indebtedness, financial administration in peace and in war, the connection between public finance and social reform. *Prerequisite:* Economics 1-2. *First semester. Three credits.* 103 Education Building. Anthony.

52. MONEY AND BANKING. Economic and governmental problems centering in the use of money and credit, the inflation vs. stabilization movements and their connection with business and labor conditions. *Prerequisite:* Economics 1-2. *Second semester. Three credits.* 103 Education Building. Ness.

53. INTERNATIONAL TRADE. Theory of international trade, history of the controversy between free trade and protection, the new interest in foreign trade. *Prerequisite:* Economics 1-2. *First semester. Three credits.* 103 Education Building.

55. TRANSPORTATION. The growth and development of railway transportation in the United States; the organization, construction and management of the modern railway systems; the theory of rates; the relation of the railroads to the public. The general scope and importance of the

railway problem at the present time. *Prerequisite:* Economics 1 and 2, Business 41 and 42. *Three credits. First semester.* 200 Education Building. Anthony.

56. INSURANCE. This course includes a study of insurance institutions and the various kinds of property and life insurance. *Prerequisite:* Economics 1 and 2, Business 41 and 42. *Three credits. Second semester.* Education Building. Anthony. (Not given 1927-1928.)

61. STATISTICAL METHODS. Elementary statistical methods as used in business, and the social sciences. Scrutiny of data, defining the units, tabulation, averages (mean, median, mode, etc.), index numbers, correlation, use of calculating machine, slide-rule, etc., graphical methods of presenting facts. *First semester. Two one-hour periods and one laboratory period. Three credits.* 103 Education Building. (Not given 1927-1928.)

64. LABOR PROBLEMS. Modern issues, concerning the wage-earning classes considered in the light of English and American history. A study of labor organizations with regard to wages, hours, conditions, control, labor of women and children, immigration, economic insecurity, unemployment, turnover, social insurance, employers' associations, government agencies, personnel administration. Motives in industry. *Prerequisite:* Economics 1-2. *Second semester. Three credits each semester.* 103 Education Building. Anthony.

65. INTRODUCTION TO ECONOMICS AND BUSINESS ADMINISTRATION (College of Engineering). *Prerequisite:* Junior standing. *First semester. Three credits.* 200 Education Building. McCarthy.

66. INDUSTRIAL AND FINANCIAL ORGANIZATION (College of Engineering). *Prerequisite:* Economics 65. *Second semester. Three credits.* 200 Education Building. McCarthy.

75-76. ECONOMICS OF THE BUSINESS CYCLE. A general discussion of the Business Cycle from the standpoint of the special fields in the department of Economics, Business and Sociology. The course will consist of five sets of lectures by the members of the Staff.

1. A review of the theories of the Business Cycle. A discussion of the relationships of the Cycle to public finance, taxation, labor, transportation, insurance and general social problems. Sixteen lectures. Anthony.

2. A discussion of the relationship of the Cycle to finance, production control, inventory control, expansion, industrial management, investments, and accounting. Sixteen lectures. Blackler.

3. A discussion of the relationship of the Cycle to business administration, sales and advertising. Sixteen lectures. Semenza.

4. A discussion of the relationship of the Cycle to foreign trade, foreign exchange, money and banking, and the general market. Sixteen lectures. Ness.

5. A correlation of the material discussed in the above lectures. Sixteen lectures. The Staff.

Both semesters. Two credits each semester. The Staff.

91. ADVANCED ECONOMIC THEORY. Advanced study of the principles of demand and supply including costs; of the functions of the different agents of production; of wages, interest, rent and profits; and of the means for the promotion of welfare. Recommended for seniors in the department of Economics, Business and Sociology. *Three hours. First semester. Ness.*

92. HISTORY OF ECONOMIC THOUGHT. A study of the development and trend of Economic Thought. Recommended for seniors in the department of Economics, Business and Sociology. *Three hours. Second semester. Ness.*

81-82. AGRICULTURAL ECONOMICS. The principles of economics with reference to agriculture; a brief history of the development of agriculture; agricultural geography; types of farming; land tenure; land policy and settlement; farm labor problems; price trends and movements; the tariff in relation to agriculture; rural credit; government policy toward agriculture; methods of studying agricultural economic problems; principles of marketing; cooperative marketing. Problems, work reports, and term theme are required to supplement textbook. *Prerequisite: Economics 1-2. Both semesters. Two credits each semester. 109 Agricultural Building. (Not given 1927-1928.)*

83. MARKETING FARM PRODUCTS. A brief study of economic geography incident to centers of primary production and consumption. A study of marketing processes and facilities; transportation and distribution; marketing methods and agencies and the proposed reforms for improve-

ments. *Prerequisite: Economics 1-2. First semester. Two credits. 109 Agricultural Building. (Not given 1927-1928.)*

95. SEMINAR. *Both semesters. Hours to be arranged with individual students. One credit each semester. Staff.*

Business

41-42. BUSINESS ADMINISTRATION. A study of the principles of business location, personnel management, marketing and financing. The administration of production and risk-bearing. Form of the business unit. Basic features of administration. Principles and problems. *Prerequisite: At least Sophomore standing. Both semesters. Three credits each semester. 200 Education Building. Semenza.*

43-44. ACCOUNTING. Accounting theory and practice for single proprietorships, partnerships and corporations. Problems and practice sets. *Prerequisite: At least Sophomore standing. Two lecture periods and one laboratory period. Both semesters. Three credits each semester. (Credit for the entire course only.) 200 Education Building. Blackler.*

55-56. CORPORATION ACCOUNTING AND ACCOUNTING PROBLEMS. *Prerequisite: B. A. 43-44. Both semesters. Three credits each semester. Education Building. Blackler.*

57. SELLING. Principles of salesmanship, organization and administration of sales departments. Problems. *Prerequisite: Business Administration 41-42. First semester. Two credits. 200 Education Building. Semenza.*

58. ADVERTISING. Principles and practice, media, copy, layout, campaigns. *Prerequisite: Business Administration 41-42. Second semester. Two credits. 200 Education Building. Semenza.*

59. BUSINESS MANAGEMENT. Internal organization and control for different forms of business enterprise. Office management, credits, etc. *Prerequisite: Business Administration 41-42. First semester. Three credits. 200 Education Building. (Not given in 1927-1928.)*

60. ECONOMICS OF RETAILING. Fact material, problems and suggestions for constructive thought on the subject of retail distribution, showing the relation of retailing to the other forms of business enterprise. *Prerequisite: Business Administration 41-42. Second semester. Two credits. 200 Education Building. (Not given 1927-1928.)*

62. INVESTMENTS. This course will discuss tests of an investment and their application; mortgage, security and analysis of municipal statements; corporation securities and stocks, their claims on earnings and assets; special investments and investors; when and how to make investments. *Prerequisite:* Economics 1 and 2, Business 41 and 42. *Two credits. Second semester.* Education Building. (Not given in 1927-1928.)

67. APPLIED BUSINESS FINANCE. Principles and problems of financing enterprises of various size and character. *Prerequisite:* Business Administration 41-42. *First semester. Three credits.* 200 Education Building. Blackler.

68. FUNDAMENTAL PRINCIPLES OF THE LAW PRACTICALLY APPLIED TO THE PROFESSIONS, BUSINESS AND CITIZENSHIP. A comprehensive investigation of the fundamental principles of the law, designed to provide the prospective engineer, architect, physician or other professional or business man with an intelligent understanding of the legal problems which constantly arise in the practice of any profession or business; to inculcate a deeper respect and reverence for the law by developing an appreciation of its sources, its growth, its importance, and its administration; and finally by so doing to elevate and vitalize citizenship. *Second semester. Three credits.* 200 Agricultural Building. Souter.

69. MARKETING. General methods and problems of our system of distribution of raw materials, farm products, and manufactured goods. *Prerequisite:* Business Administration 41-42. *First semester. Three credits.* 200 Education Building. Sutherland.

70. INDUSTRIAL ORGANIZATION. General factory organization, standardization of operations, production plans and administration. *Prerequisite:* Business Administration 41-42, or Junior or Senior standing in the College of Engineering. *Second semester. Three credits.* 200 Education Building. Sutherland.

95. SEMINAR. *Both semesters.* Hours to be arranged with individual students. *One credit each semester.* Staff.

Sociology

1-2. ELEMENTARY SOCIOLOGY. A general course in the principles of Sociology devoted mainly to an examination of social institutions, activities and problems. *Both semesters. Three credits each semester.* Anthony.

71. INTRODUCTION TO SOCIOLOGY. The social nature of man. Influences of environment, such as climatic, geographic, and economic influences. Contacts, primary and secondary; morality and social control; group conflicts. Population, its quantity and quality; heredity; the differential birthrate. *First semester. Three credits.* 103 Education Building. Anthony.

72. SOCIAL INSTITUTIONS. A study of some of the more important institutions of our social organization, such as: The Family, Religious Institutions, Educational Institutions, The State, Private Property, Legal Institutions, and others if there is time. The study will be chiefly inductive and the analysis in terms of functions. *Prerequisite:* Sociology 71. *Second semester. Three credits.* 103 Education Building. Anthony.

73. RURAL SOCIOLOGY. (Given as Economics 83, Fall semester, 1924.) An application and extension of the principles of sociology to the rural population; rural institutions and organizations; vital statistics; morality; standards of living; leadership and organization of the rural community. Special attention will be given to rural conditions in Nevada. *Two credits. First semester.* 105 Education Building. (Not given 1927-1928.)

74. COUNTRY LIFE PROBLEMS. A course for students who wish to do field study in rural economic and social problems. Designed primarily for those preparing for rural teaching, extension work and other fields of leadership. *Prerequisite:* Sociology 73 and permission to register. *Two laboratory periods per week; two credits. Second semester.* 105 Education Building. (Not given 1927-1928.)

95. SEMINAR. *Both semesters.* Hours to be arranged with individual students. *One credit each semester.* Staff.

EDUCATION

PROFESSOR HALL, HEAD OF DEPARTMENT

PROFESSOR TRAINER

ASSISTANT PROFESSOR RUEBSAM

MISS WEBER

MR. BILLINGHURST

MISS TALBOY

COOPERATING TEACHERS

Requirements for a minor in Education: Psychology 5 and 10; Education 60, 63, 71, 75, 76, and two units to be arranged.

Requirements for a major in Education: Psychology 5 and 10;

Education 60, 63, 71, 75, 76, and ten to twelve additional credits, depending upon the aim in view.

Requirements for a course leading to the two-year Normal School Diploma and the A. B. Degree: One year of normal school work in addition to the requirements for the A. B. Degree. The normal school work will be selected and arranged according to the especial needs of the candidate.

Requirements for a course leading to both the two-year Normal School Diploma and the High School Teachers Diploma: Fourteen units of normal school work in addition to the present requirement for the High School Teachers Diploma, 32 units in all. These fourteen units are to be selected and arranged according to the needs of the candidate.

Elementary Education

20. PRINCIPLES OF TEACHING. For teachers in elementary schools. A study of the various types of classroom teaching to discover the principles of selection, organization and presentation of subject matter to children of the first six grades. *First year, second semester. Three credits.* 105 Education Building. Hall. Fee, \$2.

23. PROBLEMS IN RURAL EDUCATION. A survey of Nevada school conditions, the need of Nevada rural communities, and the opportunity and responsibility of the rural teacher for leadership among both children and adults are among the more important topics studied. *First year, first semester. Two credits.* 104 Education Building. Traner.

24. SCHOOL MANAGEMENT AND SCHOOL LAW. A consideration of the fundamental facts of school law and the fundamental problems of school organization and school hygiene from the point of view of the teacher in the elementary school. *Second year, second semester. One credit.* 105 Educational Building. B. D. Billingham.

25. OBSERVATION OF TEACHING. Observation and discussion of specific classroom work as a preparation for practice teaching. *First year, first semester. One credit.* Public Schools. Ruebsam.

28. SUPERVISED TEACHING AND GROUP CONFERENCES. The selection and organization of subject matter and the technique of teaching. *One hour a day, five days a week. First year, second semester. Five credits.* 209 Education Building and Public Schools. Ruebsam, Hall, and Cooperating Teachers.

29. SUPERVISED TEACHING AND GROUP CONFERENCES. Continuation of Education 28. *One hour a day, five days a week.*

First semester of second year. Five credits. 209 Education Building and Public Schools. Ruebsam, Hall, and Cooperating Teachers.

31. THE TEACHING OF ARITHMETIC. A study of the modern aims in teaching arithmetic; of the effect of these aims on the selection and organization of arithmetic material for the different grades; and of the presentation of this material. *Second semester, first year. Two credits.* 209 Education Building. Ruebsam.

34. THE TEACHING OF ENGLISH. Principles underlying the selection, organization and presentation of subject matter for the first four grades and the study of children's literature for these grades. *First semester, first year. Three credits.* 209 Education Building. Ruebsam.

35. THE TEACHING OF ENGLISH. Principles underlying the selection, organization and presentation of subject matter for grades 5 to 8 and the study of children's literature for these grades. *First semester, second year. Three credits.* 209 Education Building. Ruebsam.

37. THE TEACHING OF GEOGRAPHY. A study of the modern aims in teaching geography, with discussion of the selection, organization and presentation of suitable geographical material for the different grades. *First semester, first year. Two credits.* 105 Education Building. Hall.

41. KINDERGARTEN METHODS AS APPLIED TO PRIMARY WORK. Problems and projects dealing with constructive activities. *Second semester, second year. One credit.* 209 Education Building. Ruebsam. Fee, \$1.

42. THE TEACHING OF HISTORY AND CIVICS. A consideration of the aims of teaching history and civics and the effect of these aims on the selection, organization and presentation of subject matter suitable for the grades. *Second semester, second year. Two credits.* 105 Education Building. Hall.

48. EDUCATIONAL TESTS AND MEASUREMENTS. This course will consider the most serviceable tests and scales for measuring the elementary subjects. It is designed to assist teachers in judging and improving their instruction. The course will involve giving the tests, scoring, and interpreting the results. *Second semester, second year. One credit.* 104 Education Building. Traner. Fee, \$1.

56. SCOUTCRAFT. This course will deal with the theory and practice of Scoutcraft as presented by Boy Scouts of

America, Girl Scouts, Camp Fire Girls, Girl Reserves, and similar organizations. Section 1, for women, Miss Weber. Section 2, for men, *One credit. Given each semester.* 103 Education Building.

PENMANSHIP. A course in penmanship to meet the need of rural teachers. *One hour a week. Second semester. No college credit, but required of all Normal students.* 202 Education Building.

Secondary Education

60. **PROBLEMS OF SECONDARY EDUCATION.** The course will involve a study of the specific aims of the American high school; the place of the high school in the public school system; the junior high school; and legal provisions for the high school and its support in Nevada. *Second semester. Three credits.* Open to Juniors only. 104 Education Building. Traner. Fee, \$2.

63. **SCHOOL MANAGEMENT AND SCHOOL LAW.** A consideration of the fundamental facts of school law and the fundamental problems of school organization and school hygiene from the point of view of the teacher in the secondary school. *First semester. One credit.* 104 Education Building. B. D. Billingham.

71. **PRINCIPLES OF TEACHING.** For teachers in secondary schools. A study of the various types of classroom teaching to discover the principles of selection, organization and presentation of subject matter in secondary schools. To be taken in the Senior year. *First semester. Three credits.* 105 Education Building. Hall. Fee, \$2.

75-76. **PRACTICE TEACHING¹.** Required for candidates for the high-school teacher's certificate. This work will be done in Grades 7 to 12 of the Reno Public Schools under the direction of the Professor of Secondary Education, the teachers of Vocational Education, with the immediate supervision of the cooperating teacher in charge. Students must take particular care that they reserve ample time either in the forenoon or afternoon for the course. *Failure to do so may make the assignment for practice teaching impossible.*

84. **SUPERVISION IN THE ELEMENTARY GRADES.** This course is designed for those intending to become principals, supervisors, or administrators in education. Observation, read-

¹Practice Teaching may not be taken unless Education 71 has been taken or is taken at the same time.

ings and discussions. Open to qualified upper classmen. *Second semester. Two credits.* 209 Education Building. Hall.

HOME ECONOMICS

75-76. **SUPERVISED TEACHING.** For candidates for the high school teacher's diploma in Home Economics, and to meet in part the requirements of the Smith-Hughes Act. Students must reserve ample time for this work. *Both semesters. Two credits each semester.* Traner, and Cooperating Teachers.

88. **PROBLEMS IN HOME-MAKING EDUCATION.** A study of the curricula, methods of teaching, and making home contacts; use of texts, references and selection of equipment; and determination of aims and goals to be reached in public school home-making courses. Discussion of courses of study to meet various needs. Open to Juniors and Seniors in the School of Home Economics to meet in part the requirements of the Smith-Hughes Act. *Second semester. Two credits.* Miss Talbot.

COURSES OFFERED PRIMARILY FOR TEACHERS IN SERVICE

Time and place according to the convenience of the teachers. No fees for teachers in service.

101-102. **SEMINAR IN PROBLEMS OF THE JUNIOR HIGH SCHOOL.** This course is offered for teachers in the junior high schools who wish to make intensive study of specific aspects of the junior high school. *Both semesters. Two credits each semester.* 208 Education Building. Traner.

121-122. **SCHOOL SUPERVISION.** A course intended for prospective supervisory officers. *Both semesters. One credit each semester.* 105 Education Building. Hall and Ruesam. Given only upon request of a sufficient number of teachers.

ELECTRICAL ENGINEERING

College of Engineering

PROFESSOR S. G. PALMER, HEAD OF DEPARTMENT
MR. MITHOUG

2. **ENGINEERING LABORATORY.** A course intended to familiarize the student with the electrical laboratory equipment through a study of the mechanical and electrical arrangement of apparatus and the drawing of electrical circuit diagrams. *Second semester. One laboratory period. One credit.* Electrical Building. Palmer.

21. **ELEMENTS OF ELECTRICAL ENGINEERING.** A study of

the laws and properties of electric and magnetic circuits and their practical application in the various forms of electrical equipment. *Prerequisite:* Physics 1 and 2. *First semester. Three credits.* Electrical Building. Mithoug.

22. ENGINEERING REPORT WRITING. Practice in the writing of engineering reports from personal investigations, abstracting of engineering papers, and presentation of papers before engineering students. *One credit. Second semester.* Electrical Building. Palmer.

51. DIRECT CURRENT MACHINERY. The fundamental principles, theory, characteristics, construction and operation of direct current machines and circuits, supplemented by electrical problems. *Prerequisite:* Physics 9 and 12, Mathematics 11, 13 and 14. *First semester. Three credits.* Electrical Building. Palmer.

52. ALTERNATING CURRENT MACHINERY. Theory and application of alternating currents in electrical circuits and machinery; representation of alternating currents by vectors and complex quantities. *Prerequisite:* E. E. 51. *Second semester. Five credits.* Electrical Building. Palmer.

53. ALTERNATING CURRENT MACHINERY, ADVANCED COURSE. A continuation of the preceding course, taking up the more advanced problems in the theory and characteristics of electrical circuits and machinery. *Prerequisite:* E. E. 52. *First semester. Three credits.* Electrical Building. Palmer and Mithoug.

55-56. ELECTRICAL PROBLEMS. A course of electrical engineering problems for Senior electrical students; requires a knowledge of trigonometry, calculus, vectors, complex quantities, alternating current circuits and machinery. *Both semesters. Three credits total for the two semesters.* Electrical Building. Mithoug.

58. ELECTRICAL DESIGN. A study of the principles involved in the design of electrical machinery. The course should be accompanied by E. E. 56, the problems of which are arranged to parallel the text of the design course. *Prerequisite:* E. E. 52 and 53. *Second semester. Three credits.* Electrical Building. Mithoug.

61-62. ELECTRICAL ENGINEERING LABORATORY. Instruction in the use and care of electrical instruments and apparatus. Elementary tests on direct and alternating current machinery. *Prerequisite:* Physics 8, 9, 11 and 12. Must be

preceded or accompanied by E. E. 51 and either 52 or 72. *Both semesters. Lecture, one period; laboratory, one period. Two credits each semester.* Electrical Building. Palmer. Fee, \$5 per semester.

63-64. ELECTRICAL ENGINEERING LABORATORY, ADVANCED COURSE. The course is a continuation of the preceding one, and takes up the more advanced problems in electrical testing. *Prerequisite:* E. E. 51, 52, 61 and 62. *Both semesters. Lecture, one period; laboratory, two periods. Three credits each semester.* Electrical Building. Palmer and Mithoug. Fee, \$5 per semester.

65. ENGINEERING APPLICATIONS. A study of storage batteries, illumination, electric heating and other applications of electricity in modern engineering practice. An elective for Junior and Senior electrical students. *First semester. Three lecture periods. Three credits.* Electrical Building. Palmer.

66. ENGINEERING APPLICATIONS. A study of switchboards, oil circuit breakers, relays and other auxiliaries of modern electric power stations. An elective for Senior electrical students. *Second semester. Three lecture periods. Three credits.* Electrical Building. Mithoug.

67. TELEPHONE ENGINEERING. The theory and application of circuits and equipment involved in the telephone plant. An elective course for Senior electrical students. *First semester. Two credits.* Electrical Building. Palmer.

68. TELEPHONE ENGINEERING. A continuation of the preceding course, including a study of radio apparatus. *Second semester. Two credits.* Electrical Building. Palmer.

72. ALTERNATING CURRENTS. A course for mechanical, mining and other students who are not required to take the advanced courses in electrical engineering. A study of the theory and application of alternating currents in electrical machinery. *Prerequisite:* E. E. 51, Mathematics 25 and 26. *Second semester. Three credits.* Electrical Building. Palmer.

77-78. ELECTRICAL ENGINEERING LABORATORY. An elective course for E. E. Seniors who are taking E. E. 53 and 63. The student may select the experiments desired but must present a schedule of proposed work and have it approved by the instructor before registering in the course. *One credit either semester.* Electrical Building. Palmer. Fee, \$5.

80. ELECTRICAL INVESTIGATION. Original investigation of some electrical engineering problem and writing of report. The report is intended to be the equivalent of a thesis. Elective for Seniors in electrical engineering, who, in the opinion of the instructor, are qualified to undertake the work chosen and are particularly interested in it. A laboratory fee up to \$10 may be required, depending on the work undertaken. *Second semester. Two credits.* Electrical Building, Palmer.

ENGLISH LANGUAGE AND LITERATURE

PROFESSOR H. W. HILL, HEAD OF DEPARTMENT

PROFESSOR A. E. HILL

ASSOCIATE PROFESSOR RIEGELHUTH

ASSISTANT PROFESSOR HIGGINBOTHAM

MR. DUERR

MR. HARWOOD

Requirements for a minor in English: English 44-45, 94, and nine additional units in courses 51 to 100.

Requirements for a major in English: English 44-45, 94, and fifteen additional units in courses 51 to 100.

1-2. COMPOSITION AND RHETORIC. The theory of rhetoric is developed from the study and analysis of English prose masterpieces, and the principles thus established are applied in daily and weekly themes. *Three sections. Both semesters. Three credits each semester.* 206 Stewart Hall. A. E. Hill, Riegelhuth, and Higginbotham.

3-4. ADVANCED COMPOSITION. The study and practice of exposition, description, and narration. In this and the following course the aim is to develop the individual needs of the student, as well as to give him general training in writing. *Prerequisite: English 1-2. Both semesters. Three credits each semester.* 206 Stewart Hall. Professor A. E. Hill.

11-12. PUBLIC SPEAKING. The principles of effective public speaking studied and practiced through organized student discussions of contemporary controversial problems. Speech form and speech content are equally emphasized. *Both semesters. Two credits each semester.* 302 Morrill Hall. Duerr.

13-14. ORATORY. Individual research work based upon the examination of backgrounds, methods, and ideals of modern oratory. British eloquence is studied the first semester and American eloquence the second. *Prerequisite: English 11-12. Both semesters. One credit each semester.* 302 Morrill Hall. Duerr.

16-17. ARGUMENTATION AND DEBATE. The study of the principles of argumentation with the preparation of briefs, the participation in class debates, and the presentation of argumentative talks. The study of thinking, and the expression of thoughtful opinions on current topics are stressed. *Both semesters. Two credits each semester.* 201 Stewart Hall. Harwood.

18-19. ADVANCED SPEECH COMPOSITION. Formal oral discussions, and occasional addresses, based upon the study of contemporary literary, political, and sociological questions. Open to a limited number of students who have the consent of the instructor. This course may be repeated for credit 16a, 16b, etc. *Prerequisite: English 11-12 or 16-17. Both semesters. Two credits each semester.* 302 Morrill Hall. Duerr. (Not given in 1927-1928.)

21-22. EXPRESSION. The oral interpretation of the forms of literature with special attention directed to diction, gesture, the voice, and platform poise. The course is recommended to beginning students in public speaking, teaching, and dramatic work. *Both semesters. Two or three credits each semester.* 302 Morrill Hall. Duerr.

23-24. PLAY PRODUCTION. The study and production of representative modern plays, one act and longer, with lectures, readings and reports. Practice work is offered in directing, producing, and participating in classroom presentations. *Prerequisite: English 21-22. Both semesters. Three credits each semester.* Education Auditorium. Duerr. (Not given in 1927-1928.)

25-26. NEWS-GATHERING AND WRITING. Study of news values, the elements of the news story and the gathering of news. Practical application of these principles in the reporting and writing of all types of news for Reno newspapers and those of surrounding cities. Discussions and laboratory work. Year course. Upon consent of the instructor, students may repeat the second semester of this course for credit, in which case the course will be designated English 26A, 26B, and so on. *Prerequisite: English 1-2. Both semesters. Three credits each semester.* 105 Education Building. Higginbotham.

41-42. MASTERPIECES OF ENGLISH LITERATURE. The reading and study of the more important specimens of English literature. Lectures, assigned readings, and oral and writ-

ten reports. *Prerequisite:* English 1-2. *Three sections. Both semesters. Two credits each semester.* Stewart Hall. Riegelhuth.

44-45. GENERAL HISTORY OF ENGLISH LITERATURE. The study of literary movements and the interpretation of representative authors. Lectures, assigned readings, and weekly themes. *Prerequisite:* English 1-2. *Both semesters. Three credits each semester.* Stewart Hall. H. W. Hill and A. E. Hill.

51. NEWS EDITING. Study of the principles of editing copy of all types. Practice in copyreading, headline writing, rewriting, and in similar editorial duties. Discussions and laboratory. *Prerequisite:* English 25-26. *First semester. Three credits.* 105 Education Building. Higginbotham. (Offered in 1929-1930.)

52. ADVANCED REPORTING. Intensive work in collecting and writing news under actual newspaper office conditions. Designed to promote professional skill and speed. News of the city will be covered for Reno newspapers. *Prerequisite:* English 25-26. *Second semester. Three credits.* 105 Education Building. Higginbotham. (Offered in 1929-1930.)

53. THE COMMUNITY NEWSPAPER. Study of the problems of journalism peculiar to the country weekly and the small city daily, especially as found in Nevada. *Prerequisite:* English 25-26. *First semester. Three credits.* 105 Education Building. Higginbotham. (Offered in 1928-1929.)

54. PROBLEMS IN JOURNALISM. Members of the class will outline and carry through a program of study in one or more of the special phases of journalism in which they may be interested. *Prerequisite:* English 25-26. *Second semester. Three credits.* 105 Education Building. Higginbotham. (Offered in 1928-1929.)

55. THE AMERICAN NEWSPAPER. Lectures and discussions on the history, functions, future, principles, problems and opportunities of the newspaper in the United States, and study of the profession of journalism. Open to Juniors and Seniors. *First semester. Three credits.* 105 Education Building. Higginbotham.

56. NEWS EDITING. Editing of all types of newspaper copy, writing headlines, rewriting stories, practice in the art of make-up, and the study of the duties of a newspaper

editor. Practical experience in editing copy. Discussions and laboratory work. *Prerequisite:* English 25-26, 44-45. *Second semester. Three credits.* 105 Education Building. Higginbotham.

57. EDITORIAL-WRITING. The study of the interpretation of news and the writing of the newspaper and magazine editorial. Analysis of the responsibilities of the editorial writer to the publication, the community and the profession. *Prerequisite:* English 25-26, 44-45. *First semester. Three credits.* 105 Education Building. Higginbotham. (Not given in 1927-1928.)

58. THE FEATURE ARTICLE. The study and writing of the special feature articles for newspapers and magazines. *Prerequisite:* English 25-26, 44-45. *Second semester. Three credits.* 105 Education Building. Higginbotham. (Not given in 1927-1928.)

59. Intensive work in exposition, description and narration to develop familiarity with these types. *First semester. Three credits.* 206 Stewart Hall.

60. ADVANCED COMPOSITION. The development of the higher types of writing. The course will be planned to bring out the special capabilities of the individual student, especially in narrative. *Second semester. Three credits.* 206 Stewart Hall. A. E. Hill.

65-66. ENGLISH. A study of the development of the essay as a literary form from Bacon to the present day. Reports and informal essays based on the study of representative British and American essayists and essay types. *Both semesters. Two credits.* Riegelhuth.

68-69. THE ENGLISH NOVEL. The study of the development of the novel from the early Nineteenth Century to the present day. *Both semesters. Three credits each semester.* 206 Stewart Hall. A. E. Hill.

70-71. AMERICAN LITERATURE. The study of American prose and poetry from the beginning of the Nineteenth Century to the present time. *Both semesters. Three credits each semester.* 206 Stewart Hall. A. E. Hill.

72-73. THE MODERN DRAMA. Ibsen, Maeterlinck, Pinero, Shaw, and other contemporary dramatists. *Prerequisite:* English 44-45. *Both semesters. Three credits each semester.* 202 Stewart Hall. H. W. Hill.

75-76. SHAKESPEARE. The interpretation of six plays. *Prerequisite:* English 44-45. *Both semesters. Three credits each semester.* 202 Stewart Hall. H. W. Hill.

77. THE BIBLE AS LITERATURE. The study of the representative literary types found in the Old Testament. *Prerequisite:* English 1-2 and 41-42. *Second semester. Three credits.* 202 Stewart Hall. H. W. Hill.

78. MILTON. Minor poems and Paradise Lost. *Prerequisite:* English 44-45. *Second semester. Three credits.* 202 Stewart Hall. H. W. Hill.

79. WORDSWORTH AND COLERIDGE. The study of the chief writings of Wordsworth and Coleridge, accompanied by a brief survey of the period. *Prerequisite:* English 44-45. *First semester. Three credits.* 202 Stewart Hall. H. W. Hill.

80. TENNYSON AND BROWNING. The study of the chief writings of Tennyson and Browning, with special emphasis of the "Idylls of the King," and "The Ring and the Book." *Prerequisite:* English 44-45. *Second semester. Three credits.* 202 Stewart Hall. H. W. Hill.

94. CHAUCER. The Canterbury Tales. *Prerequisite:* English 44-45. *First semester. Three credits.* 202 Stewart Hall. H. W. Hill.

97-98, 99-100. SEMINAR FOR UNDERGRADUATES. Open only to Juniors and Seniors majoring in English who have attained an average grade of 2.0 in all their work. *Four semesters. One credit each semester.* H. W. Hill.

101-102. THESIS COURSE. Open only to graduate students. *Both semesters.* Hours to be arranged with individual students. *Three credits each semester.* Library. H. W. Hill.

191. OLD ENGLISH. Grammar and reading of simple prose and verse. *Prerequisite:* English 1-2 and 4. *First semester. Three credits.* 202 Stewart Hall. H. W. Hill.

192. BEOWULF. *Prerequisite:* English 44-45 and 91. *Second semester. Three credits.* 202 Stewart Hall. H. W. Hill.

193. EARLY MIDDLE ENGLISH. Grammar and reading of selections equivalent to Emerson's Middle English Reader. *Prerequisite:* English 4. *Second semester. Three credits.* 202 Stewart Hall. H. W. Hill.

GENERAL ENGINEERING

1. GENERAL ENGINEERING. Orientation. The requirements of engineering education and practice. Advantages and disadvantages, rewards and difficulties of engineering as a career. The course will be conducted in turn by a Mining, Civil, Electrical and Mechanical Engineer, each giving one-fourth of the course, the purpose being to aid Freshmen to a wise selection of the course they intend to follow. *First semester. One lecture per week. One-half credit. Required of all Freshmen.* Fulton, S. Palmer, Boardman, Sibley.

2. GENERAL ENGINEERING. Orientation. Continuation of General Engineering 1, the class being segregated according to school. It is assumed that the student will have chosen the branch of engineering that he will follow, and this course is planned to give him a general view of the problems in his particular branch and its subdivisions. *Second semester. One lecture per week. One-half credit. Required of all Freshmen.* Fulton, S. Palmer, Boardman, Sibley.

GEOLOGY

PROFESSOR JONES, HEAD OF DEPARTMENT
PROFESSOR CARPENTER
MR. GRAWE

Requirements for a minor in Geology: Physics 1-2 (unless Physics 18 offered for admission), Chemistry 1 (unless Chemistry is offered for admission), Mineralogy 1 and 2, Geology 8-9, and six additional units in Junior-Senior courses.

Requirements for a major in Geology: Physics 1-2, or 3-4 and 5-6, Chemistry 5 and 6, Mineralogy 1-2, Geology 8-9, and twelve additional units in Junior-Senior courses.

Students expecting to follow Geology as their life work should consult with the head of the department as early as possible in their course and plan their work so as to lay an adequate foundation for further work in their specialty in a graduate school.

8. GENERAL GEOLOGY. A general discussion of geologic forces and their results, dealing chiefly with the dynamic and structural aspect of the subject. The interpretation of topographic maps. *Prerequisite:* At least Sophomore standing. *Either semester. Three credits.* Mackay School of Mines. Jones and Grawe.

9. HISTORICAL GEOLOGY. An outline of the origin and history of the earth, including the diastrophic changes, stratigraphic relationships, and the description of the physical geography and life of the successive geological periods,

with especial reference to the North American Continent. *Prerequisite:* Geology 8. *Either semester. Three credits.* Mackay School of Mines. Jones and Grawe.

10. ENGINEERING GEOLOGY. (College of Engineering.) A study of the forces active on and within the earth, and their results, with especial emphasis on their effects on engineering problems. The recognition of common rocks and minerals and the interpretation of topographic maps. *Second semester. Three credits.* Mackay School of Mines. Jones and Grawe.

11. HISTORICAL GEOLOGY. (College of Engineering.) A brief summary of the origin and history of the earth. *Prerequisite:* Geology 8 or 10. *Second semester. Three credits.* Mackay School of Mines. Jones and Grawe.

51. PETROLOGY. The study of rock-forming minerals and rocks in the hand specimen. Lectures on the characters, origin, and classification of rocks. *Prerequisite:* Geology 8 or 10, Mineralogy 1 and 2. *First semester. Two credits.* Mackay School of Mines. Jones.

52. PETROGRAPHY. The study of rock-forming minerals and rocks under the microscope. *Prerequisite:* Geology 8 or 10, Mineralogy 1 and 2, Physics 1-2 or 10. *Second semester. Three credits.* Mackay School of Mines. Jones.

60. ECONOMIC GEOLOGY OF THE NONMETALS. A study of the occurrence, distribution, origin, and distinctive features of fuels and other nonmetallic rocks and minerals utilized commercially. *Prerequisite:* Geology 8, 9 or 10, Mineralogy 1-2. *Second semester. Three credits.* Mackay School of Mines. Jones, Carpenter, and Harrell.

61. ECONOMIC GEOLOGY OF THE METALS. The geology of ore deposits treating of their origin, mode of occurrence, alteration, and distribution; with a study of the more important mining camps in North America. *Prerequisite:* Geology 1-2 or 3, Mineralogy 1-2. *First semester. Three credits.* Mackay School of Mines. Jones.

70. FIELD GEOLOGY. Instruction in field methods, with practice in the investigation of a selected area in the vicinity of the University. *Prerequisite:* Geology 8 or 10; Mineralogy 1. *Second semester. One credit.* Jones.

71. SUMMER FIELD GEOLOGY. Two or more weeks are spent during the summer vacation in the mapping and study of one or more mining camps where both the surface and

underground geology may be investigated. A concise report of the work, together with well-kept field notes and finished geological maps is required of each member of the class. *Prerequisite:* Geology 51 and 60 or 61. *Credits to be arranged.* Jones.

79. GEOLOGICAL INVESTIGATION. Original investigation of some geological problem. *Prerequisite:* Geology 8-9, or 10-11, 51, 52, and 60, or equivalent training. *First semester. Credits to be arranged.* Mackay School of Mines. Jones.

80. GEOLOGICAL INVESTIGATION. Continuation of Geology 79. *Second semester. Credits to be arranged.* Mackay School of Mines. Jones.

101. GRADUATE COURSE. The original investigation of geologic problems, with seminar for discussion of current geologic literature and special topics. *Credits to be arranged.* Mackay School of Mines. Jones.

HISTORY AND POLITICAL SCIENCE

PROFESSOR WIER, HEAD OF DEPARTMENT
ASSOCIATE PROFESSOR FEEMSTER
ASSOCIATE PROFESSOR LEACH
ASSISTANT PROFESSOR HICKS¹
MR. HANSEN

Requirements for a minor in History: History 1-2, 5-6, and six units chosen from advanced history courses or from Political Science 73-74, 85-90, or from both.

Requirements for a major in History: History 1-2, 5-6, and twelve units chosen from advanced history courses or from Political Science 73-74, 85-90, or from both.

Requirements for a minor in Political Science: History 1-2, Political Science 1-2, and six units from courses 51-100.

Requirements for a major in Political Science: History 1-2, 3-4, Political Science 1-2, and twelve units from courses 51-100, but not more than six of these twelve units may be selected from courses 73-90.

Requirement for the Department's recommendation for the teaching of history in high schools; a major or minor, including History 51 and History 55-56.

Majors or minors in History are advised to take not less than six units each in Political Science and Economics. Majors and minors in Political Science are advised to take further work in History and Economics.

High-school courses in History and Civil Government will not be counted toward the fulfillment of the requirements given above except as a student may prove by superior work in class that such high-school work is the equivalent in information and discipline of the corresponding college courses.

¹On leave 1927-1928.

History 1-2 and 5-6 are designed to lay a foundation for the advanced courses in History and Political Science. History 1-2 is prerequisite to all other courses.

History

1-2. HISTORY OF THE AMERICAS. Against a broad European background the spread of civilization in America will be traced. The development of each geographical section will be presented and the relation shown of each section to America as a whole. Culmination of the study will be found in a survey of the Great Basin and the place of Nevada in that basin. The course will deal in a comprehensive way with the large movements of a political, economic, and social nature in the New World. It is intended to give a new and large American perspective. The Constitutions of the United States and of Nevada will be studied in fulfillment of the state legal requirement. Total course only accepted toward graduation. *Either semester. Three credits each semester.* Regular Freshman History Course. 101 Stewart Hall. Wier, Leach, and Hansen.

3-4. AMERICAN EXPANSION. Same course as 1-2 but without method instruction, and more advanced in character. For Sophomores who have previously taken "European Civilization" as a Freshman course. Total course only accepted toward graduation. *Both semesters. Three credits each semester.* 101 Stewart Hall. Wier, Leach, and Hansen.

5-6. EUROPEAN CIVILIZATION. The development of western civilization in Europe from the Roman Empire to the present time. Designed to furnish perspective for the understanding of the present-day world. *Both semesters. Three credits each semester.* 203 Stewart Hall. Leach.

51. THE TEACHING OF HISTORY. A study of the aims, methods, and materials for history teaching in secondary schools and colleges. Required for departmental recommendation for high school teaching of history. *First semester. Two credits.* 101 Stewart Hall. Wier.

53. INSTITUTIONAL RELATIONS OF WOMAN IN HISTORY. A study of woman's characteristics in relation to social and industrial life both in past centuries and at the present time. Especial emphasis on the vocations now open to women and the significance of college education in preparation for the same. Lectures on various vocations will be given by representatives of these professions and industries. Open to

Freshmen women, as well as to all other women students. *First semester. Two credits.* (Not given in 1927-1928.) 101 Stewart Hall. Wier.

54. HISTORICAL GEOGRAPHY. The movements of population as influenced by geographical factors. Traces political development, particularly of Eurasia, and familiarizes the student with the map. Adapted to the needs of Normal students. *Second semester. Two credits.* (Not given in 1927-1928.) 101 Stewart Hall. Wier.

55-56. WESTWARD EXPANSION OF THE UNITED STATES. A study of the westward movement from the Atlantic to the Pacific and of the continuous influence of the West upon national and international affairs. Particular attention will be given to the political, economic, and social aspects of the occupation of the various sections. Required for departmental recommendation for high school teaching of history. *Both semesters. Two credits each semester.* 101 Stewart Hall. Wier.

57-58. HISTORY OF WESTERN AMERICA. The study of the development of the Pacific Slope during the Spanish, Mexican, and early American periods. Comparison made with Atlantic Coast development. Study of legal and other institutions. Important as introduction to history of Nevada. *Both semesters. Two credits each semester.* 101 Stewart Hall. Wier. (Given on sufficient demand.)

59-60. LATIN AMERICA. This course will comprise an examination of representative States of South and Central America; their struggle for stability, their relations to each other and to the United States. Library readings will be assigned in the industrial development of Latin America and in the social and cultural character of Spanish-American civilization. Recommended for students of Spanish. *Both semesters. Two credits each semester.* (Not given in 1927-1928.) 105 Stewart Hall. Feemster or Hicks.

62. PRE-HISTORY. A study of human civilization before the time of written records. (To alternate with History 54.) *Second semester. Two credits.* 101 Stewart Hall. Wier.

63. THE RENAISSANCE. This course deals with the development of the modern spirit beginning with the last quarter of the Thirteenth Century. The topics stressed are the rise of nationalism, the revival of the individual, of art, of science,

of conscience, and the age of discovery. Lectures are given and reports made by students on assigned topics. Given on sufficient demand. *First semester. One credit.* Leach.

64. THE REFORMATION. A continuation of History 63. This course deals with the Catholic Reformation and the Protestant Revolution. Some of the topics considered are humanism and heresy, the Elizabethan Age, the revolt from Rome of the several European countries, the social revolution, and the results of the Protestant Revolt. Lectures are given and reports made by students on assigned topics. Given on sufficient demand. *Second semester. One credit.* Leach.

65-66. RESEARCH COURSE IN NEVADA HISTORY. A course designed to train students in research methods and at the same time give knowledge of Nevada history. *Both semesters. Credit to be arranged.* 101 Stewart Hall. Wier.

67-68. HISTORY OF THE FAR EAST. This course includes a consideration of the more significant phases of internal developments in China and Japan, with special emphasis on the international relations of these states one with the other and with European states. *Both semesters. One credit.* (Not given in 1927-1928.) Room 104. Hicks.

71-72. ANCIENT CIVILIZATION. A study of the rise of the institutions of civilization, of nationality, and of empire, culminating in Imperial Rome. This course is designed for those preparing to teach History or Latin, for classical students, and for all who desire a collegiate course in ancient civilization. *Both semesters. Two credits each semester.* 105 Stewart Hall. Feemster.

76. MEDIEVAL CIVILIZATION AND INSTITUTIONS. A study of the feudal system, the system of universal monarchy as embodied in the Holy Roman Empire, of the Church as the controlling force, etc. *Second semester. Three credits.* 101 Stewart Hall. Wier. (Given on sufficient demand.)

79-80. THE FRENCH REVOLUTION. Its causes and constitutional experiments. Studied from the European and American standpoint rather than as a French local crisis. *Both semesters. Two credits each semester.* (Not given in 1927-1928.) 101 Stewart Hall. Wier.

81-82. THE FAR EAST. The aim of this course is to give students a better understanding of the peoples of the Orient.

The history of China and Japan is dealt with, stress being laid upon the relations of the western nations and the peoples of the two leading oriental countries especially since the middle of the Nineteenth Century. *Both semesters. Two credits each semester.* Leach.

83. RUSSIA AND HER NEIGHBORS. The course is essentially a study of modern Russia in the light of historical development. A standard work like Wallace is read and applied to Russia of today as a method of approaching the present Russian enigma. *First semester. Two credits.* 105 Stewart Hall. Feemster.

85-86. THE MIDDLE PERIOD: United States History from the Second War with Britain to the Rebellion of the Cotton States. A more intensive study from the standard historians and sources of the formative period of American political character as distinct from inherited Anglo-Saxon institutions. The rise of the protective tariff system, and fall of the national banking system and currency. Jacksonian democracy and the rise of the National Party system. United States hegemony in the rising group of western republics, expansion and territorial imperialism, the losing struggle of the Slave States to control Congress, political constitutional philosophy on the nature of the Union, nullification, the rise of the New Republican Party, the breakdown of Constitutional Federal Government and the appeal to the sword. *Both semesters. Four credits for the course.* 105 Stewart Hall. Feemster.

91. THE TWENTIETH CENTURY: THE RIVALRY OF THE NATIONS. An intensive prewar study. Not given for less than five students. Open to History majors and minors and those specially qualified. The course will trace world movements from the Spanish-American War to the outbreak of the War of 1914. *First semester. Two credits.* 105 Stewart Hall. Feemster.

92. THE TWENTIETH CENTURY: THE STRUGGLE OF THE NATIONS. A continuation of course 91. A critical study of war history and war historians, with source studies on selected topics. *Second semester. Two credits.* Feemster.

99-100. HISTORY THESIS WORK. *Both semesters. Credits to be arranged.* 101 Stewart Hall. Wier.

199-200. GRADUATE THESIS. *Both semesters. Credits to be arranged.*

Political Science

1-2. COMPARATIVE GOVERNMENT. This course is to be regarded as introductory to the other courses in the department and is practically a prerequisite to them. A survey is made of the structure and chief features of the practical operation of the governmental systems of the United States, England, the leading countries of Europe, and certain typical countries of South America. *Both semesters. Four credits for the year.* (Total course only accepted for graduation.) 105 Stewart Hall. Feemster.

51. STATE GOVERNMENT. A survey of the structure and workings of the state governments in the United States of America. The Governor, the Legislature, the Courts; constitutional changes as shown by the experience of other States. Attention will be given to the organization and function of state parties; also to the new movements in county organization. *First semester. Three credits.*

53. MUNICIPAL GOVERNMENT. An introduction to the problems, both of government and administration, which confront the municipalities of the United States. Reference is also made throughout to European experience. *First semester. Three credits.* (Not given in 1927-1928.) 105 Stewart Hall. Feemster.

57-58. FAR-EASTERN GOVERNMENTS. A detailed study of the governments of China and Japan. Topics will be assigned for special class reports, and a paper will be required each semester. *Both semesters. Two credits each semester.* (Not given in 1927-1928.) Leach.

59-60. INTERNATIONAL RELATIONS WITH THE FAR EAST. The aim of this course is to introduce students to the elements of foreign policy especially with reference to the Far East. A survey of the history of International Relations with the Far East will be made and class discussions regarding the policies which have resulted in the clash of national interests will be held. Topics will be assigned for special reports and a paper will be required each semester. *Both semesters. Two credits each semester.* (Not given in 1927-1928.) Juniors and Seniors only. Leach.

64. INTERNATIONAL LAW. An elementary study of the principal topics, accompanied by examination of leading cases. *Second semester. Three credits.* (Not given in 1927-1928.) 105 Stewart Hall. Feemster.

66. INTERNATIONAL GOVERNMENT AND INSTITUTIONS. The course correlates with the course in International Law and will examine in the order of their rise, the Monroe Doctrine and the Pan-American System, the Hague Conferences and Court, The League of Nations and its organs and activities. *Second semester. Two credits.* Feemster.

73-74. ANCIENT INSTITUTIONS AND ROMAN LAW. An introduction to historical jurisprudence in the survey of the chief legal codes in force in early history as the background of the modern world. Hebrew, Greek, Roman to the codification of Justinian, with major emphasis on Roman Law. Library references to Maine, Lee, Kocourek and Wigmore, and Vinogradoff will be available. The course coordinates with English Constitutional History. *Both semesters. One, two or three credits per semester.* 105 Stewart Hall. Feemster.

79-80. THE CONSTITUTIONS OF THE UNITED STATES AND NEVADA. For Seniors of all colleges. *Both semesters. One credit.* Feemster.

85-86. COLONIAL EXPANSION. The history of the colonial acquisitions of the great nations and a comparative study of institutions developed therein, with special emphasis upon the United States. *Both semesters. Two credits each semester.* (Given on sufficient demand.) 101 Stewart Hall. Wier.

87-88. ENGLISH CONSTITUTIONAL HISTORY. A study of the rise of the English constitution out of the institutions of the medieval world. Comparison will be made with the contemporary institutions of the church, the Holy Roman Empire and the early French Monarchy. *Both semesters. Three credits each semester.* 105 Stewart Hall. Feemster.

89-90. MODERN CONSTITUTIONAL HISTORY. A detailed examination of the founding of the United States of America. The movement will be compared with the contemporary constitutional efforts in Poland and the first French Republic. *Both semesters. Three credits each semester.* (Not given in 1927-1928.) 105 Stewart Hall. Feemster.

93-94. POLITICAL PROBLEMS. Open to accredited students in the department and by permission to intercollegiate debaters. Current controversial issues will be selected each semester for analysis and investigation in the best current departmental periodicals. *One-half to two credits per semester according to work done.* 105 Stewart Hall. Feemster.

99-100. THESIS.

199-200. GRADUATE THESIS. Library facilities are available in two subjects. The Constitutional Convention of 1787, and the diplomacy of the outbreak of the war of 1914. *Both semesters. Credits to be arranged.* Library. Fee, \$2.

HOME ECONOMICS

College of Agriculture

PROFESSOR LEWIS, HEAD OF DEPARTMENT

*ASSOCIATE PROFESSOR BUOL

ASSISTANT PROFESSOR POPE

ASSISTANT PROFESSOR HAMMOND

3. INTRODUCTORY COURSE. (1) This course is designed to give students a knowledge of the aims, ideals and accomplishments of Home Economics. (2) To assist them in the application of laws of nutrition and principles of dress, and to give some experience in planning budgets. *First semester. Lecture, one period. One credit.* 204 Agricultural Building. Lewis.

9. GENERAL HOME ECONOMICS. A brief survey of Home Economics subjects, including clothing and textiles, school lunches, boys and girls club work, and home nursing. Especially adapted for Normal School students. *First semester. Lecture, one hour; laboratory, two periods. Three credits.* 203 Agricultural Building. Lewis, Pope, Hammond. Fee, \$2.

15. CLOTHING. Drafting of the simple shirt waist and the kimona gown. Designing of patterns for collars and making modifications of simple patterns. Learning or review of simple constructive stitches; use of sewing machine and attachments and practical application of them. *No credit given without H. E. 18. First semester. Laboratory, two periods. Two credits.* 204 Agricultural Building. Pope. Fee, \$2.

16. TEXTILES AND DESIGN. A study of textile fibers, processes of the manufacture of fabrics, simple tests; comparison and identification of manufactured products. The study of color and design as adapted to house and clothing. *Second semester. Lecture, one period; laboratory, one period. Two credits.* 204 Agricultural Building. Pope. Fee, \$2.

18. CONTINUATION OF H. E. 15. Adaptation of commercial patterns. Study of line and proportions of human figure and designing dresses for different types of individuals. Cutting, fitting, and finishing garments made from cotton.

*Member of Agricultural Extension Staff.

linen, wool, or silk. *Prerequisite: H. E. 15. Second semester. Laboratory, two periods. Two credits.* 204 Agricultural Building. Pope. Fee, \$2.

31-32. FOODS AND COOKERY. A study of foods from the standpoint of their composition, economy, selection, preparation and use. *Both semesters. Laboratory, two periods; lecture, one hour. Three credits each semester. Credit not given for one semester only.* 203 Agricultural Building. Hammond. Fee, \$5.

33. FOODS. This course aims to develop good health habits in relationship to the selection, use and care of foods. It describes very simply the essentials of an adequate diet and the nutritive properties of common food materials. *Either semester. Lectures, two periods. Two credits.* 204 Agricultural Building. Lewis.

34. CLOTHING AND TEXTILES. A course for consumers; this course aims to develop ability to select, use and care for textiles and clothing. The economic side will also be considered. *Either semester. Two periods, two credits.* 204 Agricultural Building. Fee, 50 cents.

45. WEAVING. The study of such phases of decorative art as involve application of the principles of color, design and form, to hand-woven household products made from reed, raffia, sweet grass, pine needles, crepe paper, cord, and thread. *Either semester. Laboratory, two periods. Two credits.* 204 Agricultural Building. Pope. Fee, \$2.

49. ELEMENTARY MILLINERY. This course is designed to teach selection, making, care, and renovation of hats and trimmings. *First semester. Laboratory, two periods. Two credits.* 108 Agricultural Building. Pope. Fee, \$2.

50. ADVANCED MILLINERY. Advanced problems based on work done in elementary course. *Second semester. Laboratory, two periods. Two credits.* 108 Agricultural Building. Pope. Fee, \$2.

52. PRINCIPLES OF EXTENSION WORK. This course is designed to give a survey of rural conditions as they exist in the country today, with particular emphasis on Nevada. The importance of farmer movements and their relation to national development will be touched upon. A history of the development of the land-grant colleges and agricultural extension work will be given, and particular emphasis placed on the organization of this work in Nevada. The farm, the

farm home and rural community will be the basis for discussion, and short field trips will be made to observe the work of agricultural extension agents in near-by counties. The purpose of this course is to assist students to qualify for positions as county extension agents, boys and girls club leaders, local community leaders, etc. *To be given on sufficient demand. Second semester. Lecture, two periods. Two credits.* Buol and _____

54. HEALTH. This unit course aims to give the students a knowledge of the laws of health; effects of violating these laws; home care of the sick; contagious diseases, their symptoms and treatment; immediate care in cases of accidents and emergencies. *Second semester. Lecture, one period. One credit.* 109 Agricultural Building. Hammond.

55. FOODS AND COOKERY. This course includes a consideration of food from the standpoint of nutritive value, marketing, cost, preparation and service. The project work consists of an intensive study of types of food in which the individual is particularly interested. The lectures include a study of kinds, selection and care of linen, china, and silver. *Prerequisite:* Home Economics 31-32; Chemistry 26. *Lecture, one period; laboratory, three periods. Four credits. First semester.* 203 Agricultural Building. Hammond. Fee, \$5.

66. ADVANCED CLOTHING. A course in costume design and tailoring. *Prerequisite:* Home Economics 15, 16, 18. *Lecture, one period; laboratory, two periods. Three credits.* 204 Agricultural Building. Hammond. Fee, \$2.

76. CHILD CARE. A study of the development of the child from the beginning of life through adolescence. Habit formation; proper feeding, nursing of simple ailments. Open to Juniors and Seniors only. *Second semester. Lectures, two periods.* 109 Agricultural Building. Hammond.

81. DIETETICS. Lectures on the function, nutritive value, and digestion of foods; feeding of families, typical dietaries; comparative cost and nutritive value of foods; requirements according to age, health, and activity. *Prerequisite:* Home Economics 31-32, 55; Chemistry 26; Hygiene 7-8. *Second semester. Two credits.* 206 Agricultural Building. Lewis.

83. DIETETICS LABORATORY. Practice in the computing and measuring of 100 calorie portions of common foods, and preparation of meals according to definite dietetic require-

ments. *Prerequisite:* Home Economics 31-32, 55; Chemistry 26; Hygiene 7-8. *Parallel:* Home Economics 81-83. *Second semester. Laboratory, three periods. Three credits.* 203 Agricultural Building. Lewis. Fee, \$5.

85. SPECIAL PROBLEMS IN FOODS. A course intended for advanced students capable of experimental and research work. *Prerequisite:* Home Economics 31-32, 55. *Either semester. Laboratory, two periods. Two credits.* 203 Agricultural Building. Lewis. Fee, \$5.

86. HOUSEHOLD ADMINISTRATION. Scientific management of the home and a study of household budgets. Open to Juniors and Seniors only. *Second semester. Lectures, two periods. Two credits.* 109 Agricultural Building. Lewis.

87. HOUSE DECORATION. Planning, decorating, and furnishing of homes, considering art, convenience, sanitation, and economy. *Prerequisite:* Art 5 and 6, Home Economics 16. *First semester. Lectures, two periods; laboratory, one period. Three credits.* 108 Agricultural Building. Lewis. Fee, \$1.50.

88. CARE OF THE HOUSE. A study of care of the house and its furnishings, making practical application of facts learned in Chemistry and Physics. *Prerequisite:* Physics 19; Chemistry 5. *First semester. Lecture, one period; laboratory, one period. Two credits.* 109 Agricultural Building. Pope. Fee, \$1.

95. SPECIAL PROBLEMS IN CLOTHING. A course designed for advanced students who wish to carry further the study of some problems suggested or touched upon previously in Home Economics work. This course is elective at discretion of the Instructors. *Either semester. Lecture, one period; laboratory, one period. Two to four credits.* 108 Agricultural Building. Fee, \$2.

Teacher-Training Courses in Home Economics. *See Education.*

MATHEMATICS AND MECHANICS

PROFESSOR HASEMAN, HEAD OF DEPARTMENT

ASSISTANT PROFESSOR SEARCY

Requirements for a minor in Mathematics: Mathematics 11, 13, 14, 25, 26, or their equivalent, and two additional units approved by the department.

Requirements for a major in Mathematics: Mathematics 11, 13, 14, 25, 26, 85, or their equivalent, and nine additional units approved by the department.

Mathematics 9 and 10 may be substituted for 11, 13 and 14 in the major and minor requirements.

5. **ELEMENTARY ALGEBRA.** A thorough study of elementary algebra including quadratic equations. The course is designed to suit a variety of students, those having had practically no algebra and those having had as much as one year in the high school. This course will be required of students whose credentials permit them to take Mathematics 11, but who are unable to carry it. Such students will receive no credit for this course. *First semester. Two credits.* 204 Morrill Hall. Searcy.

7. **SOLID GEOMETRY.** The geometry of the plane, the cone, the prism, the pyramid, and the sphere. *Second semester. Two credits.* 202 Morrill Hall. Searcy.

9-10. **ELEMENTARY ANALYSIS.** This course will cover algebra, trigonometry, and analytic geometry. It is designed for Freshmen who choose mathematics for their science requirement and students who expect to take a major or minor in mathematics. *Both semesters. Six credits.* 204 Morrill Hall. Haseman.

11. **ADVANCED ALGEBRA.** A thorough review and drill in algebra, with special emphasis on the topics that will be most helpful in the higher courses in mathematics. This course is required of all engineering students. *First semester. Two credits.* 202 Morrill Hall. Haseman and Searcy.

13. **PLANE TRIGONOMETRY.** A study of the trigonometric functions and identities. Considerable time is devoted to the solution of triangles. *First semester. Three credits.* 202 Morrill Hall. Haseman and Searcy.

13A¹. A review of the solution of equations, and the simplifying of fractions, graphing statistics, engineering data and functions. Practical solution of triangles, solution of vector problems applied to forces, velocities and accelerations. Study of the straight line, circle, parabola, ellipse and hyperbola. Graph of curves in polar coordinates. (College of Engineering.) *Second semester. Three credits.* Haseman.

14. **ANALYTIC GEOMETRY.** An analytical treatment of the properties of the straight line, circle, parabola, ellipse, and hyperbola. Polar coordinates, the transformation of coordinates, and the general second-degree equation in two vari-

¹Practical courses to be substituted for the regular engineering courses by students having particular difficulty with mathematics.

ables will also be studied. *Second semester. Three credits.* 202 Morrill Hall. Haseman and Searcy.

25. **DIFFERENTIAL CALCULUS.** A thorough study of the fundamental principles of differential calculus with application to expansion in series, tangents and normals, curvature, indeterminate forms, maxima and minima. Illustrative examples of a practical nature are emphasized. *First semester. Three credits.* 204 Morrill Hall. Haseman.

25A¹. **ELEMENTARY DIFFERENTIAL CALCULUS.** Its application to tangents, normals, rates, maxima and minima. (College of Engineering.) *First semester. Three credits.* Haseman.

26. **INTEGRAL CALCULUS.** The elements of integral calculus are first taken up in conjunction with certain topics in differential calculus not completed in the previous course. This is followed by the application of integration to areas of curves, areas of surfaces, volumes, moments of inertia, centers of gravity, etc. *Second semester. Three credits.* 204 Morrill Hall. Haseman.

26A¹. Simple forms of integration. Application of integral calculus to areas, volumes, arcs, pressures, work, center of gravity, moment of inertia, rectilinear and curvilinear motion of particles. (College of Engineering.) *Second semester. Three credits.* Haseman.

28. **MATHEMATICAL THEORY OF INVESTMENTS.** *Either semester. Three credits.* 204 Morrill Hall. Haseman.

32. The application of mathematics, including integral calculus to the solution of practical problems arising in the various engineering departments. Required of all regular engineering students who have had integral calculus. (College of Engineering.) *Second semester. Two credits.* Haseman.

35. **SPHERICAL TRIGONOMETRY AND PRACTICAL ASTRONOMY.** The solution of spherical triangles and the application of trigonometry to certain problems of practical astronomy. The theory and the use of the transit instrument. The determination of time, latitude and longitude. *Second semester. Two credits.* 202 Morrill Hall. Searcy.

40. **DETERMINANTS AND THE THEORY OF EQUATIONS.** The

¹Practical courses to be substituted for the regular engineering courses by students having particular difficulty with mathematics.

study of determinants and their applications. The theory of the quadratic, cubic, biquadratic, and the general algebraic equation. Approximation methods of solving equations of higher degree than the second. *Second semester. Two credits.* 204 Morrill Hall. Haseman.

55-56. ANALYTIC MECHANICS. Work in the resolution of forces, moment inertia, laws of motion, friction, dynamics of machinery, work and energy, and impulse. Special emphasis is given to practical problems. *First semester, three credits. Second semester, two credits.* 204 Morrill Hall. Haseman.

55A.¹ Methods of solution of practical problems in mechanics, including forces, friction, work and energy, and impulse. (College of Engineering.) *First semester. Three credits.* Haseman.

62. ENGINEERING MATHEMATICS. A general course in mathematics especially designed for electrical engineering students. *Steinmetz: Engineering Mathematics. Second semester. Two credits.* 204 Morrill Hall. Haseman.

70. SOLID ANALYTICAL GEOMETRY. A study of the plane, ellipsoid, paraboloid, hyperboloid, and the general equation of the second degree in three dimensional spaces. *First semester. Two credits.* 202 Morrill Hall. Searcy.

73. PROJECTIVE GEOMETRY. A synthetic development of the more fundamental projective properties of conic sections, including also an elementary treatment of homographic systems, involutions, anharmonic ratios, and the principle of duality. *First semester. Two credits.* 202 Morrill Hall. Searcy.

75. HISTORY OF ELEMENTARY MATHEMATICS. Lectures and assigned readings on the history of the mathematical science. *First semester. Two credits.* 204 Morrill Hall. Haseman.

85. DIFFERENTIAL EQUATIONS. Study of the ordinary and partial differential equations of the first and second orders with special attention to geometrical and physical applications. *First semester. Three credits.* 204 Morrill Hall. Haseman.

105. THEORY OF FUNCTIONS OF THE COMPLEX VARIABLE. The fundamental operations applied to the complex number, the series, Riemann surfaces, etc. *Both semesters. Five credits for the year.* 204 Morrill Hall. Haseman.

¹Practical courses to be submitted for the regular engineering courses by students having particular difficulty with mathematics.

110. THEORY OF NUMBERS. Lectures and reports. *Second semester. Three credits.* 202 Morrill Hall. Searcy.

115. VECTOR ANALYSIS. A study of the Vector notation applied to problems of physics. *Second semester. Three credits.* 202 Morrill Hall. Haseman.

125-126. ADVANCED CALCULUS. A more rigorous study of the differential and integral calculus, with extensive applications to geometrical and physical problems. *Three credits, first semester. Two credits, second semester.* 204 Morrill Hall. Haseman.

130. MODERN GEOMETRY. A comprehensive treatment of homogeneous coordinates and abridged notation with their applications in investigating analytically metrical and projective properties of lines and conics. *Both semesters. Two credits.* Searcy.

135. FOURIER'S SERIES AND FOURIER'S INTEGRALS. A study of a few of the more important partial differential equations of physics. Development of the functions into cosine and sine series. *First semester. Three credits.* 204 Morrill Hall. Haseman.

150. SEMINAR. Library work and reports on various topics of mathematical interest. *Both semesters. Two credits each semester.* Haseman.

For the benefit of students desiring to make mathematics their major, or to take more advanced courses in mathematics, the following subjects will be offered at any time: Elliptic Integrals and Elliptic Functions, Differential Geometry, Partial Differential Equations, Calculus of Variations, Theory of Probabilities, Theory of Functions of a Real Variable, and Synthetic Geometry.

MECHANIC ARTS

College of Engineering

MR. ROCKLUND, HEAD OF DEPARTMENT

MR. CARROLL, ASSISTANT

1. WOOD WORK. The students are taught the use of hand and machine tools and the most approved processes and methods followed in engineering construction. The bench work includes the following operations: plowing, sawing, rabbeting, planing, notching, splicing, mortising, tenoning, dovetailing, framing, paneling, and the general use of carpenter's tools. A number of exercises in wood turning are

given to all taking this course. *Sophomore year. Either semester. One credit either semester, according to requirements of the respective departments.* Mechanical Building. Rocklund. Fee, \$4 per credit.

2. FORGING. The work in forging includes exercises in heating, bending, drawing, upsetting, plain welding, butt welding, lap welding, ring welding, tee welding, etc. In steel forging the exercises include the making and tempering of punches, drills, chisels, annealing, casehardening, and the making of a complete set of machine-cutting tools for the student's future use in the machine shop. *Sophomore year. One or two credits either semester, according to the requirements of the respective departments.* 101 Mechanical Building. Carroll. Fee, \$4 per credit.

3. MACHINE SHOP. Bench and lathe work. Includes chipping, filing, scraping, and similar bench work, and turning, filing, and thread cutting. *First semester. Two credits.* Mechanical Building. Rocklund. Fee, \$4 per credit.

4. FOUNDRY PRACTICE. Instruction is given in pattern making, molding, core making, and casting in brass and iron. Practically all of the castings used in the machine shop are made by the students in this course. *Sophomore year. Second semester. One credit.* Mechanical Building. Rocklund. Fee, \$4 per credit.

5. MACHINE SHOP. Drill, shaper, planer, milling-machine, grinder. The first part of the course includes instruction on the above machines, and the second part consists of the construction or erection of some more or less complex piece of machinery. *Second semester. Two credits.* Mechanical Building. Rocklund. Fee, \$4 per credit.

6. PATTERN-MAKING. Instruction is given in making of wood patterns for use in the foundry, introducing solid and built-up patterns, also dry and green sand-cores, horizontal cores and core-prints, segment boxing, and the two- and three-part flask. *Sophomore year. Second semester. One credit.* Mechanical Building. Rocklund. Fee, \$4 per credit.

7A-7B. MACHINE SHOP. An advanced course for engineers who wish to extend their knowledge of machine shop practice beyond the regular requirements. *Second semester. 7A, two credits. 7B, one credit.* Mechanical Building. Rocklund. Fee, \$4 per credit.

MECHANICAL ENGINEERING

College of Engineering

PROFESSOR SIBLEY, HEAD OF DEPARTMENT

ASSOCIATE PROFESSOR LEWERS

ASSOCIATE PROFESSOR KENT

ASSISTANT PROFESSOR MCCARTHY

2. ELEMENTARY MECHANICAL DRAWING. Lettering, geometrical construction, isometric projection, working drawings of machine parts from copy and from models, tracing and blue printing. Required of Freshmen not presenting high school credit in mechanical drawing. *First semester. Laboratory. Three credits.* Electrical Building. Kent.

3. FREEHAND DRAWING. Perspective drawings of machines and buildings. Perspective drawings from mechanical drawings. Memory drawings of machines. Isometric drawing. *First semester. One credit.* Education Building. Lewers.

4. MECHANICAL DRAWING. The making of working drawings, principally from models; commercial drawing room practice. For students presenting a year or more of secondary school work in mechanical drawing. Others substitute M. E. 2. *First semester. Laboratory. Two credits.* Electrical Building. Kent.

6. DESCRIPTIVE GEOMETRY. Standard problems on the point, line, plane, curved surface and solid are taken up in lectures and in the drawing room. Special attention is paid to the application of these principles to the problems of the draftsman, and a large number of practical problems are given. *Prerequisite: Mechanical Engineering 2 or 4. Mathematics 13, Plane and Solid Geometry. Second semester. Laboratory, two periods; lecture, one period. Three credits.* Electrical Building. Kent.

9. ADVANCED MECHANICAL DRAWING. An advanced course in machine drawing, which includes the drawing of wiring diagrams and special problems in mining and metallurgy. *Prerequisite: M. E. 6. First semester. Two laboratory periods.* Required of Miners and Electricals. *Two credits.* Electrical Building. Sibley.

21. TECHNICAL REPORT. A systematic write-up of three to four thousand words on some selected or assigned engineering topic. *One credit.* Sibley.

51. KINEMATICS. The kinematics of machinery, showing the laws which govern the velocity of moving parts, the cor-

rect forms of gear teeth, the manner of designing trains of mechanism. *Prerequisite:* Mechanical Engineering 2 and 6. *First semester. Three credits.* Electrical Building. Sibley.

53. MACHINE DESIGN. The study of the application of the laws of velocity, force, and strength of materials to the design of machinery; tooth and belt gearing, shafts, journals, hangars, cylinders, springs, bolts, keys, etc. *Prerequisite:* Mathematics, M. E. 6, and C. E. 72 and 74. *Second semester. Three credits.* Electrical Building. Sibley.

54. BOILERS AND ENGINES. An elementary study of boilers, prime movers, and their auxiliaries, from the standpoint of operation and testing. Includes a study of fuels and their combustion; the laws of steam and other gases which affect the operation of steam and gas engines and turbines. A large number of problems involving the power and efficiency of power-plant apparatus are solved. *Prerequisite:* Physics 4. *First semester. Lectures, three. Three credits.* Electrical Building. Kent.

55-56. THERMODYNAMICS. A study of the thermodynamics of perfect gases, gaseous vapors, and steam, and their application to gas engines, air compressors, refrigerating machinery, steam engines and turbines. *Prerequisite:* Physics, Chemistry, Mathematics, and M. E. 54. *Both semesters. Three credits each semester.* Electrical Building. Sibley.

58. MECHANICS OF HEAT ENGINES. Inertia forces in the moving parts of reciprocating engines, fly-wheel design, valves and valve gearing, governors, aerodynamics. *Prerequisite:* Mathematics, Mechanical Engineering 53 and 54. *Second semester. Three credits.* Electrical Building. Sibley.

64. MECHANICAL LABORATORY. Introductory experimental engineering, calibration of pressure gages, thermometers, indicator springs. Tests for heating values of coal, gas and oil. Analysis of lubricants for viscosity, emulsification, etc. Flue gas analysis and calculations. Tests of automotive carburation and ignition systems. Slide valve setting and use of steam indicators. Reports include complete discussions of equipment and data. Preparation of the report is considered an important part of the course. *Prerequisite:* Physics 3 and 4, 5 and 6. Must be preceded or accompanied by Mechan-

ical Engineering 54. *First semester. Laboratory, one period. Two credits.* Electrical Building. McCarthy. Fee, \$5.

65-66. MECHANICAL LABORATORY. Experimental engineering. Course 65, first semester, required and open only to Seniors in Mechanical and Electrical Engineering. Course 66, second semester, is required of Seniors in Mechanical Engineering and open to Seniors in Electrical Engineering. Complete mechanical and thermal efficiency tests of reciprocating steam engines, steam turbine, steam boilers, gas and oil engines, refrigerating machines, air blowers and compressors, water turbines. Thorough analysis of operating characteristics and methods of testing required in report made on each experiment. *Prerequisite:* Mechanical Engineering 54, 65. Must be preceded or accompanied by Mechanical Engineering 55. *Both semesters. Lecture, one hour; laboratory, one period. Three credits each semester.* Electrical Building. McCarthy. Fee, \$5 each semester.

68. STEAM AND GAS POWER. This course consists of the general study of steam- and gas-power plants with equipments, including steam boilers, gas producers, steam and gas engines, and steam turbines with their accessories; study of the relative costs and advantages of different forms of prime movers, the combustion, handling and storage of fuels used in power plants. For students outside the Schools of Electrical and Mechanical Engineering. Preceded or accompanied by Physics 2 or 4. *First semester. Lectures, three. Three credits.* Electrical Building. This course will be combined with M. E. 54 until further notice.

71-72. ENGINEERING ECONOMIC PROBLEMS. Solution of problems taken entirely from actual engineering practice. It is intended to show the practical importance of engineering theory and to cultivate thoroughness in the examination and administration of engineering projects. *Both semesters. Two credits per semester.* Electrical Building. McCarthy.

75. POWER-PLANT ENGINEERING. A study of the principles involved in the design, construction, and operation of steam- and gas-power plants for mills, factories, and electric generating stations. A lay-out of a plant to meet specified conditions is made in the drawing room. *Prerequisite:* E. E. 51 and 52, M. E. 54 and 64. *First semester. Two recitations and one laboratory period. Three credits.* Kent.

76. AUTOMOTIVE ENGINEERING. A brief course in the princi-

ples of the design and operation of gas engines as applied to motor vehicles. Carburetors, governing, ignition, lubricating systems. *Prerequisite:* M. E. 54. Elective for Juniors and Seniors. *Second semester. Two recitations. Two credits. Kent.*

80. **THESIS.** An original design or an investigation intended to give the student a knowledge of research methods in engineering. This course is elective at the discretion of the instructors in the department. *Second semester. Three credits. Sibley or Assistants. Laboratory fee of \$5 may be required.*

METALLURGY

College of Engineering

PROFESSOR PALMER, HEAD OF DEPARTMENT

PROFESSOR CARPENTER

MR. SMYTH

51. **FIRE ASSAYING.** Lectures, recitations, and laboratory work in assaying. Methods of assaying, systems of weights used, calculations and problems, equipment of assay laboratories, sampling, chemistry of assaying. The assay of gold and silver ores of the simpler types followed by the assay of difficult ores and metallurgical products. *Prerequisite:* Mineralogy 2, Chemistry 9 and 10. *First semester. Laboratory, three periods. Three credits. Mackay School of Mines. Smyth. Fee, \$15. Students who do not complete their laboratory work during the regular periods are required to pay an additional fee to cover the extra cost of such work. This fee will be \$1 per laboratory period for each period the furnaces are used plus the cost of any chemicals, etc., used.*

52. **ADVANCED FIRE ASSAYING.** A laboratory course designed to give the student routine practice in the work met in a commercial assay office. It will include practice in both wet and fire assaying and determination of minerals. Not given for less than three students. *Prerequisite:* Chemistry 10; Metallurgy 51. *First semester. One credit. Mackay School of Mines. Smyth. Fee, \$5.*

54. **METALLURGY OF ALLOYS AND IRON AND STEEL.** A lecture course prepared for students registered in engineering schools other than the School of Mines. The course will cover the physical and chemical properties of metals, and alloys, and the metallurgy of iron and steel. *Prerequisite:* Chemistry 6 and Physics 1a or 8. *Second semester. Two credits. Mackay School of Mines. Smyth.*

55. **GENERAL METALLURGY.** Lectures and recitations on the general principles and practice of metallurgy. This course is designed to take up in a general way historical data regarding the production and use of metals, their importance in the engineering profession; physical and chemical properties of metals, alloys, and metallic compounds; pyrometallurgical apparatus, fuels and refractory materials; outlines of the common metallurgical processes employed in the production of copper, lead, zinc, and the minor metals, and in detail the metallurgy of iron and steel. *Prerequisite:* Chemistry 6 and Physics 1a or 8. *First semester. Three credits. Mackay School of Mines. Smyth.*

56. **METALLOGRAPHY.** This course is designed to cover the methods of preparation and microscopic examination of specimens of some of the common metals and alloys, illustrating the microstructure of pure metals and alloys, the effect of heat treatment in tempering and annealing, cooling curves, the detection of the presence of flaws and defects in metals, a study of welds, and the effects of strain and mechanical treatment. *Prerequisite, or taken with:* Metallurgy 55. *Second semester. Lecture, one hour; laboratory, one period. Three credits. Mackay School of Mines. Palmer. Fee, \$1.*

57. **METALLURGY OF THE MINOR AND RARE METALS.** Lectures and recitations on the metallurgy of minor and rare metals including the following: Antimony, arsenic, aluminum, bismuth, mercury, molybdenum, platinum, tin, and tungsten. *Prerequisite:* Metallurgy 55. *Second semester. One credit. Mackay School of Mines. Palmer.*

60. **METALLURGY OF COPPER, LEAD, AND ZINC.** Lectures and recitations on the metallurgy of copper, lead, and zinc. Properties of the metals and the more important alloys and compounds. Roasting, smelting, converting, leaching, and refining of copper; roasting, smelting, and refining of lead; leaching and smelting of zinc. Three months are devoted to the subject of copper and one month to lead and zinc. *Prerequisite:* Metallurgy 55. *First semester. Three credits. Mackay School of Mines. Palmer.*

65. **ORE DRESSING.** Lectures, recitations, and laboratory practice in ore dressing. Laws of crushing, sizing, and concentration of ores, including flotation. Machines employed and practice in operating them. *Prerequisite:* Chemistry 9

and 10; Metallurgy 51 and 55. *Second semester. Lectures, two hours; laboratory, two periods. Four credits.* Mackay School of Mines. Palmer. Fee, \$5.

70. METALLURGY OF GOLD AND SILVER. Lectures, recitations, and laboratory exercises on the metallurgy of gold and silver. Physical and chemical properties of these metals and of their compounds and alloys. Methods of extracting the precious metals from their ores with special emphasis on the cyanide method. Refining gold and silver. *Prerequisite:* Metallurgy 51 and 65; Chemistry 10. *First semester. Lecture, one hour; laboratory, two periods. Three credits.* Mackay School of Mines. Palmer. Fee, \$10.

71. METALLURGICAL DESIGN. The design of a metallurgical plant including the preparation of working drawings of certain parts of this plant and the solution of the engineering problems connected with it. *Prerequisite:* To be taken at the same time or after completing Metallurgy 70 and Civil Engineering 74. *Second semester. Laboratory, two periods. Two credits.* Mackay School of Mines. Palmer.

72. ELECTROMETALLURGY. Lectures and recitations on electric smelting and the electrolytic processes involved in the metallurgy of the common and precious metals. To be taken at the same time or after completing Metallurgy 60 and 70. *Second semester. Two credits.* Mackay School of Mines. Palmer.

73. PROBLEMS AND SEMINARS. This course covers common technical and economic problems related to the design, operation, and management of metallurgical plants, and a discussion of articles upon metallurgical subjects. Open only to students after they have completed metallurgical subjects to the second semester of the senior year. *Second semester. Two credits.* Mackay School of Mines. Palmer.

74. NONMETALLICS. A lecture course on the preparation for market and the marketing of their products of such non-metallics as cement materials, gypsum, limestone, magnesite, diatomaceous earth, borates, and others that are of importance in Nevada and the Pacific Coast States. *First semester. Two credits.* Mackay School of Mines. Carpenter.

79-80. PROJECT. This course will cover special work of a research nature in connection with some problem in ore treatment or metallurgical plant design. *Both semesters. Two*

credits. Mackay School of Mines. Palmer. Deposit to be arranged according to work undertaken.

180. THESIS. Advanced research work in metallurgy. A graduate course. *Credits to be arranged.* Mackay School of Mines. Palmer. Deposit to be arranged according to work undertaken.

MILITARY SCIENCE AND TACTICS

COLONEL J. P. RYAN, U. S. ARMY, COMMANDANT

CAPTAIN LUTHER N. JOHNSON, U. S. ARMY, ASSISTANT PROFESSOR

SERGEANT HARRY E. BARBER, U. S. ARMY, INSTRUCTOR

The following courses of instruction are prescribed by the War Department for Infantry Units of the Reserve Officers Training Corps:

MILITARY 1-2. Basic Course, First Year—Practical and Theoretical. Rifle marksmanship; military courtesy; military hygiene and first aid; physical drill; command and leadership. Required of all first-year men students. *Three hours per week. Both semesters. One credit each semester.*

MILITARY 2A. Basic Camp Course (elective). No credit.

NOTE—Camps for practical instruction are conducted by the War Department for a period of six weeks during June and July at a Regular Army station. Attendance at the Basic Camp course is voluntary, but all students who expect to take advanced military are urged to attend the camp at the end of the first year of military training. Transportation to and from the camp and all expenses incident to service at the camp are paid by the Government.

MILITARY 3-4. Basic Course, Second Year—Practical and Theoretical. Musketry; scouting and patrolling; interior guard duty; automatic rifle; command and leadership. Required of all second-year men students. *Three hours per week. Both semesters. One credit each semester.*

MILITARY 51-52. First Year Advanced Course (elective)—Practical and Theoretical. Map reading and military sketching; military field engineering and combat principles; machine gun; military law; land warfare; command and leadership. *Five hours per week. Both semesters. First semester, two credits; second semester, three credits.*

MILITARY 53A. Advanced Camp Course. *Two credits.*

NOTE—Students taking advanced military and receiving a daily money allowance from the Government are required to attend a camp of instruction for a period of six weeks at the end of the third year. Under exceptional circumstances attendance at the camp may be deferred until the end of the fourth year. Students

attending the advanced camp course receive pay at the rate of \$21 per month from the U. S. Government.

MILITARY 53-54. Second year Advanced Course (elective)—Practical and Theoretical. Infantry weapons; Military History of United States and National Defense Act; company administration; combat principles; command and leadership. *Five hours per week. Both semesters. Two credits first semester; three credits second semester.*

MILITARY BAND. Students enrolled in Military and assigned to the band will receive credit for required Military at the rate of one credit for each semester. Such students will be required to attend at least two periods of band practice per week, and will attend military formations when the band is required for parades and other military ceremonies.

MINERALOGY

PROFESSOR JONES, HEAD OF DEPARTMENT

MR. GRAWE

1. **DETERMINATIVE MINERALOGY.** The first few weeks are devoted to an elementary course in crystallography, followed by the determination of the more common minerals, chiefly by means of their physical properties, using such simple tests as are of easy application in the field. *Prerequisite:* Chemistry 1, or an entrance credit in Chemistry. *First semester. Two credits.* Mackay School of Mines. Grawe. Fee, \$2.

2. **BLOWPIPE ANALYSIS.** The determination of minerals by blowpipe analysis. *Prerequisite:* Chemistry 1 or an entrance credit in Chemistry. *Second semester. Two credits.* Mackay School of Mines. Grawe. Fee, \$3.

51. **ADVANCED MINERALOGY.** Advanced work in either blowpipe analysis, crystallography, or the determination of minerals under the microscope. *Prerequisite:* Mineralogy 1 and 2. *Either semester. One or two credits.* Mackay School of Mines. Jones and Grawe.

MINING

College of Engineering

DIRECTOR FULTON, HEAD OF DEPARTMENT

PROFESSOR JONES

PROFESSOR PALMER

PROFESSOR CARPENTER

MR. SMYTH

MR. COUCH

5. **PRACTICAL MINING.** Practical work in mining or metal-

lurgy during the summer vacation. Such work must extend over a period of at least one month, and a satisfactory report must be prepared upon it. *Freshman, Sophomore, or Junior vacation. Required for graduation. No credit.*

45. **MINING.** Elementary mining lectures and recitations on the general principles and practice of mining. The course is designed to give others than mining students a brief insight into general mining practice. *Prerequisite:* Sophomore standing. *First semester, three credits.* Mackay School of Mines. Fulton and Carpenter.

51. **EXCAVATION.** Lectures and recitations on the principles and practice of excavation. Earth excavation, explosives, rock excavation, tunneling, shaft sinking, and boring. *Junior year. First semester. Three credits.* 100 Mackay School of Mines. Carpenter.

52. **MINE PLANT.** Lectures on the principles and practice of underground haulage, hoisting, surface transportation, mine drainage, ventilation, illumination, and general discussion of steam, gas, electric and compressed air plants. *Prerequisite:* Physics 8, 9, 10 and 11, 12, 13. *Junior year. Second semester. Three credits.* 100 Mackay School of Mines. Carpenter.

61. **MINING METHODS.** Lectures and recitations on the prospecting, development, and exploitation of mineral deposits, including underground metal-mining methods in detail, open-cut methods, coal-mining methods in brief, and placer-mining methods. *Prerequisite:* Mining 51 and 52. *Senior year. First semester. Three credits.* 100 Mackay School of Mines. Fulton and Carpenter.

72. **MINE ADMINISTRATION.** Lectures and recitations on the business, sociology, and law of mining, including mine organizations and accounts, welfare work, mine hygiene, accidents and their prevention, mine maps and models, and mining law. *Prerequisite:* Mining 61. *Senior year. Second semester. Three credits.* Carpenter and Couch.

74. **MINING—MINERAL INDUSTRY ECONOMICS.** Lectures and recitations on economic problems of mining and metallurgical operations, including incorporations and securities; costs of mining, milling, and marketing; compensation, accident, and fire insurance; depreciation, depletion and taxes; wages, supplies, and power; and the purchase and sale of ores and metallurgical products. *Prerequisite:* Economics

65. *Senior year, second semester, three credits.* Fulton and Carpenter.

89-90. MINING PROJECT. Two laboratory periods weekly devoted to individual problems in seeking, opening, and working imaginary mines supposed to be located in important mining camps. *Prerequisite:* Mining 51-52. *Both semesters. Two credits each semester.* Fulton and Carpenter.

99-100. MINING RESEARCH. Research work in mining or some allied subject. An elective course for students who, in the opinion of the instructor, are capable of undertaking research. *Both semesters. Two credits each semester.* Mackay School of Mines. Fulton and Carpenter.

101. MINE EXAMINATION. Lectures on the examination of metal mines and prospects. Sampling, estimation of ore, valuation of properties, forms of reports. A graduate course open as an elective to undergraduates who are suitably prepared. *Either semester. Two credits.* 102 Mackay School of Mines. Fulton and Carpenter.

199-200. THESIS. Advanced research work in mining, metallurgy, geology, or some allied science. A graduate course. *Both semesters. Four credits each semester. Total course only accepted toward degree.* Mackay School of Mines. Fulton and Carpenter.

MODERN LANGUAGES

PROFESSOR CHAPPELLE, HEAD OF DEPARTMENT

PROFESSOR MURGOTTEN

ASSISTANT PROFESSOR WILLIAMS

ASSISTANT PROFESSOR GOTTARDI

GRADUATE ASSISTANT

Requirements for a minor in a modern language: With no admission credit, 6 units. With two admission credits, 10 units. With four admission credits, 12 units.

Requirements for a major in modern language: With no admission credit, 12 units. With two admission credits, 16 units. With four admission credits, 18 units.

Requirements for a combined minor in Modern Languages (units in any two modern languages may be counted towards a combined minor): With no admission credit, 8 units. With two admission credits, 12 units. With four admission credits, 14 units.

Requirements for a combined major in Modern Languages (units in any two modern languages may be counted towards a combined major): With no admission credit, 14 units. With two admission credits, 18 units. With four admission credits, 20 units.

(The term "units," as used above applies only to units in courses numbered above 50.)

Students planning to present for graduation a combined major or minor in Modern Languages may be allowed to register for an extra hour of academic work in the Freshman year.

The two parts of any beginning language course must be taken in immediately consecutive semesters.

Students intending later to teach Modern Languages are urged not to restrict their courses to the minimum requirements for a major or a minor in the particular subjects. All such candidates are to confer with the head of the department.

Courses numbered above 50 and announced as offered in any year may not be given in that year unless there are at least seven candidates for the class.

The office of the Department of Modern Languages is 102 Stewart Hall.

Arabic

61-62. INTRODUCTION TO ARABIC. A study of the grammar of the written language. Lectures, assigned reading and reports on Mohammedan literature, history, and institutions. Open to advanced students of languages. *Both semesters. Two credits each semester.* Murgotten.

101-102. SECOND-YEAR ARABIC. Grammar continued. Translation of selections from the Quran and Arat historians. *Prerequisite:* Arabic 61-62. *Both semesters. Two credits each semester.* (Not given in 1927-1928.)

French

1. FIRST YEAR FRENCH. Drill in the essentials of grammar. Elementary composition and conversation. *Either semester. Three credits.* Chappelle and Gottardi.

2. FIRST YEAR FRENCH (Continued). Grammar, composition and conversation. Translation of simple prose texts. *Prerequisite:* French 1 or one year of high school French. *Either semester. Three credits.* Chappelle and Gottardi.

3-4. SECOND YEAR FRENCH. Readings from modern French prose writers. A review of grammar. Conversation and composition. *Prerequisite:* French 1-2 or two years of high school French. *Both semesters. Three credits each semester.* Chappelle and Gottardi.

3A-4A. The same as French 3-4 with the exception that this class meets only once a week. Intended primarily for teachers in active service in the public schools. *Both semesters. One credit each semester.* Chappelle and Gottardi.

51-52. THE FRENCH NOVEL. Rapid reading of masterpieces of French fiction: Balzac, Sand, Mérimée, Zola, Dau-

det, etc. *Prerequisite:* French 3-4. *Both semesters. Two credits each semester.* (Not given in 1927-1928.)

53-54. FRENCH POETRY. A study of the French lyric poets from Villon to contemporary writers. *Prerequisite:* French 3-4. *Both semesters. Two credits each semester.* (Not given in 1927-1928.)

55-56. INTERMEDIATE FRENCH COMPOSITION AND CONVERSATION. This course should be taken simultaneously with the first year of Junior-Senior reading courses in French. *Prerequisite:* French 3-4. *Both semesters. One credit each semester.* Gottardi.

57-58. GENERAL SURVEY OF FRENCH LITERATURE. The history of French literature with detailed study of special periods. Assigned outside readings and reports on works read. *Prerequisite:* Four credits of Junior-Senior work. *Both semesters. Two credits each semester.* (Not given in 1927-1928.)

59-60. SCIENTIFIC FRENCH. Readings from standard French works on science and from recent numbers of French scientific magazines. This course is particularly recommended to premedical students and to those who intend to specialize in any one of the scientific fields. *Prerequisite:* French 3-4. *Both semesters. Two credits each semester.* Chappelle.

69. FRENCH CLASSIC DRAMA. A special study of the works of Corneille, Racine and Molière. *Prerequisite:* French 3-4. *First semester. Two credits.* Murgotten.

70. FRENCH ROMANTIC DRAMA. A study of the drama of the romantic school with special reference to the works of Victor Hugo. *Prerequisite:* French 3-4. (It is advised that students take French 69 before electing French 70.) *Second semester. Two credits.* Murgotten.

73-74. ADVANCED FRENCH COMPOSITION AND CONVERSATION. Includes a study of French epistolary style and commercial correspondence. This course should be taken simultaneously with the second year of Junior-Senior reading courses in French. *Prerequisite:* French 3-4. *Both semesters. One credit each semester.* Gottardi.

81-82. THE EIGHTEENTH CENTURY IN FRENCH LITERATURE. A study of the works of Montesquieu, Voltaire, Rousseau, etc. *Prerequisite:* Four credits of Junior-Senior

work. *Both semesters. Two credits each semester.* Chappelle.

90. FRENCH PHONETICS. A study of pronunciation on the basis of practical phonetics. This course is especially arranged for prospective teachers of French. *Prerequisite:* Two units of Junior-Senior work. *Second semester. Two credits.* Gottardi.

German

1. FIRST YEAR GERMAN. A systematic study of grammar. *First semester. Three credits.* Murgotten.

2. FIRST YEAR GERMAN (Continued). Grammar and composition. Reading of easy prose and poetry. *Prerequisite:* German 1, or one year of high school German. *Second semester. Three credits.* Murgotten.

3. INTERMEDIATE GERMAN. Grammar review. Reading of German short stories, with exercises in conversation and composition. *Prerequisite:* German 1-2, or two years of high school German. *First semester. Three credits.* Murgotten.

4. INTRODUCTION TO SCIENTIFIC GERMAN. This course follows immediately upon German 3, but the texts chosen for reading will be such as to prepare for, and give practice in translating scientific German. *Prerequisite:* German 3, or three years of high school German. *Second semester. Three credits.* Murgotten.

51-52. THE GERMAN NOVEL. Rapid reading of masterpieces of German fiction: Scheffel, Baumbach, Sudermann, Thomas Mann. *Prerequisite:* German 3-4. *Both semesters. Two credits each semester.* Murgotten.

57-58. GENERAL SURVEY OF GERMAN LITERATURE. The history of German literature with detailed study of special periods. Assigned readings and reports on works read. *Prerequisite:* Four credits of Junior-Senior work. *Both semesters. Two credits each semester.* (Not given in 1927-1928.)

69-70. GERMAN CLASSICS. Reading and technical study of representative works of Lessing, Schiller, and Goethe. *Prerequisite:* German 3-4. *Both semesters. Two credits each semester.* (Not given in 1927-1928.)

79-80. ADVANCED COMPOSITION. A study of German epistolary style, business correspondence, free composition. This

course should be taken simultaneously with the Junior-Senior reading courses, and is required of majors in German. *Both semesters. One credit each semester. Murgotten.*

Italian

1-2. FIRST YEAR ITALIAN. Grammar, composition, and conversation. Reading of modern Italian prose. *Both semesters. Three credits each semester. Chappelle.*

51-52. THE ITALIAN NOVEL. Rapid reading of masterpieces of modern Italian fiction: Manzoni, Fogazzaro, Verga, etc. *Prerequisite: Italian 1-2. Both semesters. Two credits each semester. (Not given in 1927-1928.)*

53-54. ITALIAN LITERATURE OF THE EIGHTEENTH AND NINETEENTH CENTURIES. Reading of important works of prose and poetry of the period, with a study of literary movements. *Prerequisite: Italian 1-2. Both semesters. Two credits each semester. Gottardi.*

55-56. INTERMEDIATE COMPOSITION. *Prerequisite: Italian 1-2. Both semesters. One credit each semester. Gottardi.*

Portuguese

61-62. INTRODUCTION TO PORTUGUESE. A study of grammar. Reading of texts on Brazilian subjects. Conversation based on the Brazilian norm. *Prerequisite: Four units of Junior-Senior work in any one other Romanic language. Both semesters. Two credits each semester. (Not given in 1927-1928.)*

Spanish

1. FIRST YEAR SPANISH. Drill in the essentials of grammar. Elementary composition and conversation. *Either semester. Three credits. Williams and Gottardi.*

2. FIRST YEAR SPANISH (Continued). Grammar, composition and conversation. Translation of simple prose and poetry. *Prerequisite: Spanish 1 or one year of high school Spanish. Either semester. Three credits. Williams and Gottardi.*

3-4. SECOND YEAR SPANISH. Readings from modern Spanish writers. A review of grammar. Conversation and composition. *Prerequisite: Spanish 1-2 or two years of high school Spanish. Both semesters. Three credits each semester. Chappelle, Williams, Gottardi.*

3A-4A. The same as Spanish 3-4 with the exception that this class meets only once a week. Intended primarily for teachers in active service in the public schools. *Both semes-*

ters. One credit each semester. Chappelle, Williams, Gottardi.

51-52. THE SPANISH NOVEL. Rapid reading of masterpieces of Spanish fiction: Galdós; Valdés; Ibáñez; etc. *Prerequisite: Spanish 3-4. Both semesters. Two credits each semester. Gottardi and Williams.*

53. COMMERCIAL AND JOURNALISTIC SPANISH. Readings dealing primarily with Spanish-American social and economic conditions. *Prerequisite: Spanish 3-4. First semester. Two credits. Williams.*

55. COMMERCIAL CORRESPONDENCE. A composition course to accompany Spanish 53. *Prerequisite: Spanish 3-4. First semester. One credit. Williams.*

56. INTERMEDIATE SPANISH COMPOSITION AND CONVERSATION. This course should be taken with the first year of Junior-Senior reading courses in Spanish. *Prerequisite: Spanish 3-4. Second semester. One credit. Williams.*

57-58. GENERAL SURVEY OF SPANISH LITERATURE. The history of Spanish literature with detailed study of special periods. Assigned outside readings and reports on works read. *Prerequisite: Four credits of Junior-Senior work. Both semesters. Two credits each semester. Williams.*

70. MODERN SPANISH DRAMA. A study of Spanish dramatic literature from the Golden Age to the Twentieth Century. *Prerequisite: Spanish 3-4. Second semester. Two credits. Williams.*

79-80. ADVANCED SPANISH PROSE COMPOSITION AND CONVERSATION. This course should be taken simultaneously with the second year of Junior-Senior reading courses in Spanish. *Prerequisite: Spanish 3-4. Both semesters. One credit each semester. Murgotten and Williams.*

81-82. SPANISH CLASSICS. Literature of the Sixteenth and Seventeenth Centuries—Cervantes; Lope de Vega; Tirso de Molina; etc. *Prerequisite: Four credits Junior-Senior work. Both semesters. Two credits each semester. Williams and Murgotten.*

MUSIC

PROFESSOR POST

ASSOCIATE PROFESSOR KENT

Requirements for a minor in Music: 1-2, 5, 10, 11-12, 50-51, 54-55, 57.

FOR ELEMENTARY TEACHERS

1-2. ELEMENTS OF MUSIC. Learning to read and to sing

the simple music appropriate for children of rural schools. Notation and terminology, intervals, and other technique growing out of the above work, so far as may be necessary and possible to equip teachers to handle the music in the rural schools. *Both semesters. One credit each semester.* 204 Education Building. Post.

5. METHODS. The presentation through class work of elementary problems: Care of child voice; principles of conducting; lesson plans; music appreciation; ear and eye training; and less musical children. *Prerequisite:* Music 1-2. *First semester. Two credits.* 204 Education Building. Post.

OPEN TO ALL STUDENTS

10. MUSIC APPRECIATION. A study of various forms of vocal and instrumental music with the purpose of development in musical appreciation. *First semester. Two credits.* 204 Education Building. Post.

11-12. Section A. WOMEN'S GLEE CLUB. Membership open to all students who can pass entrance requirements. *Both semesters. One-half credit each semester.* 204 Education Building. Post.

11-12. Section B. MEN'S GLEE CLUB. For a general description of this course, see Section A. 204 Education Building. Post.

15-16. Section A. ORCHESTRA. *Both semesters. One-half credit each semester.* 204 Education Building. Post.

15-16. Section B. CHAMBER MUSIC. For advanced students. *Both semesters. One-half credit each semester.* 204 Education Building. Post.

17-18. BAND. See under Military for a description of the requirements and credits for this work. Civilian members of the Band may receive corresponding credit in the Music Department if they meet those requirements. Kent.

50-51. HARMONY. Major and minor scales; intervals; harmonization in four voices employing primary and secondary chords; construction of melodies and accompaniments; modulation; embellishments; imitation; cadences; simple analysis. *Prerequisite:* Music 1-2. *Both semesters. Three credits each semester.* 204 Education Building. Post.

52. ADVANCED HARMONY. Altered chords; sequences; analysis; simple composition. *Prerequisite:* Music 50-51.

First semester. Three credits. 204 Education Building. Post.

54-55. GLEE CLUB. For general description see Music 11-12. *Prerequisite:* Music 11-12. *One-half credit each semester.* 204 Education Building. Sec. A, Post; Sec. B, Post.

57. HISTORY OF MUSIC. Lecture course with collateral readings. Outline of the evolution of music by periods; lives of composers; fully illustrated. *Second semester. Two credits.* 204 Education Building. Post.

59-60. Section A. ORCHESTRA. For description see Music 15-16. *Prerequisite:* Music 15-16. *One-half credit each semester.* 204 Education Building. Post.

59-60. Section B. CHAMBER MUSIC. For advanced students. *One-half credit each semester.* 204 Education Building. Post.

63-64. BAND. For general description, see Music 17-18. *Prerequisite:* Music 17-18. Kent.

PHILOSOPHY

PROFESSOR THOMPSON, HEAD OF DEPARTMENT

Requirements for a major in Philosophy: Psychology 5, Philosophy 7 or 8 and 21, and 12 units in courses 51 to 100.

Requirements for a minor in Philosophy: Psychology 5, Philosophy 7 or 8 and 21, and 6 units in courses 51 to 100.

1. INTRODUCTION TO PHILOSOPHY. A brief study of the problems of philosophy with the solutions suggested by the various schools. Designed both for the student who wishes a perspective for further work in philosophy, and for the student who desires a general knowledge of the scope and methods of philosophy. *No prerequisite. Either semester. Two credits.* Education Building. Thompson.

7. DEDUCTIVE LOGIC. Terms, definition, division, syllogism and fallacies. Text, lectures and exercises. *No prerequisite. First semester. Three credits.* Education Building. Thompson.

8. INDUCTIVE LOGIC. The assumptions of induction methods of scientific investigation, fallacies, the tests of truth. Text, lectures and exercises. *No prerequisite. Second semester. Three credits.* Education Building. Thompson.

21. ETHICAL THEORIES. A study of the leading theories of moral principles and ideals. Among the topics discussed will be the concept of the good, duty, egoism, altruism, freedom,

responsibility, and the doctrine of virtues. Open to Sophomores. *First semester. Three credits.* Education Building. Thompson.

22. APPLIED ETHICS. The application of ethical theory to typical problems of institutional life, property, and the family. Open to Sophomores. *Second semester. Three credits.* Education Building. Thompson.

28. SOCIAL ETHICS. A brief study of the fundamental ethical principles based upon concrete social problems. Required of Sophomores in the two-year Normal course. *Second semester. Two credits.* Education Building. Thompson.

51. HISTORY OF ANCIENT PHILOSOPHY. A study of Greek and Roman Philosophy, and of Medieval Philosophy to the decline of scholasticism. *Prerequisite:* One course in Philosophy. *First semester. Two or three credits according to the work done.* Education Building. Thompson.

52. HISTORY OF MODERN PHILOSOPHY. A study of the problems and concepts of philosophy from Descartes to the present time. *Prerequisite:* One course in Philosophy. *Second semester. Two or three credits according to the work done.* Education Building. Thompson.

53-54. PHILOSOPHICAL TENDENCIES OF THE PRESENT. A review and criticism of the main tendencies in present philosophical thought with reference to concrete social problems. Special attention will be given to absolutism, pragmatism, pluralism, and the philosophy of James. *Prerequisite:* One course in Philosophy. *Both semesters. Two credits each semester.* Alternates with Philosophy 51 and 52. Education Building. Thompson.

61. INTRODUCTION TO RELIGION. A study of the forms and psychological aspects of religious experience with special reference to typical historic religions. *Prerequisite:* One course in Philosophy or Education 5. *First semester. Two to three credits according to work done.* Education Building. Thompson.

62. PHILOSOPHY OF RELIGION. The meaning and validity of religious experience. Among the topics discussed will be the religious conception of God, the world, revelation, faith, prayer, evil, immortality. *Prerequisite:* One course in Philosophy and Psychology 5. *Second semester. Two or three*

credits according to the work done. Education Building. Thompson.

83-84. METAPHYSICS. A constructive study of the problems of being, unity, order, and individuality, with practical applications of the theory developed. *Prerequisite:* Two courses in Philosophy and Psychology 5. *Both semesters. Two credits each semester.* Education Building. Thompson.

100. RESEARCH COURSE. The thesis may be selected in any field of Philosophy. For Seniors only. *Prerequisite:* The equivalent of a minor in Philosophy. *Either semester. Two credits.* Education Building. Thompson.

PHYSICAL EDUCATION

Women

ASSOCIATE PROFESSOR SAMETH, HEAD OF DEPARTMENT
MISS WEBER

Requirements of a minor in Physical Education: It is recommended that students desiring a minor in Physical Education fulfill their science requirement in Biology. Courses—Physical Education 1, 2, 3, 4, 10, 31, 32, 55, 56, 59, 60, 63, 64 and two years of participation in Athletics.

1-2. FRESHMAN PRACTICE. Free work, light apparatus, games and dancing. Students who, upon examination, give evidence of ability to take advanced work, will be permitted to do so, and also to choose some of their activities. *Three periods. Both semesters. One credit each semester.* Gymnasium.

3-4. SOPHOMORE PRACTICE. Continuation of Physical Education 1-2. *Two periods. Both semesters. One-half credit each semester.* Gymnasium.

5-6. FRESHMAN CORRECTIVE GYMNASTICS (Practice). To be required instead of Physical Education 1-2 of all students who, upon examination show need of it. *Four 20-minute periods a week. One credit each semester.* Gymnasium.

7-8. SOPHOMORE CORRECTIVE GYMNASTICS (Practice). Continuation of Physical Education 5-6. May take the place of Physical Education 3-4. *Three 20-minute periods a week. One-half credit each semester.* Gymnasium.

10. MATERIAL COURSE. Required of students in Education and of Physical Education minors. The object of this course is to give those who intend to teach, simple games, folk dances and setting-up drills suitable for use in the grades and

enough theory to get an intelligent viewpoint on the physical education of the present day. There will be one lecture or recitation dealing with the meaning of Physical Education as a part of the life of the school child. The second period will be used for practical work. *Prerequisite:* Physical Education 1-2 or the equivalent. *Two periods. One semester. One credit.* Gymnasium.

31-32. DANCING. Dancing, including national, classical, folk and interpretative. Open to all who have had the equivalent of Physical Education 1-2. *Three periods. Both semesters. One credit each semester.*

53-54. ADVANCED DANCING. A continuation of Physical Education 31-32. This course will include interpretative dancing and the construction of at least one festival or pageant, as well as at least two dances. *Prerequisite:* Music 10 or its equivalent. *Three periods. Both semesters. One credit each semester.*

55. KINESIOLOGY. *Prerequisite:* Physical Education 1-2 and 3. The chief object of this course is to familiarize the student with the mechanism of the human body, dealing particularly with the shoulder, girdle, spine, pelvis, and feet, so that the student will be prepared to study intelligently cases of round shoulders, spinal curvature, and flat feet. *Three periods. First semester. Three credits.* Gymnasium.

56. CORRECTIVE GYMNASTICS. Anthropometry and corrective gymnastics. *Prerequisite:* Physical Education 55. The course is intended to be a practical application of Physical Education 55. Students will be given the opportunity to prescribe exercises for students taking Physical Education 5-6, 7-8. Each student will be expected to measure at least two adults and three children. *Three periods. Second semester. Two credits.* Gymnasium.*

59-60. THEORY AND PRACTICE OF DIRECTING TEAM SPORTS. *Prerequisite:* At least two years participation in college athletics. This course includes a study of the essentials of the technic and game forms leading up to completely organized games of soccer, hockey, volley ball, basket ball, and baseball. Actual practice in teaching and officiating is given. *Two lecture periods per week; two laboratory periods twice per week. Four credits for the year.*

61. THEORY AND PRACTICE OF DIRECTING INDIVIDUAL

*Not given in 1927-1928.

SPORTS. *Prerequisite:* At least two years participation in two of the individual sports in college. This course includes instruction in the essentials of fundamental technic, and methods of teaching the same in tennis, archery, and track. The making and care of archery tackle is also included. *One lecture period per week; one laboratory period per week. One credit.*

62. A comparative study of athletic contests, with special emphasis on tournament, May Day festival, and play day forms. *One lecture period per week; one laboratory period per week. One credit.* To be taken with or before Education 56.

63-64. PRINCIPLES OF PHYSICAL EDUCATION. Their development in relation to general education, health education, play, and recreation. *Prerequisite:* Home Economics 33. *First semester, two periods; second semester, one period. Three credits for the year.*

RECREATION. All women, whether registered for Physical Education courses or not, are given an opportunity to receive instruction and to participate in soccer, hockey, tennis, archery, rifle, volley ball, basket ball, and baseball or track. In addition to these activities all classes in floor work or dancing are open to any who wish to attend *without* University credit. The only requirements for these activities are physical fitness and regular attendance.

PHYSICAL EDUCATION

Men

ASSOCIATE PROFESSOR MARTIE
MR. SHAW

Requirements for a minor in Physical Education: Courses 1, 2, 3, 4, or equivalent, 9, 10, and ten units in courses above 50. Participation in at least one major sport. In meeting the College requirement in Science and Mathematics, Hygiene 7 and 8 is strongly recommended.

1. DEVELOPMENTAL EXERCISES. Physical examinations are required at the beginning of the semester. Strength tests are given at beginning and again at end of semester. Practical work consists in Mass Athletics; games selected with a view of developing alertness, coordination, muscular control, vigor and rythm. When the weather permits, the work is done out of doors. *Freshman year. (Required.) First semester. Two hours per week. One-half credit.*

2. DEVELOPMENTAL EXERCISES. Continuation of course 1 with addition of calisthenics and light apparatus. *Second semester. One-half credit.*

3. ADVANCED EXERCISES. Strength tests will be continued as in Freshman year. Practical work consists in mat work, tumbling, heavy apparatus using long and short horse and buck. *Sophomore year. (Required.) First semester. Two hours per week. One-half credit.*

4. ADVANCED EXERCISES. Continuation of course 3. Heavy apparatus consisting of work with parallel bar, low and high horizontal bars, ladder and stall bar. *Second semester. One-half credit.*

By obtaining consent of the Director of the Department a student may elect any of the following sports as a substitute for the practical work in courses 1, 2, 3, and 4: Football, basket ball, track, tennis, volley ball, cross country and hand ball. *First semester. Two hours per week. One-half credit.*

5-8. SPECIAL CORRECTIVE EXERCISES. This course is designed for all Freshmen and Sophomores whose physical examinations show they are unfitted to take courses 1, 2, 3, and 4. *One-half credit for each semester's work up to and including four semesters.*

9. ADVANCED WORK (paralleling courses 3 and 4.) *Aim:* To develop squad leaders and to assist men to qualify for a state certificate to teach physical education in high schools. *First semester. Three hours per week. One hour credit. Martie.*

10. CONTINUATION OF COURSE 9. *Second semester. Three hours per week. One hour credit. Martie.*

51. FOOTBALL IN THEORY AND PRACTICE. A course of lectures and practical demonstrations for those who may wish to coach, or for players who are out for the varsity or for those who are interested in and wish a more intimate knowledge of America's greatest game. Open only to Juniors or Seniors who have had two or more years' college experience in this sport. *First semester. One lecture per week and one hour laboratory. Two credits. Not given unless eight or more are enrolled. Shaw.*

52. BASKET BALL IN THEORY AND PRACTICE. A course of lectures and practical demonstrations in America's leading winter indoor sport. *Second semester. One lecture and one*

hour laboratory per week. Two credits. The same conditions for enrollment must be met as in course 51. Martie.

53. TREATMENT OF ATHLETIC INJURIES. This is a course in first aid with special emphasis on common athletic injuries. It will include the various uses of tape, bandages, splints, etc. Time will be given to the study of the prevention of injuries such as sprains, charley horse, tackle shoulder, blood poison, blisters, etc., as well as treatment for same. *Three periods per week. Two credits. First semester.*

54. TRACK AND FIELD ATHLETICS. Lectures and demonstrations on each track and field event. *Second semester. One lecture and one hour laboratory per week. Two credits. The same conditions for enrollment must be met as in course 51. Martie.*

55. PLAYGROUND. *Prerequisite:* Physical Education 53. A study of playground methods, apparatus, and organization. Special attention is given to group games for all ages. Also to the "Gang" problem as related to playground. *Three periods per week. Two credits. First semester.*

56. ANTHROPOMETRY. This is a course in physical measurements and methods of detecting physical defects. It will include practical use of charts in connection with physical development. *Three periods per week. Two credits. Second semester.*

57. OFFICIATING MAJOR SPORTS. A careful study of the rules of football, basket ball, and track, with interpretations, methods of officiating, and characteristics of officials. *Three periods per week. Two credits. First semester.*

58. ADMINISTRATION AND ORGANIZATION OF HIGH SCHOOL ATHLETICS. A course covering high school competition in general, methods of organizing athletic associations and administration of same. *Three periods per week. Two credits. Second semester.*

PHYSICS

PROFESSOR HARTMAN, HEAD OF DEPARTMENT
ASSOCIATE PROFESSOR BLAIR
ASSISTANT PROFESSOR LEIFSON

Requirements for a minor in Physics: Mathematics 7, 11, and 13 (unless these are offered for admission), and 14; Physics 1a-2a, 1b-2b (unless Physics is offered for admission), 8-10 and 11-13.

Requirements for a major in Physics: Mathematics 7, 11, and 13 (unless these are offered for admission), and 14, Physics 1a-2a, 1b-2b (unless Physics is offered for admission), 8-10, 11-13, and four additional units approved by the department.

Requirement for a teacher's recommendation in Physics: a major or a minor in the department.

1A-2A. GENERAL PHYSICS. A course in general physics primarily for students in arts and science, medicine, agriculture, and civil engineering. Lectures and recitations with experimental demonstrations and problem work. No credit for either semester of this course will be given unless accompanied by the corresponding course in Physics 1b-2b. *Prerequisite:* Plane Geometry. A knowledge of trigonometry is desirable. *Both semesters. Three credits each semester.* 201 Physics Building. Blair.

1B-2B. GENERAL PHYSICS LABORATORY. A laboratory course in general physics for students in arts and science, medicine, agriculture, and civil engineering, to accompany Physics 1a-2a. Experimental work, largely quantitative in character and designed to illustrate fundamental physical principles and to develop skill and accuracy in the methods of physical measurement. No credit for either semester will be given unless accompanied by the corresponding course in Physics 1a-2a. *Prerequisite:* Plane Geometry. A knowledge of trigonometry is desirable. *Both semesters. One credit each semester.* 103 and 109 Physics Building. Blair. Fee, \$3.

7. DESCRIPTIVE ASTRONOMY. A brief course in astronomy designed to acquaint the student with the most important facts relating to the heavenly bodies. The object of the course is to make the student an intelligent observer of the more common astronomical phenomena. Descriptive rather than mathematical in character. Not open to Freshmen and not accepted as part of Freshman science requirement. *Second semester. Three credits. Three recitations or equivalent in lectures and observational work, depending upon weather conditions.* 201 Physics Building. Blair.

8-10. GENERAL PHYSICS FOR ENGINEERS:

8. Lecture and recitations in mechanics of solids, liquids and gases, properties of matter and heat, illustrated by experimental lecture room demonstrations and assigned problems. *Prerequisite:* Mathematics 7, 11, 13, and 14, high school physics or Physics 1a-2a and 1b-2b. *First semester. Four credits.* 201 Physics Building. Hartman and Leifson.

9. Lectures and recitations in electricity and magnetism

and sound, illustrated by experimental lecture room demonstrations and assigned problems. *Prerequisite:* Mathematics 7, 11, 13 and 14, high school physics or Physics 1a-2a and 1b-2b, Physics 8. *Second semester. Four credits.* 201 Physics Building. Hartman and Leifson.

10. Lectures and recitations in wave motion and light, illustrated by experimental lecture room demonstrations and assigned problems. *Prerequisite:* Mathematics 7, 11, 13, and 14, high school physics or Physics 1a-2a and 1b-2b, Physics 8. *First semester. Two credits.* 201 Physics Building. Hartman and Leifson.

11-13. PHYSICAL MEASUREMENTS. The experiments involve fundamental physical principles, and illustrate their most important applications:

11. Experimental work of distinctly quantitative character in mechanics of solids, liquids and gases, properties of matter and heat. *Prerequisite:* Mathematics 7, 11, 13, and 14, Physics 1a-2a and 1b-2b or high school physics. *First semester. Two credits.* 103 and 109 Physics Building. Blair, Hartman, and Leifson. Fee, \$3.

12. Experimental work of distinctly quantitative character in electricity and magnetism and sound. *Prerequisite:* Mathematics 7, 11, 13, 14, Physics 1a-2a and 1b-2b or high school physics, Physics 8 and 11. *Second semester. Two credits.* 103 and 109 Physics Building. Blair, Hartman, and Leifson. Fee, \$3.

13. Experimental work of distinctly quantitative character in wave motion and light. *Prerequisite:* Mathematics 7, 11, 13, and 14, Physics 1a-2a and 1b-2b or high school physics, Physics 8 and 11. *First semester. Two credits.* 103 and 109 Physics Building. Blair, Hartman, and Leifson. Fee, \$3.

19-20. HOUSEHOLD PHYSICS. A course in general physics for students in home economics. The practical applications of physics in the home will be emphasized. *Prerequisite:* A thorough knowledge of elementary algebra and plane geometry. *Both semesters. Lecture, recitation and quiz, two hours; laboratory, one period. Three credits each semester.* 103 and 201 Physics Building. Blair. Fee, \$3.

57-58. ELECTRICAL MEASUREMENTS. Precise measurements of current electromotive force and power, with both alternating and direct current. Calibration of instruments, determination of resistance, capacity, mutual inductance, and

self-inductance, Hysteresis, Photometry, Illumination. One hour each week will be devoted to discussion and recitation. *Prerequisite:* Physics 8-10 and 11-13. *Either semester. One or two credits per semester.* 103, 109, and 201 Physics Building. Hartman and Leifson. Fee, \$3.

59-60. HEAT AND THERMODYNAMICS. Lectures and recitations accompanied by experimental work of a quantitative character. This course, together with Physics 61-62, is introductory to Mathematical Physics. Many of the more difficult subjects merely touched upon in Physics 1a-2a, 1b-2b, or 3-4, will be fully treated. (Alternates with Physics 61-62.) *Prerequisite:* Physics 1a-2a, 1b-2b, or 8-10 and 11-13, and Mathematics 14, 25, and 26. *Both semesters. Two credits each semester.* 201 Physics Building. Hartman.

61-62. LIGHT AND PHYSICAL OPTICS. Lectures; experimental illustration on selected topics in light, including discussion of wave theory, diffraction, interference, resolving power of optical instruments, dispersion and absorption, spectrum analysis, double refraction, and polarization. (Alternates with Physics 59-60.) *Prerequisite:* Physics 8-10 and 11-13; Mathematics 14, 25, and 26. *Both semesters. Two credits each semester.* 201 Physics Building. Hartman and Blair.

63. PHYSICAL OPTICS. Laboratory exercises in connection with course 61-62. *First semester. Two credits.* 201 Physics Buildings, Hartman and Blair. Fee, \$3.

65-66. HISTORY OF PHYSICS. Lectures and recitations. Preparation of reports and discussion of assigned topics by members of the class. *Prerequisite:* Physics 1a-2a, 1b-2b, or 8-10, and 11-13. *Both semesters. One credit.* 201 Physics Building. Hartman.

68. ELECTRIC LIGHTING. The application of physical principles to the various problems of electric lighting, photometry, and miscellaneous applications of electricity. *Prerequisite:* Physics 8-10 and 11-13, and Mathematics 14, 25, and 26. *Second semester. Two credits.* 201 Physics Building. Hartman.

71-72. ELECTRICAL THEORY OF MATTER. Lectures and experimental illustrations. Discussion of important topics in the fields of radiation and the structure of atoms and molecules. *Fall semester:* Vacuum tube technique, electrons and positive rays, spectrum analysis, Zeeman effect, Doppler's principle, liberation of electrons by light, and isotopes.

Spring semester: Radioactive transformations, alphaparticle scattering, the Bohr theory of the hydrogen atom, critical potentials, spectra of molecules and compounds, and magnetic spectra. *Prerequisites:* General Physics, Integral and Differential Calculus. *Two credits each semester.* 201 Physics Building. Leifson.

73-74. ELECTROMAGNETIC THEORY. Introduction to the mathematical theory of electricity and magnetism. Solution of problems by exact reasoning from fundamental principles. *Prerequisites:* General Physics, Differential and Integral Calculus. *Either semester. Two credits.* 201 Physics Building. Leifson. Fee, \$5.

75-76. GLASSBLOWING. A laboratory course of instruction in methods of making simple glass apparatus. *Either semester. One credit.* 107 Physics Building. Leifson. Fee, \$5.

78-80. GENERAL PHYSICS FOR ARTS AND SCIENCE STUDENTS OF THE SENIOR COLLEGE:

78. Lecture and recitations in mechanics of solids, liquids and gases, properties of matter and heat, illustrated by experimental lecture room demonstrations and assigned problems. *Prerequisite:* Mathematics 7, 11, 13 and 14, high school physics or Physics 1a-2a and 1b-2b. *First semester. Four credits.* 201 Physics Building. Hartman and Leifson.

79. Lectures and recitations in electricity and magnetism and sound, illustrated by experimental lecture room demonstrations and assigned problems. *Prerequisite:* Mathematics 7, 11, 13 and 14, high school physics or Physics 1a-2a and 1b-2b, Physics 78. *Second semester. Four credits.* 201 Physics Building. Hartman and Leifson.

80. Lecture and recitation in wave motion and light, illustrated by experimental lecture room demonstrations and assigned problems. *Prerequisite:* Mathematics 7, 11, 13, and 14, high school physics or Physics 1a-2a and 1b-2b, Physics 78. *First semester. Two credits.* 201 Physics Building. Hartman and Leifson.

81-83. PHYSICAL MEASUREMENTS FOR ARTS AND SCIENCE STUDENTS OF THE SENIOR COLLEGE:

The experiments involve fundamental physical principles, and illustrate their most important applications.

81. Experimental work of distinctly quantitative character in mechanics of solids, liquids and gases, properties of matter and heat. *Prerequisite:* Mathematics 7, 11, 13, and

14, high school physics or Physics 1a-2a and 1b-2b. *First semester. Two credits.* 103 and 109 Physics Building. Blair, Hartman, and Leifson. Fee, \$3.

82. Experimental work of distinctly quantitative character in electricity and magnetism and sound. *Prerequisite:* Mathematics 7, 11, 13, and 14, high school physics or Physics 1a-2a and 1b-2b, Physics 78 and 81. *Second semester. Two credits.* 103 and 109 Physics Building. Fee, \$3.

83. Experimental work of distinctly quantitative character in wave motion and light. *Prerequisite:* Mathematics 7, 11, 13, and 14, high school physics or Physics 1a-2a and 1b-2b, Physics 78 and 81. *First semester. Two credits.* 103 and 109 Physics Building. Blair, Hartman, and Leifson. Fee, \$3.

101-102. MATHEMATICAL PHYSICS. An introduction to the more advanced mathematical analysis as applied to general physical problems. *Prerequisite:* Physics 78-80, 81-83, 57, and 59-60, and Mathematics 14, 25, 26, and 85. *Both semesters. One credit each semester.* 201 Physics Building. Hartman.

103-104. THESIS WORK, and all special laboratory work not in the courses announced above. *Both semesters. Credits to be arranged.* 201 Physics Building. Hartman.

POULTRY HUSBANDRY

College of Agriculture

PROFESSOR SCOTT, HEAD OF DEPARTMENT

2. FARM POULTRY MANAGEMENT. Raising poultry under farm conditions. This course deals with the housing, raising of poultry, handling of stock for the market, and egg production, killing, dressing, diseases, hatching, and rearing of young chicks. Trips to local poultry farms. It is taught with special reference to farm conditions. *First semester. One lecture, one laboratory period. Two credits.* 105 Agricultural Building. Scott. Fee, \$2.

4. JUDGING AND CULLING. This course deals with all the principal breeds of poultry as given in the American Standard of Perfection, which is used as a text. The laboratory work consists of judging such poultry as can be obtained in Reno and vicinity, examination of hens to estimate production, demonstrations in marketing and caponizing. *Sec-*

ond semester. One lecture, one laboratory. Two credits. 105 Agricultural Building. Scott. Fee, \$2.

6. INCUBATION AND BROODING. Practical work with incubators and brooders. *Laboratory, one period. One credit. Second semester.* Scott. Fee, \$2.

PSYCHOLOGY

PROFESSOR YOUNG, HEAD OF DEPARTMENT

MRS. CHAPPELLE

Requirements for a major: Philosophy 1 or 2, Zoology 8, Sociology 71, Psychology 5, 51, 60, 62, 63, and six additional hours in the department.

Requirements for a minor: Psychology 5, 8 or 10, 62, and ten additional hours in the department.

2. HUMAN NATURE. A birdseye view of man's instincts, capacities and mental traits. The laws of learning and habit-formation are emphasized. The principal aims of the course are: (1) To furnish a basis for the development of an effective method of study; (2) to present the principles that should be recognized in the conscious building of character; and (3) to develop greater social sympathy and understanding. This course is open to Freshmen. *Second semester. Two credits.* Education Building.

5. GENERAL PSYCHOLOGY. An introductory course dealing with forms and laws of consciousness. Lectures, prescribed readings, term paper. Not open to Freshmen. Required for two-year Normal and high-school teacher's diplomas. *Either semester. Three credits.* Education Building.

8. PSYCHOLOGY OF CHILDHOOD. The development of consciousness through infancy and childhood, with special reference to the application of the principles of development to the training of children. Required for two-year Normal students. *Second semester. Two credits.* Education Building.

10. PSYCHOLOGY OF ADOLESCENCE. An intensive study of the characteristics dominant in the adolescent, with special emphasis upon applications to the work of the high-school teacher. Required for high-school teacher's diploma. *Second semester. Two credits.* Education Building.

12. PSYCHOLOGY OF OCCUPATIONS. A brief review of the fundamental principles of psychology, and a study of their applications in the chief industries and occupations of mankind. *Second semester. Two credits.* Education Building.

51. SOCIAL PSYCHOLOGY. A study of the applications of psychology to the group-life of society: Communities, parties, nations, mobs, amusements, etc. *Prerequisite:* Psychology 5, or its equivalent. *First semester. Two credits.* Education Building.

55. ABNORMAL PSYCHOLOGY. A study of the abnormal mind in its relation to behavior. The theory of the unconscious mind, sleep, dreams, hypnotism, and obsessions are major topics in the course. *Prerequisite:* Psychology 5, or its equivalent. *First semester. Three credits.* Education Building.

59. MENTAL MEASUREMENTS. Lectures, practice, readings. Description of the more important tests of general intelligence and special ability, with some practice in testing, grading and interpreting results. Special attention will be given to the testing of school children, tests as a means of classifying employees, army personnel, etc. *First semester. Two credits.* Education Building.

60. COMPARATIVE PSYCHOLOGY. The genetic history of consciousness in animals, savages and civilized human beings. *Second semester. Two credits.* Education Building.

61. BUSINESS PSYCHOLOGY. A discussion and illustration of the mental laws upon which efficient buying, selling, advertising and management of men are based. *First semester. Two credits.* Education Building.

62. EXPERIMENTAL PSYCHOLOGY. A laboratory course in the application of scientific methods to the study of mental processes. Lectures, assigned readings, and laboratory. *Second semester. Three credits.* Education Building.

63. ADVANCED PSYCHOLOGY. An intensive study of selected problems. Lectures, readings and a term paper. *Prerequisite:* Psychology 5. *First semester. Two credits.* Education Building.

102. RESEARCH IN PSYCHOLOGY. The thesis subject may be chosen from the field of child study, social or experimental psychology. For graduate students and Seniors. *Prerequisite:* Psychology 5, and at least one course in the field in which the work is to be done. *Either semester. Two credits.* Education Building.

AFFILIATED ORGANIZATIONS

1. AGRICULTURAL EXPERIMENT STATION
2. AGRICULTURAL EXTENSION DIVISION
3. THE STATE ANALYTICAL LABORATORY
4. THE STATE HYGIENIC LABORATORY
5. LABORATORY FOR PURE FOOD AND DRUGS AND WEIGHTS AND MEASURES
6. THE STATE VETERINARY CONTROL SERVICE
7. UNITED STATES BUREAU OF MINES EXPERIMENT STATION

AFFILIATED ORGANIZATIONS

THE NEVADA AGRICULTURAL EXPERIMENT STATION

Staff

WALTER E. CLARK, Ph.D., LL.D., President of the University.
 SAMUEL B. DOTEN, M.A., Director and Entomologist.
 F. L. BIXBY, C.E., Bureau of Public Roads, Irrigation Div., U.S.D.A.
 GEORGE HARDMAN, M.S., Assistant Agronomist.
 ROBERT STEWART, Ph.D., Collaborator in Soil Fertility.
 CHARLES E. FLEMING, B.S.A., Range Management.
 ANDREW YOUNG, Assistant in Range Management.
 EDWARD RECORDS, V.M.D., Veterinarian.
 LYMAN R. VAWTER, D.V.M., Pathologist.
 F. B. HEADLEY, Farm Development.
 J. J. McELROY, B.S., Assistant in Farm Development.
 ROBERT MARION CLAWSON, B.S., Assistant in Farm Development.
 M. R. MILLER, B.S., Chemist.
 MATILDA MARSHALL, Statistician in Farm Development.
 MARY McGEE, Secretary to Veterinary Department.
 MRS. MARTHA BRUCE, Librarian and Secretary to Director.
 GRACE COSTELLO, Secretary Range Management.

Under provisions of the Hatch Act, approved March 2, 1887, the Agricultural Experiment Station was organized in December of that year. From the Hatch Fund the Experiment Station receives \$15,000 annually, from the Adams Fund, created by the Adams Act of 1906, it receives a like amount and from the Purnell Fund, created by the Purnell Act, approved February 25, 1925, it received \$20,000 during the fiscal year 1925-1926, and will receive \$10,000 additional for each fiscal year thereafter until the total reaches \$60,000 annually. None of these funds can be applied to teaching or to the work of Agricultural Extension, because the object of all three funds is the investigation by scientific methods of problems in the agricultural industry.

The Nevada Experiment Station has chosen problems for study in four fields:

I. The problems of the most effective use of a limited water supply in crop production.

II. The problems of animal disease in the livestock industry of the State.

III. The problems arising from the depleted condition of Nevada ranges for sheep and cattle.

¹U. S. Department of Agriculture cooperating.

IV. The problems of small farm development in Nevada. For 1926-1927 the active project list of the Station is as follows:

HATCH FUND

Entomology—

5. Insects Injurious to Alfalfa. 1916-Continuous. Project Leader, S. B. Doten.

Farm Development—

30. Land Utilization and Farm Development Studies. 1925-Continuous. Project Leader, F. B. Headley.

Range Management—

24. Methods of Increasing the Percentage of Lambs in Nevada Range Flocks, 1919-Continuous. Project Leader, C. E. Fleming.
 26. Feeding and Finishing Range Ewes and Lambs. 1920-Continuous. Project Leader, C. E. Fleming.
 27. Pasturage and Silage Production for Sheep. 1920-Continuous. Project Leader, C. E. Fleming.

ADAMS FUND

Veterinary Science—

16. Hemorrhagic Disease in Cattle. 1914-Continuous. Project Leader, Dr. Edward Records.

Range Management—

22. Poisonous Range Plants. 1916 (Hatch). 1918-Continuous. Project Leader, C. E. Fleming. Assisted by M. R. Miller and Dr. L. R. Vawter.

PURNELL FUND

Irrigation and Soils—

28. Studies of Reclamation and Irrigation in the Las Vegas Valley. 1922 (Hatch). 1925-Continuous. Project Leader, F. L. Bixby, assisted by George Hardman.

AGRICULTURAL EXTENSION DIVISION

Cooperating Parties

THE PRESIDENT AND THE BOARD OF REGENTS OF THE UNIVERSITY OF NEVADA.

THE EXTENSION SERVICE OF THE UNITED STATES DEPARTMENT OF AGRICULTURE.

THE STATE AND COUNTY FARM BUREAUS.

Staff

WALTER E. CLARK, Ph.D., LL.D., President of the University of Nevada.

CECIL W. CREEL, B.S., Director.

THOMAS E. BUCKMAN, B.S., Assistant Director.

MARY STILWELL BUOL, B.S., Assistant Director.

VERNER E. SCOTT, B.S., Dairy and Poultry Specialist.

- JOSEPH W. WILSON, B.S., Extension Agent, Elko County.
 ALBERT J. REED, B.S., Extension Agent, Pershing County.
 JOHN H. WITTEW, B.S., Extension Agent, Clark and Lincoln Counties.
 EDWARD C. REED, B.S., Extension Agent, Lyon County.
 CLAUDE R. TOWNSEND, Extension Agent, Eureka and White Pine Counties.
 PAUL L. MALONEY, B.S., Extension Agent, Humboldt and Lander Counties.
 CLARENCE J. THORNTON, B.S., Extension Agent, Washoe County.
 L. E. CLINE, B.S., Extension Agent, Churchill County.
 HAZEL ZIMMERMAN, B.S., Extension Agent, Washoe County.
 JESSIE DEWAR, B.S., Extension Agent, Elko County.
 LASSIE LANE, Extension Agent, Eureka, Lander, Lyon and Pershing Counties.
 ELLEN LENOIR, B.S., Extension Agent, Clark, Lincoln, and White Pine Counties.

Cooperative Extension Work in Agriculture and Home Economics is organized and conducted in Nevada under the provisions of the Smith-Lever Act of Congress, approved March 8, 1914. The Agricultural Extension Division as established under the Memorandum of Understanding, dated September 8, 1914, is a "definite and distinct administrative division" of the University of Nevada, coordinate in rank and affiliating with the College of Agriculture and the Agricultural Experiment Station. All the extension activities of the College of Agriculture and the United States Department of Agriculture in Nevada are conducted through this department.

The nature of the work is defined in general terms by law as "the giving of instruction and practical demonstrations in agriculture and home economics to persons not attending or resident in said colleges in the several communities, and imparting to such persons information on said subjects through field demonstrations, publications, and otherwise."

The work is annually outlined in written projects and budgets entered into by the cooperating parties. The major projects are Range Livestock, Dairying, Poultry, Crops, Home Improvement, Human Nutrition and Clothing. The organization for Extension Work in Nevada comprises an administrative and specialist staff resident at the University, and twelve County and District Extension Agents. Eleven Nevada counties have organized Farm Bureaus pursuant to Acts of the Legislature, approved April 1, 1919, and March 4, 1921. Extension Work in these counties is conducted in cooperation with the Farm Bureaus.

¹Detailed by the U. S. Department of Agriculture.

THE STATE ANALYTICAL LABORATORY

Staff

- WALTER E. CLARK, Ph.D., LL.D., President of the University
 WALTER S. PALMER, E.M., Director.
 J. CLAUDE JONES, Ph.D., Geologist.
 WILLIAM I. SMYTH, B.S., Chemist.
 O. R. GRAWE, M.S., Mineralogist.

The State Analytical Laboratory was organized at the University of Nevada in 1895 under the provisions of an Act approved on March 16 of that year. Its object is to assist the mining industry of Nevada by making free analyses of minerals and ores taken from within the boundaries of Nevada by its citizens, and by reporting to the senders the results of such analyses, together with the uses and market values of the substances submitted.

The routine assays and analyses are made by the chemist. The routine rock and mineral determinations are made by the mineralogist, with the geologist assisting with the unusual rocks and minerals. The director exercises general supervision over the work of the laboratory.

Samples and specimens are listed and distributed in the order in which they are received at the laboratory, and are analyzed essentially in this order, but reports do not go out in the same order since some assays take much longer than others. The results obtained by analysis are given upon the reports for all substances except gold and silver. All that the law permits is a statement that gold or silver is present in value above or below \$5 per ton.

The records of the laboratory are open to inspection, but visitors will not be permitted to see copies of reports until sufficient time has elapsed for the original reports to reach the hands of the senders.

THE STATE HYGIENIC LABORATORY
(Sierra and Fifth Streets)

Staff

WALTER E. CLARK, Ph.D., LL.D., President of the University.
HENRY ALBERT,¹ M.D., Director.
VERA LAUTENSCHLAGER, M.A., Acting Director.
EDNA BROWN, Stenographer.

The State Hygienic Laboratory was organized in 1909, under the provisions of an Act of the Legislature approved March 25 of that year. The object of the laboratory is to provide facilities for the laboratory diagnosis of infectious diseases and for research into the nature, cause, diagnosis, and methods for the control of such diseases. The services of the laboratory staff are rendered chiefly through the physicians, health officers, and health boards of the State.

The routine work of the laboratory consists chiefly of the examination of specimens for the diagnosis of tuberculosis, typhoid fever, diphtheria, malaria, gonorrhoea, and syphilis. Outfits for the collection of specimens for the diagnosis of these diseases may be obtained by any physician without charge.

Examinations are also made for meningitis, sore throat, and other infectious diseases.

Bacteriological examinations of water are made for cities, schools, mining camps, railway companies, and other organizations. The laboratory has available a small number of containers for sending water samples. Officials desiring water examinations to determine whether or not the water is polluted with sewage material or is the source of disease should write to the Director of the laboratory for instructions. Samples of water to be examined for industrial purposes should be sent to the Laboratory for Pure Food and Drugs.

Advice and assistance will, on request, be rendered health officials in the control of outbreaks of infectious diseases and in securing a sanitary water supply.

¹On leave.

LABORATORY FOR PURE FOOD AND DRUGS AND WEIGHTS
AND MEASURES
(Sierra and Fifth Streets)

Staff

WALTER E. CLARK, Ph.D., LL.D., President of the University.
SANFORD C. DINSMORE, B.S., Commissioner.
WAYNE B. ADAMS, B.S., Chemist.
VICTOR COKEFAIR, Inspector.
MRS. PEARL TURNER, Clerk.

An Act providing for the inspection and analysis of foods, drugs, and liquors, manufactured or offered for sale within the State, was passed by the 1909 session of the Legislature, and became effective on January 1, 1910. The state law is modeled after the National Food and Drugs Act of June 30, 1906, and provides that all rules, regulations, definitions, and decisions proclaimed by the Secretary of Agriculture for the enforcement of the national law shall be adopted by this department in the enforcement of the state law.

With such provisions Nevada receives valuable aid through the federal regulations, and avoids conflict with neighboring States having laws also modeled closely after the national Act. Uniformity in state and national laws, and cooperation among officials is much to be desired, and more can be accomplished under such conditions than by working under laws that are dissimilar or antagonistic to established regulations that have been in vogue in States maintaining food laws for a number of years.

The laws of this State, being similar to the national law, obviate the necessity of manufacturers providing special labels to meet any special requirements that otherwise might exist in this State. Often labels are submitted to this department for approval or correction so that they will comply with the Nevada food law.

An Act concerning and fixing standard weights and measures, and to regulate the sale of commodities or articles of merchandise according to such standards, was passed by the 1911 session of the Nevada Legislature and became effective January 1, 1912.

The standard weights and measures adopted by the Government of the United States have been adopted as the legal standard of weights and measures throughout the State of Nevada. With this adoption Nevada receives aid through the federal regulations and promotes uniformity in state and national standards.

The 1923 session of the State Legislature passed what is known as the Fruit and Vegetable Standardization Act. The enforcement of the provisions of this Act was entrusted to the Department of Weights and Measures.

The measure was promulgated to promote, protect, further, and develop the agricultural interests of the State. It provides for the grading and standardization of all farm products and the issuing of federal-state certificates to any shipper desiring the service. A nominal fee is charged to cover actual expenses incident to shipping-point inspection and issuing certificates. The certificates issued, covering shipments of agricultural products, are absolute guarantees against loss by unscrupulous manipulation of the market, or damage caused by neglect of carrying companies. Complete information regarding this particular work may be obtained by addressing the Department.

THE STATE VETERINARY CONTROL SERVICE

Staff

WALTER E. CLARK, Ph.D., LL.D., President of the University.
 EDWARD RECORDS, V.M.D., Director.
 LYMAN R. VAWTER, D.V.M., Pathologist.
 GEORGE G. SCHWEIS, Field Entomologist.
 MARY MCGEE, Stenographer.

Employees of State Board of Stock Commissioners Cooperating with State Veterinary Control Service

WARREN B. EARL, D.V.M., Veterinary Inspector.
 W. H. HILTS, D.V.M., Veterinary Inspector.
 LOUISE LEWERS, Stenographer.

The State Veterinary Control Service was organized during 1915, under the provisions of an Act of the Legislature approved March 11, 1915. The object of this Department is to provide facilities for the routine diagnosis of communicable diseases of domesticated animals in the laboratory and the field, and to conduct research into the nature, cause, and means of control of such diseases, including the manufacture and distribution of special sera and vaccines for their control when these cannot be procured in the open market. This is intended to supplement the more elaborate research projects of the Department of Veterinary Science of the Agricultural Experiment Station and aid in the field work carried on by the State Board of Stock Commissioners. From time to time bulletins and circulars dealing with the communicable diseases of domesticated animals, plant diseases and insect pests, and the most modern means of controlling the same are prepared and distributed.

The Director is ex officio State Quarantine Officer and has general charge of the administration of all interstate and intrastate quarantines designed for the control of infectious diseases of live stock, plant diseases and insect pests. Certain work in the field on the control of the alfalfa weevil and other insect pests is also being carried on by this department. The services of the staff are available to the veterinarians, livestock owners and ranchers of the State in connection with any problem coming within the scope of the work of this department.

DEPARTMENT OF COMMERCE

UNITED STATES BUREAU OF MINES RARE AND PRECIOUS
METALS EXPERIMENT STATION*Staff*

EDMUND S. LEAVER, Met.E., Superintendent and Metallurgist.
H. A. DOERNER, B.S., Associate Chemist.
CHARLES W. DAVIS, B.S., Associate Chemist.
J. A. WOOLF, B.S., Junior Metallurgist.
C. TRAVIS ANDERSON, B.S., Analyst.
H. F. McCRAY, Chief Clerk.

The Legislature of Nevada passed an Act in March, 1919, providing funds to house an experiment station of the United States Bureau of Mines at the University of Nevada. In June, 1920, the Bureau of Mines accepted the offer and agreed to establish one of its twelve field stations in the quarters provided by a building adjoining the Mackay School of Mines. This building provides office and laboratory facilities for the present staff of the Station, and allows for some future expansion of the work. The building was ready for occupancy in July, 1921, and was equipped during the succeeding three months.

The Nevada Station is known as the Rare and Precious Metals Experiment Station. The scope of the work embraces investigations on gold, silver, platinum, and the rare metals for the entire United States, and of other problems having especial importance for the mining and metallurgical industries of Nevada.

The laboratories and library of the Station will be found described elsewhere in this catalogue.

THE SUMMER SESSION

THE SUMMER SESSION, 1927

JUNE 13 TO JULY 22

The fifteenth annual Summer Session of the University of Nevada will begin Monday, June 13, 1927, and will continue through Friday, July 22, the session covering six weeks.

As heretofore the University of Nevada proposes to do all in its power to make the Summer Session one of inspiration, information, and recreation for all the teachers of this great State who are seeking a vacation which is both profitable and pleasurable.

THE DORMITORY

Manzanita Hall (for young women) is a building of modern construction, of the very best equipment in ventilation, heating and lighting, and the rooms are comfortably furnished. The hall has accommodations for about seventy-five women. Children not admitted.

For the Summer Session the dormitory will open Saturday, June 11, 1927.

All women planning to live in the dormitory should bring with them towels, bed linen, and bedding. Only mattresses and pillows are furnished.

All residents of the dormitory must board at the dining hall.

Men students will have no difficulty in securing accommodations in private homes or in apartments.

THE UNIVERSITY DINING HALL

For the students of the Summer Session the University will open the University dining hall for breakfast Sunday morning June 12. Children will be admitted to the dining hall at the same rate as adults. The equipment and service are organized with a view of securing board and table service of the most acceptable character, and, unless students have relatives or friends in Reno with whom they want to make arrangements, they will find it very advantageous to share the community life of the dormitory and dining hall.

ADMISSION

No entrance examinations will be required. Instruction is open to any one of sufficient academic preparation to profit by it.

The Summer Session is not intended for high-school students. However, the policy will be continued of admitting high-school Juniors and Seniors to any courses for which they seem to the Director and instructors qualified.

CREDITS AND CERTIFICATION

No University credit is allowed for the various courses except for students who are duly qualified through graduation from an accredited high school or who meet the matriculation requirements in some other way. No one may register for more than six credits without special approval by the Director. It is assumed that six credits of work will occupy the full time of the student, and, therefore, the custom of allowing auditors has been discontinued.

A student wishing to secure an elementary or high-school teacher's certificate may find it advantageous to meet a few of the requirements by summer school study. *Second grade* elementary certificates, good for three years, are granted to those who satisfy the entrance requirements of the University and complete one year of the normal course.

The courses in penmanship and bookkeeping will receive certificate credit but no college credit.

The course in stenography and typewriting is offered especially for prospective teachers of commercial subjects, and for others who have the approval of the instructor.

The following courses receive normal-school credit: Art Sm. 1; Education Sm. 23, Sm. 26, Sm. 41, Sm. 48; English Sm. 1; Hygiene Sm. 4; Music Sm. 1 and Sm. 5; Nature Study Sm. 1; Physical Education Sm. 10; and Psychology Sm. 5 and Sm. 8.

The following courses receive normal-school credit and certificate credit if Education Sm. 26 is taken and carried at the same time: Education Sm. 20, Sm. 31, Sm. 34, Sm. 37, and Sm. 42.

Courses carrying college credit in addition to those listed above are as follows: History Sm. 5; English Sm. 42; Spanish Sm. 1-2, and Political Science Sm. 79-80.

THE DEMONSTRATION SCHOOL

HOURS—8:40-11:15

Great care has been given to the selection of teachers for the Demonstration School. This school is the center for all the method courses. Especial care will be given to make the Observation Course valuable. The sessions last from 8:40 to 11:15, and every teacher should keep an hour free

In Reno there is a Y. M. C. A. with many recreational advantages which are open to the men for a nominal fee, and a Y. W. C. A. where all women are given a hearty welcome. The churches of Reno will afford the summer student an opportunity to hear stimulating sermons and good music.

THE TRANSCONTINENTAL HIGHWAYS EXPOSITION

The Transcontinental Highways Exposition will be open from June 25 to August 1. The Exposition will offer unprecedented opportunities for the education and recreation of the Summer Session student. All the western States are vying with each other in the extent, variety, and value of their exhibits.

ANNUAL MEETING OF THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

The annual summer meeting of the Pacific Coast Division of the American Association for the Advancement of Science will be held at the University of Nevada June 22 to 24, 1927. The meetings of this Association will be of great value and will afford interested students an excellent opportunity to hear many eminent men of science on significant scientific investigations and developments. The meetings will be open to the public.

THE SUMMER SESSION

FACULTY

Regular University of Nevada Staff

- WALTER E. CLARK, Ph.D., President of the University of Nevada.
 JOHN W. HALL, M.A., Dean of the School of Education.
 FRED W. TRAINER, M.A. Director of the Summer Session.
 PETER FRANDSEN, A.M., LL.D., Professor of Biology.
 REUBEN C. THOMPSON, M.A., Professor of Philosophy.
 ALBERT E. HILL, B.A., Professor of English.
 BENJAMIN F. CHAPPELLE, Ph.D., Professor of Modern Languages.
 ELSIE SAMETH, M.S., Associate Professor of Physical Education for Women.
 EDITH M. RUEBSAM, B.A., Assistant Professor of Education.
 DOROTHY CRANDALL, B.A., Instructor in Music.
 MRS. LUCIE MAYER, Matron of Manzanita Hall.

Special Summer Session Staff

- W. J. HUNTING, Former State Superintendent of Public Instruction in Nevada.
 E. OTIS VAUGHN, Principal Reno High School.
 MERRILL J. BURR, Deputy Superintendent of Public Instruction in Nevada.
 LULU HAWKINS, Teacher of Art, Reno Junior High School.
 M. P. SHERMAN, Teacher of Commercial Subjects, Armijo Union High School, Fairfield, California.
 OLIVE FERGUSON, Primary Teacher, University Elementary School, Berkeley, California.
 ELIZABETH M. RICHARDS, Former Rural School Supervisor, Sonoma County, California.

COURSES OFFERED

Art

Sm. 1. PRIMARY AND ELEMENTARY ART. A general course designed to meet the needs of the rural and unsupervised grade teacher. Projects in color, design, and representation through the mediums of pencil, charcoal, tempera and oils. *Required for two-year Normal diploma. One hour daily. One credit.* Materials for this course will cost \$2.50. 203 Education Building. Hawkins.

Biology

Sm. 4. HYGIENE. The object of this course is to enable the teachers to interest the children in good health, in the

knowledge underlying it, and the practice and habits that will secure it. Discussions, assigned readings, and demonstrations. *Two credits. Required for two-year Normal diploma.* 210 Agriculture Building. Frandsen.

Sm. 1. NATURE STUDY. This course deals with the plant and animal life of Nevada in its relation to agriculture. The laboratory work consists of simple projects such as may be carried out by pupils in the rural schools. The discussions deal with the fundamental principles growing out of these projects. It is hoped that the members of this class may develop interest in, and ability to cooperate in, the club-work of the Farm Bureau. *Two credits. Required for two-year Normal diploma.* 210 Agriculture Building. Frandsen.

Commercial Courses

The following courses are offered as particularly helpful to rural teachers and to students looking forward to teaching them in high schools. They should appeal to juniors and seniors in the University. The work will be adjusted to students of varying ability and experience. Students admitted only upon approval of the instructor.

Sm. BB. BOOKKEEPING. Study and practice in the elementary principles of bookkeeping intended for teachers in the rural schools and for prospective commercial teachers wishing an introduction to bookkeeping. *Certificate credit but no college credit.* Room 202 Education Building. Sherman.

Sm. CC. PENMANSHIP. Text: The Palmer Method of Business Writing. This course will cover the principles of the Palmer Method and practice. *No college credit. Certificate credit.* 202 Education Building. Sherman.

Sm. DD. STENOGRAPHY AND TYPEWRITING. Principles and practice of stenography. Instruction on the typewriter. One hour for instruction and one other hour should be reserved for typing. The work will be adapted to beginners and those wishing to review. *No credit.* Rooms 200 and 202 Education Building. Sherman.

Education

Sm. 20. PRINCIPLES OF TEACHING. A study of the various types of classroom teaching to discover principles of selection, organizations, and presentation of subject matter to

children of the first six grades. *Two credits.* 103 Education Building. Traner.

Sm. 23. PROBLEMS IN RURAL EDUCATION AND SCHOOL LAW. A survey of Nevada school conditions, the need of Nevada rural communities, and the opportunity and responsibility of the rural school-teacher for leadership among both children and adults are among the more important topics studied. A study of Nevada state school law will be included. This course may be substituted for Education 23 provided that Sm. 26 is carried at the same time. *Two credits* 207 Education Building. Hunting.

Sm. 26. OBSERVATION OF PRACTICE TEACHING. This course will be required for students who register for method courses and who wish credit on certificates for such courses, or who wish to substitute the credit for the course in the regular semester. Students may register for this course in addition to six other units of work and without special permission. Students having credit in Education Sm. 26 may take Sm. 26 for an additional credit. *One credit.* 209 Education Building. Ruebsam, 8:40; 103 Education Building. Traner, 9:35.

NOTE—Students should bring all the books on method they possess. They should have special method books in the subjects they wish especially to observe.

Sm. 31. THE TEACHING OF ARITHMETIC. A study of the modern aims in teaching arithmetic, the effect of these aims on the selection and organization of arithmetic material for the different grades, and the methods of teaching. May be substituted for Education 31 provided Sm. 26 is carried at the same time. *Required for two-year Normal diploma.* *Two credits.* 211 Education Building. Vaughn.

Sm. 34. THE TEACHING OF ENGLISH. Principles underlying the selection, organization, and presentation of subject matter for the first four grades, and the study of children's literature for these grades. May be substituted for Education 34 provided Sm. 26 is carried at the same time. *Required for two-year Normal diploma.* *Two credits.* 103 Education Building. Ruebsam.

Sm. 37. THE TEACHING OF GEOGRAPHY. A study of the modern aims in teaching geography, with discussion of the

selection, organization and presentation of suitable geographical material for the different grades. May be substituted for Education 37 provided Sm. 26 is carried at the same time. *Required for two-year Normal diploma. Two credits.* 211 Education Building. Vaughn.

Sm. 41. KINDERGARTEN METHODS FOR PRIMARY TEACHERS. *Required for the two-year Normal diploma. One credit.* Fee \$1. 209 Education Building. Ruebsam.

Sm. 42. THE TEACHING OF HISTORY AND CIVICS. A consideration of the aims of teaching history and civics and the effect of these aims on the selection, organization, and presentation of subject matter. May be substituted for Education 42 provided Sm. 26 is carried at the same time. *Required for two-year Normal diploma. Two credits.* 204 Education Building. Burr.

Sm. 48. EDUCATIONAL TESTS AND MEASUREMENTS. This course will consider the most serviceable tests and scales for measuring the elementary-school subjects. It is designed to assist teachers in judging and improving their instruction. The course will involve giving and scoring the tests, with special emphasis upon the interpretation of results. *Required for two-year Normal diploma. Two credits.* 204 Education Building. Burr.

English

Sm. 1. COMPOSITION AND RHETORIC. The study of English as a means of self-expression and self-development. There will be written work in description and narration, analysis of examples of good writing, and discussion of grammatical questions. *Required for two-year Normal diploma. Two credits.* 200 Education Building. Hill.

Sm. 42. LITERATURE. Good reading in prose and poetry. A course in Appreciation. *Two credits.* 200 Education Building. Hill.

HISTORY AND POLITICAL SCIENCE

History Sm. 5. EUROPEAN BACKGROUND OF AMERICAN HISTORY. European life and institutions and their effect upon the discovery and development of the Americas. Those intending to enroll are urged to bring sixth-grade history books. *Two credits.* 207 Education Building. Hunting.

Political Science Sm. 79-80. UNITED STATES CONSTITUTIONAL HISTORY. This course is arranged to meet the legislative requirement for the study of the Constitutions of the United States and Nevada. *Two credits.* 207 Education Building. Hunting.

Modern Languages

Sm. 1-2. FIRST-YEAR SPANISH. Drill in the essentials of grammar. Reading of simple texts. Elementary conversation and composition. *Four credits.* 207 Education Building. Chappelle.

Sm. 1-2. FIRST-YEAR FRENCH. Drill in the essentials of grammar. Translations. Elementary conversation and composition. *Four credits.* (Given in 1928.)

Music

Sm. 1. ELEMENTS OF MUSIC. Learning to read and to sing the simple music appropriate for children of rural schools. Notation and terminology, intervals, and other technique growing out of the above work, as far as may be necessary and possible to equip teachers to handle the music in the rural schools. *One credit. Required for two-year Normal diploma.* 204 Education Building. Crandall.

Sm. 5. METHODS. The presentation through class work of elementary problems: Care of child voice; principles of conducting; lesson plans; ear and eye training; and less musical children. *Prerequisites:* Music 1-2. *Required for two-year Normal diploma. Two credits.* 204 Education Building. Crandall.

PHYSICAL EDUCATION

Sm. 10. LEADERSHIP IN GAMES. A course in games that may be effectively played in rural schools of almost any size. Members of this class will have experience in conducting such games two or more times a week in addition to daily class work. One class period daily and two periods weekly for directing games. *One credit.* Gymnasium. Sameth.

NOTE—Students of the Summer Session who wish will have opportunities to play games four days a week. Students may play tennis, indoor baseball, volley-ball, soccer, hockey, etc., under the guidance of members of P. E. Sm. 10, Miss Sameth supervising. It is hoped that every Summer Session student will take some part in this recreation.

Psychology

Sm. 5. ELEMENTARY PSYCHOLOGY. A course in general psychology dealing with the forms and laws of consciousness. Lectures and prescribed readings. *Required for two-year Normal and high-school teacher's diploma. Two credits.* 211 Education Building. Thompson.

Sm. 8. PSYCHOLOGY OF CHILDHOOD. The development of consciousness through infancy and childhood, with special reference to the application of the principles of development to the training of children. *Required for two-year Normal students. Two credits.* 211 Education Building. Thompson.

SCHEDULE OF CLASSES

SUMMER SESSION, 1927

The Demonstration School will be in continuous session from 8:40 to 11:15. Lower grades, Room 105, Ferguson. Upper grades, Room 104, Richards.

7:45—

Education Sm. 31.....	Room 211, Vaughn
English Sm. 2.....	Room 200, Hill
Nature Study Sm. 2.....	Room 210, Agriculture Building, Frandsen
Physical Education Sm. 10.....	Gymnasium, Sameth
Spanish Sm. 1-2.....	Room 207, Chappelle

8:40—

Education Sm. 26.....	Room 209, Ruebsam
Education Sm. 37.....	Room 211, Vaughn
English Sm. 42.....	Room 200, Hill
Hygiene Sm. 4.....	Room 210, Agriculture Building, Frandsen
Spanish Sm. 1-2.....	Room 207, Chappelle

9:35—

Education Sm. 26.....	Room 103, Traner
Education Sm. 41.....	Room 209, Ruebsam
Education Sm. 42.....	Room 204, Burr
History Sm. 5.....	Room 207, Hunting
Stenography and Typing.....	Room 202, Sherman

10:30—

Education Sm. 20.....	Room 103, Traner
Education Sm. 23.....	Room 207, Hunting
Education Sm. 48.....	Room 204, Burr
Penmanship.....	Room 202, Sherman
Psychology Sm. 8.....	Room 211, Thompson

11:25—

Bookkeeping.....	Room 202, Sherman
Education Sm. 34.....	Room 103, Ruebsam
Music Sm. 5.....	Room 204, Crandall
Political Science Sm. 79-80.....	Room 207, Hunting
Psychology Sm. 5.....	Room 211, Thompson

1:30—

Music Sm. 1.....	Room 204, Crandall
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2:25—

Art Sm. 1.....	Room 203, Hawkins
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Games will be played in the Gymnasium at 6:30, M. T. W. Th., under Miss Sameth's supervision.

WINNERS OF SCHOLARSHIPS AND HONORS, 1926
ROLL OF DEGREES GRANTED, 1926
ENROLLMENT SUMMARY FOR 1926-1927
ROSTER OF STUDENTS—August, 1926—May, 1927

RECIPIENTS OF SCHOLARSHIPS AND HONORS

1926

The five REGENTS' SCHOLARSHIPS of \$50 each for excellence in scholarship, awarded to

Florence Billinghamurst

David Finch

Ada Moore

Fred Anderson

Eillen Baldwin

The ELLA SPRENGLE STUBBS SCHOLARSHIP of \$100, awarded to

Cecil Gay

The ALICE G. CLARK SCHOLARSHIP of \$250, given by W. A. Clark, Jr., of Los Angeles, awarded to

Eleanor Curieux

The UNIVERSITY ASSOCIATED WOMEN STUDENTS' SCHOLARSHIP of \$25, awarded to

Margaret Hill

The J. H. CLEMONS SCHOLARSHIP of \$50, awarded to

Oltman Reil

The LEWIS D. FOLSOM SCHOLARSHIP of \$100, awarded to

John Agrusa

The ROSE SIGLER MATHEWS SCHOLARSHIPS of \$100 each, awarded to

Lucille Butler

Marvin Robinson

Margaret Ernst

The THEODORA STUBBS FULTON MEMORIAL SCHOLARSHIP of \$200, awarded to

Thelma Pray

The ADOLPHUS LEIGH FITZGERALD SCHOLARSHIPS of \$150 each, awarded to

George Pettycrew

Evelyn Anderson

The MARYE WILLIAMS BUTLER SCHOLARSHIP of \$50, awarded to

Raymond Ede

The WOMEN'S ATHLETIC SCHOLARSHIP of \$100, awarded to

Naomi Ayres

The AZRO E. CHENEY SCHOLARSHIP of \$300, awarded to

Altha Pierson

The GENERAL O. M. MITCHELL WOMAN'S RELIEF CORPS MILITARY SCHOLARSHIP of \$50, awarded to

Kenneth K. Knopf

The ROBERT LEWERS SCHOLARSHIPS of \$150 each, awarded to

Mark Menke

Loretta Miller

The NEVADA BAR ASSOCIATION SCHOLARSHIP of \$100, awarded to

Mark Menke

The SARAH L. LEWIS HOME ECONOMICS SCHOLARSHIP of \$100, awarded to

Barbara Bulmer

The MRS. CARL OTTO HERZ ELECTRICAL ENGINEERING SCHOLARSHIP of \$50, awarded to

Frank Burkham

The CHARLES H. MOORE DEBATING SCHOLARSHIP of \$50, awarded to
Carl B. Shelley

The HENRY ALBERT SENIOR PUBLIC SERVICE PRIZE of \$25, awarded to

Harold P. Coffin

GOLD MEDAL

Awarded annually to that member of the graduating class who has maintained the highest average grade in scholarship throughout his or her college course, awarded to

Sarah Gilberta Turner

Seniors elected to the National Honor Fraternity of the Phi KAPPA PHI, election being based upon scholarship:

Elisabeth M. Barndt	Mildred Klaus
Donald Eisenbrey Church	Lawton B. Kline
Robert Marion Clawson	Ruth Olmsted
Helen Dorothy Crandall	Raemon Charles Sannels
Silvia Frances Genasci	Rena Semenza
Fred Humphrey	Sarah Gilberta Turner
	Helen Wells

HONOR ROLL of those students whose names appeared on this roll both semesters of the year 1925-1926:

SENIORS

Elisabeth M. Barndt	Mildred Klaus
Robert Marion Clawson	Ruth Olmsted
Helen Dorothy Crandall	Sarah Gilberta Turner

JUNIORS

Norman Bell	Joseph Min
Florence Billinghamurst	Ada C. Moore
Raymond Ede	Grace Muran
Margaret Hill	Cruz Venstrom

SOPHOMORES

Fred Anderson	Louis Genasci
Margaret Ernst	Altha Pierson
David Finch	Carl B. Shelley

FRESHMEN

May Abbott	Flora Jones
Evelyn Anderson	Rudolph Kruger
Ellen Baldwin	Mark Menke

GRADUATES

Diplomas and Degrees were awarded on Commencement Day, May 10, 1926, as follows:

ENGINEER OF MINES

Harper C. Neeld

MASTER OF SCIENCE IN METALLURGY

Herbert Carroll Vacher

MASTER OF ARTS IN ECONOMICS

Loren E. McFadden

MASTER OF ARTS IN MODERN LANGUAGES

John R. Gottardi

MASTER OF ARTS IN ENGLISH

Natalie J. Holly

BACHELOR OF ARTS

Bernard Dorothy Aikin (Dec. 23, 1925)	Mildred Klaus
William Harper Anderson	Lawton B. Kline
John J. Baker	William Andrew Krauss
Lawrence C. Baker	Olga Laiolo (Dec. 23, 1925)
Elisabeth M. Barndt	Philip L. Lawton
Florence M. Benoit	Mary Jane Lang
Wilma Louise Blattner	John Robert Lar Rien (Sept. 12, 1925)
Alson P. Brizard	Mildred E. Leavitt
Brousse Brizard	Harold E. Lohlein
Roscoe I. Brown	Fern M. Lowry
John F. Cahlan	Allan L. Lund
Donald Eisenbrey Church	Walker Grey Matheson (Sept. 12, 1925)
Harold Pullman Coffin	Gwendolyn McLeod
Muriel B. Conway	Margaret E. Murphy
Helen Dorothy Crandall	Evalyn Marie Nelson
Clariece M. Craner	Thelma M. Ninnis
May Cupples	Ruth Olmsted
Ruth C. Curtis	Katherine O'Sullivan
Louise Davies	Phyllis Imogene Poulin
Lena May De Reemer	Zelda C. Reed
Edward J. Dollard (Sept. 12, 1925)	Donnell C. Richards
Otilia C. Dotta	Donald A. Robison
Harry Clinton Duncan	Charles R. Russell
Ruth Louise Eaton	Katharine Torney Ryan
S. Morey Eva	

Silvia Frances Genasci	George Walter Sears
Charlotte J. Gibson	Rena Semenza
Bernice Gruber	Esther Maurin Summerfield
Harold H. Hansen	Bertha Peck Toombs
(Dec. 23, 1925)	(As of 1907)
Frank H. Hartung	Bert G. Spencer
Vera May Haviland	Sarah Gilberta Turner
Muriel I. Holland	Frank Marshall Underwood
Dwight Lincoln Hood	Earle A. Walther
Thelma B. Hopper	(Dec. 23, 1925)
Frances Marguerite Humphrey	Dorothy Lucie Ward
Freda Humphrey	Marjorie Webb
Alberta R. Jones	(Sept. 12, 1925)
Chauncey L. King	Benjamin Lee Welker, Jr.
Frank R. King	Marie A. Williams

Marian Blanche Wyckoff

BACHELOR OF SCIENCE

Jasper C. Atkinson	John Reummers Gillberg
Stephen Louis Berdalis	John B. Kalin
Edward R. Chittenden	Walter H. Maddox
Lloyd A. Shellabarger	

BACHELOR OF SCIENCE IN MINING ENGINEERING

Richard F. Brown	Merle Mensinger
Courtland Bell Frain	Murl R. Schrock

BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING

James Chester Atcheson	Harold Johnson
Robert Sherman Baldwin	(Dec. 23, 1925)
John R. Bonner	Raemon Charles Samuels
Charles E. Card	Neil B. Shaber
Lloyd E. Crosby	Clinton A. Smith
Gerald Fowble	Merle W. Smith
Everett W. Harris	Rocco L. Spina

Carl B. Wahlund

BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING

Louis H. Bratton	William P. Schuler
Foster W. Curtis	(Dec. 23, 1925)
Robert Terry Conroy	Jay Schumacher
Harold Frederick Dwyer	(Dec. 23, 1925)
Michail John Palashoff	

BACHELOR OF SCIENCE IN CIVIL ENGINEERING

Willis L. Edwards	Fred A. Roemer
Charles K. McClelland	Willard P. Smiley
Thomas M. Roach	(Dec. 23, 1925)

BACHELOR OF SCIENCE IN AGRICULTURE

Robert Marion Clawson	Clarence J. Thornton
William A. Goodale	Russel S. Weeks

BACHELOR OF SCIENCE IN HOME ECONOMICS

Ruth L. Gunter	Marjorie Roach
Frances Lattin Harrison	Audrey E. Springmeyer
Ada Pattenon	Helen Wells
(Dec. 23, 1925)	

TEACHER'S DIPLOMA OF HIGH SCHOOL GRADE

William Harper Anderson	Mildred Klaus
Elisabeth M. Barndt	Lawton B. Kline
Florence M. Benoit	Olga Laiolo
Stephen Louis Berdalis	(Dec. 23, 1925)
Lucile Mary Blake	Mildred E. Leavitt
Wilma Louise Blattner	Gwendolyn McLeod
Robert Marion Clawson	Evalyn Marie Nelson
Muriel B. Conway	Ruth Olmsted
Clariece M. Craner	Katherine O'Sullivan
Lloyd E. Crosby	Ada Pattenon
May Cupples	(Dec. 23, 1925)
Ruth C. Curtis	Phyllis Imogene Poulin
Louise Davies	Donnell C. Richards
Lena May De Reemer	Marjorie Roach
Ruth Louise Eaton	Rena Semenza
Silvia Frances Genasci	Lloyd A. Shellabarger
Charlotte J. Gibson	Audrey E. Springmeyer
Bernice Gruber	Sarah Gilberta Turner
Ruth L. Gunter	Dorothy Lucie Ward
Vera May Haviland	Marjorie Webb
Muriel I. Holland	(Sept. 12, 1925)
Frances Marguerite Humphrey	Benjamin Lee Welker, Jr.
Freda Humphrey	Helen Wells
Frank R. King	Marie A. Williams
Marian Blanche Wyckoff	

ENROLLMENT SUMMARY

COLLEGE OF ARTS AND SCIENCE

Seniors.....	74
Juniors.....	123
Sophomores.....	154
Freshmen.....	256
Graduate.....	32
Unclassified.....	26
Specials.....	14
	<hr/>
	679

NORMAL SCHOOL

Juniors.....	1
Sophomores.....	19
Freshmen.....	24
	<hr/>
	44

COLLEGE OF ENGINEERING

<i>Mackay School of Mines</i> —	
Seniors.....	3
Juniors.....	11
Sophomores.....	5
Freshmen.....	8
Specials.....	1
	<hr/>
	28

<i>School of Mechanical Engineering</i> —	
Juniors.....	7
Sophomores.....	5
Freshmen.....	5
Graduate.....	1
	<hr/>
	18

<i>School of Civil Engineering</i> —	
Seniors.....	7
Juniors.....	10
Sophomores.....	7
Freshmen.....	12
Specials.....	1
Unclassified.....	1
	<hr/>
	38

<i>School of Electrical Engineering</i> —	
Seniors.....	6
Juniors.....	24
Sophomores.....	19
Freshmen.....	18
Unclassified.....	1
	<hr/>
	68

COLLEGE OF AGRICULTURE

<i>School of Agriculture</i> —	
Seniors.....	4
Juniors.....	6
Sophomores.....	7
Freshmen.....	3
Specials.....	4
	<hr/>
	24

<i>School of Home Economics</i> —	
Seniors.....	4
Juniors.....	2
Sophomores.....	9
Freshmen.....	12
Unclassified.....	1
Specials.....	1
	<hr/>
	29

Total University.....	928
Enrollment of Men.....	555
Enrollment of Women.....	373
Total Summer School, 1926.....	<hr/>
	145

Total Enrollment.....	1073
Less names counted twice.....	30
Grand Total Enrollment.....	<hr/>
	1043

ROSTER OF STUDENTS

GRADUATE

C. Travis Anderson.....	Arts and Science.....	Reno
Agnes Bell.....	Arts and Science.....	Reno
Wynne Bragdon.....	Arts and Science.....	Reno
McKean Carter.....	Arts and Science.....	Reno
Dorothy Crandall.....	Arts and Science.....	Reno
Irvin Danielson.....	Arts and Science.....	Reno
Helen Duffy.....	Arts and Science.....	Sparks
Mrs. Leona B. Fowler.....	Arts and Science.....	Reno
John R. Gottardi.....	Arts and Science.....	Sparks
Ruth L. Gunter.....	Arts and Science.....	Reno
Mrs. Louise K. Hammond.....	Arts and Science.....	Reno
J. Walter Harcourt.....	Arts and Science.....	Millers
Clarence Kent.....	Mechanical Engineering.....	Reno
Frank R. King.....	Arts and Science.....	Reno
Lawton B. Kline.....	Arts and Science.....	Reno
Clara Lindsey.....	Arts and Science.....	Reno
Echo Loder.....	Arts and Science.....	Reno
Mrs. Anna F. Loomis.....	Arts and Science.....	Reno
Mrs. Catherine H. Lake.....	Arts and Science.....	Reno
Alice H. Maxwell.....	Arts and Science.....	Reno
Meredith R. Miller.....	Arts and Science.....	Reno
Beatrice Morris.....	Arts and Science.....	Reno
Vivian Morrow.....	Arts and Science.....	Reno
Helene Moser.....	Arts and Science.....	Reno
Edith M. Ruebsam.....	Arts and Science.....	Reno
Elsa Sameth.....	Arts and Science.....	Reno
Laura F. Shurtleff.....	Arts and Science.....	Reno
Alwine Sielaff.....	Arts and Science.....	Reno
Verrel A. Weber.....	Arts and Science.....	Reno
Adabel W. Wells.....	Arts and Science.....	Reno
Dorothy Whitney.....	Arts and Science.....	Sparks
Claire Williams.....	Arts and Science.....	Reno
Edwin E. Williams.....	Arts and Science.....	Reno

SENIORS

Douglas Ackerman.....	Arts and Science.....	Hawaii
Helen A. Adamson.....	Arts and Science.....	Reno
John Agrusa.....	Arts and Science.....	Oakland, Calif.

Vincent Alexander	Arts and Science	Reno
Robert A. Allen	Civil Engineering	Carson City
Naomi Ayers	Home Economics	Fallon
Lahmi J. Ballard	Arts and Science	Alturas, Calif.
Lloyd H. Barrington	Arts and Science	Reno
William H. Beasley	Arts and Science	Sparks
Norman E. Bell	Arts and Science	Winnemucca
Florence Billinghamurst	Arts and Science	Reno
Ernest Brooks	Agriculture	Reno
Margaret D. Browning	Arts and Science	Las Vegas
Owen M. Broyles	Arts and Science	Battle Mountain
W. Harve Buntin	Arts and Science	Ely
Robbins Cahill	Arts and Science	Sparks
John L. Carlson	Arts and Science	San Mateo, Calif.
Carroll Carrington	Civil Engineering	Selma, Calif.
Douglas A. Castle	Arts and Science	Elko
William O. Cheney	Civil Engineering	Oakland, Calif.
Adele Clemons	Arts and Science	Reno
J. Russell Coleman	Arts and Science	Reno
Wallace A. Coltrin	Mines	Sebastopol, Calif.
Ralston L. Crew	Agriculture	Reno
Mrs. Gladys Crosby	Arts and Science	Reno
Jack B. Cunningham	Arts and Science	Sparks
Ben J. Dieringer	Arts and Science	Reno
William H. Downey	Arts and Science	Sparks
Raymond C. Ede	Arts and Science	Loyalton, Calif.
Dwight W. Edwards	Civil Engineering	Reno
George E. Fairbrother	Electrical Engineering	Dyer
Thomas P. Fitzgerald	Arts and Science	Reno
Cornelius A. Fort	Electrical Engineering	Fallon
Ray C. Frederick	Arts and Science	Holt, Calif.
Harry J. Frost	Civil Engineering	Santa Cruz, Calif.
Lawrence J. Fuller	Arts and Science	Montello
Clarence J. Gallagher	Arts and Science	San Francisco
Milton A. Gooding	Arts and Science	Sacramento, Calif.
Amy Goodman	Arts and Science	Ely
Carmelo Guarneri	Arts and Science	Berkeley, Calif.
Fred W. Hagmeyer	Arts and Science	Carson City
Bernard H. Hartung	Arts and Science	Reno
Jack P. Hanschild	Electrical Engineering	Reno
George W. Hennen	Arts and Science	Lamoille
Ray M. Henriksen	Mines	Turlock, Calif.
Erle L. Henriksen	Arts and Science	Turlock, Calif.
Winfield C. Higgins	Agriculture	Reno

Margaret S. Hill	Arts and Science	Reno
Proctor R. Hug	Arts and Science	Tonopah
Ernest L. Inwood	Arts and Science	McGill
Dorothy R. Kaeser	Arts and Science	Reno
Frank R. Kappler	Electrical Engineering	Reno
Lewis E. Keheo	Arts and Science	Lovelock
Robert L. Ketcham	Arts and Science	Roseville, Calif.
Herman F. Keyser	Arts and Science	Reno
Kenneth K. Knopf	Electrical Engineering	Campbell, Calif.
Lyell Burke Kofoed	Home Economics	Reno
Howard Leak	Civil Engineering	Reno
Hans Lohse	Arts and Science	Fallon
R. Ethel Lunsford	Arts and Science	Reno
William D. Malloy	Arts and Science	Austin
L. Babu Manrow	Arts and Science	India
Eleanor Curieux Massie	Arts and Science	North Fork
William M. Maxwell	Mines	Dixon, Calif.
Grace McNeil	Arts and Science	Reno
Helen Medigovich	Arts and Science	Reno
Wayne Meroux	Arts and Science	Napa, Calif.
Joseph W. Min	Arts and Science	Korea
Elsie May Mitchell	Arts and Science	Reno
Hannah B. Mitchell	Arts and Science	Reno
Ada Moore	Arts and Science	Winnemucca
Grace M. Muran	Arts and Science	Reno
Vera Muran	Arts and Science	Reno
Edythe Peacocke	Arts and Science	Reno
Nevada Pedroll	Arts and Science	Reno
Charles R. Poppe	Civil Engineering	Sparks
Charlotte Porter	Home Economics	Reno
Thelma Pray	Arts and Science	Reno
Walter Reimers	Arts and Science	Oakland, Calif.
Ida Mary Robinson	Arts and Science	Reno
John B. Shields	Arts and Science	Reno
Frederic J. Siebert	Arts and Science	Reno
Carl R. Small	Electrical Engineering	Sparks
Taylor Smith	Arts and Science	Reno
Thor M. Smith	Arts and Science	Reno
Robert Stewart	Arts and Science	Reno
Wilma Fogg Squires	Arts and Science	Reno
Ellen E. Stitt	Arts and Science	Reno
Dorothy C. Trimble	Arts and Science	Reno
Alice B. Twaddle	Arts and Science	Reno

Cruz Venstrom.....	Agriculture	Fallon
Lester Walker.....	Arts and Science	San Francisco
Annie L. Walsh.....	Arts and Science	Austin
George W. Whitehead.....	Arts and Science	Sparks
Ruth V. Wingfield.....	Arts and Science	Oakland, Calif.
Pauline Wren.....	Arts and Science	Susanville, Calif.
Frances Wright.....	Home Economics	Reno
Gertrude F. Wyckoff.....	Arts and Science	Reno
JUNIORS		
Eva B. Adams.....	Arts and Science	Reno
Gregory R. Adams.....	Arts and Science	Reno
Mrs. Geneva F. Ahnert.....	Arts and Science	Reno
Lem S. Allen.....	Agriculture	Fallon
Max B. Allen.....	Arts and Science	Reno
Clark H. Amens.....	Electrical Engineering	East Ely
Fred W. Anderson.....	Arts and Science	Reno
Julian Anderson.....	Mechanical Engineering	Las Vegas
Harney C. Archias.....	Arts and Science	Brawley, Calif.
John W. Babcock.....	Electrical Engineering	San Francisco
F. Maxwell Ball.....	Mechanical Engineering	Reno
Earl W. Banister.....	Mines	Hollister, Calif.
Grace Bassett.....	Arts and Science	Reno
Anita M. Becaas.....	Arts and Science	Reno
Arnold Benson.....	Electrical Engineering	Willows, Calif.
Mae I. Bernasconi.....	Arts and Science	Reno
Marion Bernhardt.....	Arts and Science	Reno
Angus Y. Bethune.....	Mines	San Francisco
Margaret L. Beverly.....	Arts and Science	East Ely
Rudolph A. Blum.....	Arts and Science	Woodland, Calif.
LaVerne A. Blundell.....	Arts and Science	Sparks
Lois L. Bona.....	Arts and Science	Tonopah
Florie A. Braghetta.....	Mechanical Engineering	Vallejo, Calif.
Emory C. Branch.....	Electrical Engineering	Fallon
Lillian Browne.....	Arts and Science	Reno
Raymond L. Browne.....	Civil Engineering	Reno
Wayne W. Buerer.....	Mechanical Engineering	Fallon
Barbara A. Bulmer.....	Home Economics	Reno
Beverly G. Bulmer.....	Arts and Science	Reno
Vernon Cantlon.....	Arts and Science	Sparks
Alice J. Carney.....	Arts and Science	Virginia City
Charles V. Carter.....	Arts and Science	Reno
Alden B. Chace.....	Electrical Engineering	Reno
Lawrence J. Chaffee.....	Arts and Science	Visalia, Calif.

Tess Chambers.....	Arts and Science	Oakland, Calif.
Kathryn I. Clark.....	Normal	Reno
William E. Clawson.....	Arts and Science	Reno
Ernest M. Clays.....	Electrical Engineering	McGill
Leslie E. Clover.....	Electrical Engineering	Woodland, Calif.
Harvey T. Colby.....	Agriculture	Los Angeles, Calif.
Elizabeth Coleman.....	Arts and Science	Carson City
Bruce J. Connelly.....	Arts and Science	Reno
Bess Corrigan.....	Arts and Science	South Pasadena, Calif.
John W. Corvin.....	Civil Engineering	Roseville, Calif.
Leo F. Corvino.....	Arts and Science	San Francisco
Arthur R. Cox.....	Arts and Science	San Diego, Calif.
Walter J. Cox.....	Arts and Science	Yerington
Garnet L. Cullom.....	Arts and Science	McGill
Walter I. Cunningham.....	Arts and Science	Sparks
Catharine Curieux.....	Arts and Science	Tonopah
Katherine M. Davidson.....	Home Economics	Berkeley, Calif.
Augustus M. Dixon.....	Mines	Doyle, Calif.
Donna Dove.....	Arts and Science	Elko
Elsbeth Dove.....	Arts and Science	Elko
Edith M. Dowd.....	Arts and Science	Sparks
Olive D. Dunn.....	Arts and Science	Bishop, Calif.
Margaret Ernst.....	Arts and Science	Fallon
Tillie G. Evansen.....	Arts and Science	Tonopah
Herbert M. Faulkner.....	Civil Engineering	Alturas, Calif.
Ervie A. Ferris.....	Mechanical Eng.	Westwood, Calif.
Laurence E. Fish.....	Mines	Benicia, Calif.
Helen C. Fox.....	Arts and Science	Reno
Maude L. Fulstone.....	Arts and Science	Reno
George F. Gadda.....	Arts and Science	Reno
Joe Garcia.....	Civil Engineering	Visalia, Calif.
Christina M. Garteiz.....	Arts and Science	Winnemucca
Arthur W. Gay.....	Electrical Eng.	Palo Cedro, Calif.
Cecil H. Gay.....	Electrical Eng.	Palo Cedro, Calif.
Serge Glyachenkoff.....	Mines	China
Hazel Greninger.....	Arts and Science	South America
Kathleen A. Griffin.....	Arts and Science	Tonopah
John G. Hafner.....	Arts and Science	Sacramento, Calif.
Rubel D. Hansen.....	Arts and Science	Gardnerville
Andrew N. Hanson.....	Electrical Eng.	Steamboat Springs
Clair Harper.....	Arts and Science	Sparks
Geraldine R. Harvey.....	Arts and Science	Paradise Valley
Walter J. Herz.....	Electrical Engineering	Reno

Helen M. Hibbert.....	Arts and Science.....	Susanville, Calif.
Alfred D. Hill.....	Arts and Science.....	Pasadena, Calif.
Leland Hinckley.....	Mines.....	Reno
Forrest R. Holdcamper.....	Arts and Science.....	Sparks
Eleanor Jackson.....	Arts and Science.....	Eureka, Calif.
Margaret M. Jenkins.....	Arts and Science.....	Johnstonville, Calif.
Bernice Johnson.....	Arts and Science.....	Carson City
Gordon O. Johnson.....	Electrical Engineering.....	Reno
Laurence E. Johnson.....	Arts and Science.....	Arbuckle, Calif.
Louise M. Jones.....	Arts and Science.....	Reno
George K. Kallenback.....	Electrical Engineering.....	Fallon
Serge Kondrashoff.....	Mechanical Engineering.....	China
Floyd J. Lamb.....	Arts and Science.....	Reno
Rudolph H. Larsen.....	Arts and Science.....	Mendocino, Calif.
Michael W. Lawlor.....	Arts and Science.....	Victor, Iowa
Justus Lawson.....	Arts and Science.....	Dillon Beach, Calif.
Granville Leavitt.....	Arts and Science.....	Yerington
Claire Lehmkuhl.....	Electrical Engineering.....	Reno
Ruth Lord.....	Arts and Science.....	Eureka, Calif.
Isabel T. Loring.....	Arts and Science.....	Fallon
Naomi G. Lothrop.....	Arts and Science.....	Sacramento, Calif.
George C. Lotz.....	Mechanical Eng.....	King City, Calif.
Juanita Lowe.....	Arts and Science.....	Fallon
Ainsley M. Mabson.....	Arts and Science.....	Reno
Mabel Mariani.....	Arts and Science.....	Sparks
Adele A. Martin.....	Arts and Science.....	Reno
Whiting F. Martin.....	Agriculture.....	Bakersfield, Calif.
Martin H. Melendy.....	Arts and Science.....	Hollister, Calif.
Ian Mensinger.....	Arts and Science.....	Modesto, Calif.
Robert Mensinger.....	Arts and Science.....	Modesto, Calif.
Ray H. Misener.....	Mines.....	Oakland, Calif.
Robert A. Mitchell.....	Arts and Science.....	Reno
Julius A. Molina.....	Arts and Science.....	Reno
Alice M. Molini.....	Arts and Science.....	Dyer
Warren L. Monroe.....	Arts and Science.....	Sparks
Mary E. Moore.....	Arts and Science.....	Los Angeles
Erwin F. Morrison.....	Civil Engineering.....	Westwood, Calif.
Frances M. Nelson.....	Arts and Science.....	Piedmont, Calif.
Henry C. Nelson.....	Arts and Science.....	Reno
Sievert J. Nelson.....	Arts and Science.....	Reno
Joseph Nenzel.....	Arts and Science.....	Reno
B. Ernest Nichols.....	Mines.....	Modesto, Calif.
Lawrence Niswander.....	Electrical Eng.....	Watsonville, Calif.
Leonard W. Noblitt.....	Arts and Science.....	Las Vegas

Esther Breeze Oar.....	Arts and Science.....	Fallon
Theodora Olmsted.....	Arts and Science.....	Wells
Lynn R. Olson.....	Electrical Engineering.....	Reno
Therese Pasquale.....	Arts and Science.....	Paradise Valley
Lester G. Payne.....	Arts and Science.....	Sparks
Altha Pierson.....	Arts and Science.....	Reno
William B. Pillsbury.....	Mines.....	Chico, Calif.
Victor J. Pimentel.....	Civil Engineering.....	Reno
Wilma A. Prewett.....	Arts and Science.....	Auburn, Calif.
*Mary Rand.....	Arts and Science.....	Ely
Ellis R. Randall.....	Arts and Science.....	Virginia City
Thomas W. Raycraft.....	Agriculture.....	Gardnerville
Gertrude Reilly.....	Arts and Science.....	Ely
Charles S. Renwick.....	Arts and Science.....	Richmond, Calif.
Harvey A. Reynolds.....	Civil Engineering.....	Reno
Comer A. Robertson.....	Arts and Science.....	Visalia, Calif.
Leonard O. Robertson.....	Electrical Eng.....	Gardnerville, Calif.
Virgil W. Ross.....	Arts and Science.....	Martinez, Calif.
Gertrude E. Sauer.....	Arts and Science.....	Franktown
William S. Sawle.....	Arts and Science.....	Tonopah
Otto R. Schulz.....	Agriculture.....	Carson City
Henrietta M. Schwab.....	Arts and Science.....	Eureka, Calif.
Lionel R. Scott.....	Arts and Science.....	Reno
L. Mardelle Scott.....	Arts and Science.....	Reno
William Keith Scott.....	Mines.....	Los Angeles
Walter E. Sellman.....	Electrical Engineering.....	Reno
Betty Sue Shaw.....	Arts and Science.....	Fallon
Carl B. Shelly.....	Arts and Science.....	Sparks
James A. Sherritt.....	Arts and Science.....	Sacramento, Calif.
Louis V. Skinner.....	Mines.....	Lone Pine, Calif.
Carol K. Smith.....	Arts and Science.....	Sparks
Junius A. Smith.....	Arts and Science.....	Santa Barbara, Calif.
Ruth G. Smithe.....	Arts and Science.....	Claremont, Calif.
Mrs. Harriet G. Spann.....	Arts and Science.....	Reno
Darwin W. Sparks.....	Arts and Science.....	Reno
Genevieve Spencer.....	Arts and Science.....	Sparks
Lester L. Spinney.....	Civil Engineering.....	Fortuna, Calif.
Charles R. Squires.....	Electrical Engineering.....	Las Vegas
William Stark.....	Arts and Science.....	San Francisco
Bryon F. Stetler.....	Arts and Science.....	Reno
Budd O. Stevenson.....	Arts and Science.....	Reno
Lucile Summerfield.....	Arts and Science.....	Mina
Wallace E. Taber.....	Arts and Science.....	Elko

*Died November 7, 1926.

William J. Tavelle.....	Electrical Engineering.....	Deeth
William F. Taylor.....	Arts and Science.....	Reno
Mrs. Helen C. W. Turner.....	Arts and Science.....	Reno
Annie I. Twaddle.....	Arts and Science.....	Carson City
Gene Ray Walker.....	Arts and Science.....	Sparks
Imogene Warder.....	Arts and Science.....	Reno
Charles J. Watkins.....	Electrical Engineering.....	Reno
Archie A. Watson.....	Arts and Science.....	Sacramento, Calif.
John J. Welsh.....	Electrical Engineering.....	Reno
Thomas J. Welsh.....	Electrical Engineering.....	Reno
Carroll W. Westfall.....	Civil Eng.....	Goshen Junction, Calif.
Frances Westfall.....	Arts and Science.....	Reno
Zula Wheeler.....	Arts and Science.....	Reno
Roy Whitacre.....	Arts and Science.....	Yerington
Shaler G. Wilder.....	Agriculture.....	East Braintree, Mass.
Emerson J. Wilson.....	Arts and Science.....	Reno
Charles E. Wood.....	Civil Engineering.....	Placerville, Calif.
Norton Earl Worden.....	Arts and Science.....	Palo Alto, Calif.
George F. Wright.....	Arts and Science.....	Elko
Edward N. Ziegler.....	Electrical Engineering.....	Reno

SOPHOMORES

Robert E. Adams.....	Arts and Science.....	Sparks
Robert W. Adamson.....	Mines.....	Reno
J. Adrian Aikin.....	Arts and Science.....	Reno
Mabel E. Aljets.....	Arts and Science.....	East Ely
Dorothy Anderson.....	Home Economics.....	Reno
Evelyn M. Anderson.....	Arts and Science.....	Tonopah
Orville W. Anderson.....	Electrical Engineering.....	Reno
Robert E. Annand.....	Arts and Science.....	Ely
Howell V. Armistead.....	Arts and Science.....	Newman, Calif.
Harold A. Bailey.....	Arts and Science.....	Sparks
James C. Bailey.....	Arts and Science.....	Fallon
Lucille M. Baker.....	Normal.....	McGill
Eillen K. Baldwin.....	Arts and Science.....	Alturas, Calif.
Fred C. Barnum.....	Arts and Science.....	Eureka, Calif.
Dale C. Bell.....	Arts and Science.....	Elko
Donald Bernstein.....	Arts and Science.....	McGill
Ernest Bingham.....	Arts and Science.....	Fallon
Robert Blackmun.....	Arts and Science.....	Winton, Calif.
Margaret M. Bogart.....	Arts and Science.....	Reno
Mary Clare Boland.....	Arts and Science.....	Reno
Glenn Bream.....	Arts and Science.....	Reno
Frank L. Bristol.....	Arts and Science.....	South Africa
Lucas Thurber Brockbank.....	Electrical Engineering.....	Reno

Beatrice Brown.....	Normal.....	Reno
Jeanette M. Brown.....	Arts and Science.....	Reno
Joseph Bulasky.....	Arts and Science.....	Reno
Sollie Bulasky.....	Arts and Science.....	Reno
Herbert T. Bunker.....	Arts and Science.....	Alturas, Calif.
Leland M. Burge.....	Agriculture.....	Visalia, Calif.
Douglas A. Busey.....	Arts and Science.....	Reno
Gladys A. Cafferata.....	Arts and Science.....	Reno
Wesley Carpenter.....	Arts and Science.....	Woodland, Calif.
Helen Clancy.....	Arts and Science.....	San Francisco
Frank N. Clarke.....	Arts and Science.....	Reno
Gladys A. Clausen.....	Arts and Science.....	Reno
Laurence J. Collins.....	Mechanical Eng.....	Auburn, Calif.
Mabel L. Connor.....	Arts and Science.....	Reno
William Burford Cook.....	Arts and Science.....	Oakland, Calif.
Alden Copeland.....	Arts and Science.....	Ruth
William E. Copren.....	Arts and Science.....	Sierraville, Calif.
Carlos F. Cortes.....	Arts and Science.....	Martinez, Calif.
Lee Couch.....	Arts and Science.....	Reno
Helen C. Coverston.....	Arts and Science.....	Fallon
Gael G. Curto.....	Arts and Science.....	East Ely
Donald S. Dakin.....	Arts and Science.....	Sparks
Cyrus K. Dam.....	Electrical Eng.....	Berkeley, Calif.
Alexis Derkatch.....	Civil Engineering.....	China
Grace Devlin.....	Normal.....	Pioche
Michele DiRiccio.....	Arts and Science.....	McGill
Mary K. Donohue.....	Arts and Science.....	Tonopah
Edward A. Ducker.....	Arts and Science.....	Carson City
Mary Duffy.....	Home Economics.....	Sparks
Helen M. Dunn.....	Arts and Science.....	Goldfield
William E. Dunn.....	Arts and Science.....	Fortuna, Calif.
George M. Dunow.....	Civil Engineering.....	Bowman, Calif.
Renee M. Duque.....	Arts and Science.....	Reno
Dorothy A. Eaton.....	Arts and Science.....	Reno
Herman W. Eaton.....	Arts and Science.....	Reno
Elbert B. Edwards.....	Arts and Science.....	Panaca
C. Jerold Elsie.....	Arts and Science.....	Grand Lodge, Mich.
Edna V. Ericson.....	Arts and Science.....	Reno
Ralph P. Farnsworth.....	Arts and Science.....	Berkeley, Calif.
Norman J. Farrell.....	Arts and Science.....	Reno
Stephen B. Fiske.....	Arts and Science.....	Ocean Beach, Calif.
Hervey F. Flint.....	Arts and Science.....	Hollister, Calif.
Romayne E. Foley.....	Arts and Science.....	Nevada City, Calif.
Douglas H. Ford.....	Arts and Science.....	Fallon

Helen M. Fowler	Normal	Reno
John W. Frickstad	Mines	Oakland, Calif.
Robert C. Friend	Arts and Science	Oakland, Calif.
Carl F. Fuetsch	Arts and Science	Tonopah
Walter V. Galbraith	Civil Engineering	Santa Rosa, Calif.
Russell C. Garcia	Arts and Science	Visalia, Calif.
Norma Gardella	Home Economics	Reno
Kim Gee	Mechanical Engineering	Oakland, Calif.
Augustus F. Giberson	Arts and Science	Watsonville, Calif.
Ruth Glasscock	Normal	Fallon
Marion M. Green	Arts and Science	Reno
Jack B. Gregory	Arts and Science	Berkeley, Calif.
Kathrine Gross	Arts and Science	Eureka, Calif.
Leon W. Hainer	Arts and Science	Binghamton, N. Y.
Alice E. Halley	Arts and Science	Reno
Jack L. Halley	Arts and Science	Reno
Fred W. Hammond	Arts and Science	San Francisco
Reynold F. Hansen	Electrical Engineering	Salinas, Calif.
Richard A. Harcourt	Arts and Science	Millers
Patricia C. Harding	Home Economics	Sparks
Eugene D. Hardison	Mines	Long Beach, Calif.
Ellen Harrington	Arts and Science	Fremont, Neb.
Margaret E. Hartman	Arts and Science	Reno
Dorothy Haviland	Normal	Winnemucca
Adelaide Hawks	Arts and Science	San Francisco
John J. Higginbotham	Arts and Science	Elko
Richard P. Hillman	Arts and Science	Sparks
Constance M. Holland	Home Economics	Reno
Edmund E. Hoskins	Electrical Engineering	Reno
John M. Hough	Electrical Engineering	Nichols, Calif.
Martha Huber	Arts and Science	Tonopah
Mrs. Maurine E. Hudson	Normal	Panaca
Mildred W. Hughes	Arts and Science	Reno
John E. Humphrey	Arts and Science	Reno
Thomas A. Jackson	Arts and Science	Goldfield
Leonard G. Jacob	Arts and Science	Sparks
Herbert A. Jacobs	Arts and Science	Reno
Zenda V. Johns	Arts and Science	Sparks
Elizabeth H. Johnson	Arts and Science	Fallon
Flora Jones	Normal	Overton
Jack B. Kellogg	Arts and Science	Redwood City, Calif.
Walden G. Kline	Arts and Science	Reno
Franklin Koehler	Arts and Science	Mason
Robert J. Krack	Arts and Science	Reno

Russell Laird	Mechanical Eng.	Bakersfield, Calif.
Dale D. Lamb	Electrical Engineering	Reno
Marjorie Lane	Arts and Science	Berkeley, Calif.
Maxwell Larsen	Agriculture	Ferndale, Calif.
Allye W. Lawson	Electrical Engineering	Las Vegas
Dana Leet	Arts and Science	Dayton
Jessie Leonard	Home Economics	Virginia City
Mervyn O. Little	Arts and Science	Salinas, Calif.
Louis E. Lombardi	Arts and Science	Reno
Ira Milton Long	Electrical Engineering	Eureka, Calif.
Adeline H. Lovell	Arts and Science	Sacramento, Calif.
Kara Lucas	Arts and Science	Fallon
Alice R. Lunsford	Arts and Science	Reno
Elmer K. Lyon	Arts and Science	Winnemucca
Helen D. Mahoney	Arts and Science	San Francisco
Kathleen Malloy	Arts and Science	San Francisco
Hoyt G. Martin	Arts and Science	Reno
Afton Mathews	Normal	Panaca
Alden McCollum	Electrical Engineering	Reno
Anna M. McCoy	Normal	Battle Mountain
Ralph McIlwaine	Arts and Science	San Francisco
William E. McNair	Electrical Engineering	Goldfield
William L. McQuillan	Arts and Science	Tonopah
Mark W. Menke	Agriculture	Reno
Sylvia Michal	Arts and Science	Round Mountain
Dorian Miller	Arts and Science	Goleta, Calif.
Laddie J. Miller	Arts and Science	Oakland, Calif.
Loretta R. Miller	Arts and Science	Fernley
Florence Mitchell	Normal	Reno
Charles Lloyd Moon	Agriculture	Berkeley, Calif.
Ruth D. Moore	Arts and Science	Reno
Orville W. Moyes	Arts and Science	Stockton, Calif.
Santos Murillo	Mines	Philippine Islands
Frank K. Nelson	Civil Engineering	Reno
Carol N. Newell	Electrical Engineering	Fortuna, Calif.
Clarence Newman	Arts and Science	Ely
Herold H. Newton	Agriculture	Bakersfield, Calif.
Yell N. Nobles	Arts and Science	Cloverdale, Calif.
Will J. Norton	Arts and Science	Reno
Arthur L. Ocheltree	Arts and Science	Reno
Louise L. Oppio	Arts and Science	Sparks
James G. Osborne	Mines	San Francisco
Beatrice Ott	Arts and Science	Nevada City, Calif.
M. Violet Palsgrove	Normal	Reno

Janet S. Pardee	Arts and Science	Visalia, Calif.
Sheila Parker	Arts and Science	Reno
Lillian Pearce	Arts and Science	Winnemucca
Loran T. Pease	Arts and Science	Oakland, Calif.
Vernon Penrose	Arts and Science	Yerington
George L. Pettycrew	Electrical Engineering	Goldfield
Alden J. Plumley	Arts and Science	Reno
Beatrice Plummer	Arts and Science	Reno
Edwin B. Polhemus	Arts and Science	Sacramento, Calif.
Elizabeth Pugh	Normal	Berkeley, Calif.
Mrs. Gladys Putney	Normal	Reno
Walter Putz	Civil Engineering	Laton, Calif.
Homer J. Raycraft	Arts and Science	Gardnerville
Oltman Reil	Agriculture	Winnemucca
Marion C. Richards	Arts and Science	McGill
John F. Richardson	Arts and Science	Reno
Kenneth Robison	Arts and Science	Sparks
Colin E. Ross	Arts and Science	Lovelock
Ellen D. Russell	Arts and Science	Deeth
Lucile E. Sanford	Arts and Science	Fallon
Edith V. Scribner	Arts and Science	Loyalton, Calif.
Lloyd Searcy	Electrical Engineering	Reno
Merle Sellman	Arts and Science	Reno
Wyman J. Sexsmith	Arts and Science	Virginia City
Elizabeth Shaber	Home Economics	Sparks
Mildred B. Sheats	Normal	Reno
Fred F. Small	Electrical Engineering	Sparks
Helen Smith	Arts and Science	Reno
Ruth A. Smith	Arts and Science	Arthur
Wallace S. Smith	Arts and Science	Elko
Harold D. Starr	Arts and Science	Reno
Kenneth St. Clair	Arts and Science	Oakland, Calif.
E. Randolph Stigen	Mechanical Eng.	Oakland, Calif.
Chris B. Stockton	Arts and Science	Bakersfield, Calif.
Wilbur Stodieck	Agriculture	Gardnerville
Ruth Streeter	Arts and Science	Elko
Cecelia Sullivan	Arts and Science	Los Gatos, Calif.
Walter R. Sutherland	Arts and Science	Reno
Milton Taylor	Arts and Science	Loomis, Calif.
Julia Thein	Home Economics	Fallon
Mary Margaret Thompson	Home Economics	Elko
John B. Tompkins	Arts and Science	Berkeley, Calif.
Thomas O. Towle	Arts and Science	Reno
Robin A. Trimble	Arts and Science	Reno

Eugene H. Tucker	Electrical Eng.	Nevada City, Calif.
Fred W. Underwood	Arts and Science	Reno
David Van Lennep	Electrical Engineering	Auburn, Calif.
Eloise P. Walker	Arts and Science	Sparks
John A. Walsh	Electrical Engineering	Reno
Joseph Roy Walsh	Arts and Science	Reno
Earl Warren	Arts and Science	Berkeley, Calif.
Gretchen Watson	Arts and Science	Oakland, Calif.
James A. Weathers	Arts and Science	Reno
Walter W. Webb	Arts and Science	Ruth
Phillip R. Weber	Arts and Science	Hollywood, Calif.
Elizabeth Weeks	Arts and Science	Wells
LaVerne M. Weir	Arts and Science	Wells
Goldeen B. West	Normal	Overton
Charles Bernard White	Electrical Engineering	Truckee, Calif.
Foriland Whitehead	Arts and Science	Las Vegas
Thomas H. Wigglesworth	Civil Engineering	Verdi
M. Genevieve Williams	Arts and Science	Fallon
Lelia E. Williams	Normal	Reno
Lucile Butler Williams	Normal	Sparks
Maud R. Williams	Normal	Reno
Thomas C. Wilson	Arts and Science	Reno
Glen Wimer	Civil Engineering	Salinas, Calif.
Eugene F. Wines	Arts and Science	Ruby Valley
G. Maxwell Wright	Mechanical Engineering	Reno
Harry Young	Arts and Science	Reno

FRESHMEN

Ralph T. Adamson	Electrical Engineering	Winnemucca
Martha Lee Addenbrooke	Arts and Science	Reno
Laverne G. Ahlers	Normal	Eureka
Jack Albin	Electrical Engineering	North Fork
Meryl Bill Allen	Arts and Science	Reno
Edith Marion Allison	Normal	Gardnerville
Raymond G. Amerine	Arts and Science	Visalia, Calif.
Idel J. Anderson	Arts and Science	San Francisco
Louyne Anderson	Normal	Wadsworth
Derrill C. Angst	Electrical Engineering	Eureka, Calif.
Ina E. Angus	Normal	Reno
Meidell Applegate	Mines	Berkeley, Calif.
Claribel Austin	Normal	Fernley
Rachel Bafford	Home Economics	Fallon
David J. Baird	Arts and Science	San Francisco
Margaret G. Baird	Arts and Science	Ely

Fred Baldini.....	Arts and Science.....	Yerington
Walter Ballerstein.....	Electrical Engineering.....	Reno
Bernice Barnes.....	Arts and Science.....	Reno
Bruce R. Battin.....	Arts and Science.....	Mina
Beth Beemer.....	Arts and Science.....	Sparks
Andrea E. Bell.....	Home Economics.....	Reno
Aurora Belmonte.....	Arts and Science.....	Stewart
Norris Bertrand.....	Arts and Science.....	Reno
Alan H. Bible.....	Arts and Science.....	Fallon
Bernice Blair.....	Arts and Science.....	Oakland, Calif.
Grant L. Bowen.....	Arts and Science.....	Carson City
Frank Bowman.....	Arts and Science.....	Visalia, Calif.
Susette Bowman.....	Arts and Science.....	San Francisco
Elthere Braun.....	Normal.....	Bunkerville
Thomas Brawley.....	Civil Engineering.....	Reno
Arthur I. Brewster.....	Mines.....	Huntington Beach, Calif.
Gladys I. Brooner.....	Normal.....	Hazen
LaMonte R. Brown.....	Mechanical Eng.....	Berkeley, Calif.
Thomas E. Brown.....	Arts and Science.....	Orland, Calif.
Charles A. Browne.....	Arts and Science.....	Reno
Hilda Browning.....	Arts and Science.....	Las Vegas
Alice M. Broyles.....	Arts and Science.....	Battle Mountain
Kenneth W. Buck.....	Arts and Science.....	Reno
Edward Don Dudge.....	Arts and Science.....	Bakersfield, Calif.
Kendal W. Bunker.....	Arts and Science.....	Bunkerville
Cecil B. Burkham.....	Agriculture.....	Reno
Elizabeth Burritt.....	Arts and Science.....	Reno
Don L. Burton.....	Arts and Science.....	Sacramento, Calif.
Mary June Byrnes.....	Arts and Science.....	Pittville, Calif.
Albert P. Campbell.....	Arts and Science.....	Los Angeles
Elliott R. Cann.....	Civil Engineering.....	Reno
Gretchen A. Cardinal.....	Arts and Science.....	Gardnerville
Emery F. Chace.....	Arts and Science.....	Reno
Marion L. Cheney.....	Arts and Science.....	Reno
Agnes Christensen.....	Home Economics.....	Sparks
James W. Clark.....	Arts and Science.....	Gerlach
Saralee Clark.....	Arts and Science.....	Virginia City
Charles F. Clifford.....	Arts and Science.....	Sparks
Francis J. Coddington.....	Arts and Science.....	Yerington
Charmion B. Coe.....	Arts and Science.....	Altadena, Calif.
Harris J. Coffill.....	Arts and Science.....	Sonora, Calif.
Nevada Coll.....	Arts and Science.....	Reno
Robert W. Conant.....	Arts and Science.....	Reno
Robert E. Cooley.....	Arts and Science.....	Gold Hill

Charlotte Cooper.....	Normal.....	Overton
Norman Coughlin.....	Arts and Science.....	Reno
Roy G. Coverston.....	Electrical Engineering.....	Fallon
Lucy E. Crescenzo.....	Arts and Science.....	Reno
Carol W. Cross.....	Arts and Science.....	Sparks
Genevieve J. Crothers.....	Arts and Science.....	Aberdeen, Wash.
Ilma R. Crotty.....	Arts and Science.....	Carson City
Sylvia A. Crowell.....	Arts and Science.....	Carson City
Ruth R. Crowley.....	Arts and Science.....	Sparks
Darrell N. Cuff.....	Arts and Science.....	Brawley, Calif.
Edward C. Cupit.....	Arts and Science.....	Tonopah
J. Ellsworth Dakin.....	Civil Engineering.....	Sparks
Gwendolyn Daniel.....	Arts and Science.....	Reno
Russell Davidson.....	Arts and Science.....	Reno
Bessie M. Davie.....	Arts and Science.....	San Francisco
Robert W. Davis.....	Electrical Engineering.....	Reno
Frederic W. De Longchamps.....	Arts and Science.....	Reno
Joseph A. De Reemer.....	Electrical Engineering.....	Sparks
Len Devlin.....	Normal.....	Pioche
Arthur Dial.....	Arts and Science.....	Ely
Brendon Donovan.....	Electrical Engineering.....	Reno
Willard T. Douglas.....	Electrical Engineering.....	Reno
Robert L. Douglass.....	Arts and Science.....	Fallon
Robert Drake.....	Arts and Science.....	Reno
Maud E. Dunbar.....	Arts and Science.....	Fallon
Helen M. Dunsneath.....	Arts and Science.....	Reno
Adeline Duque.....	Arts and Science.....	Reno
Andre P. Duque.....	Arts and Science.....	Reno
Bertrand Duque.....	Arts and Science.....	Reno
William J. Durbrow.....	Civil Engineering.....	Willows, Calif.
Esther Durkee.....	Arts and Science.....	Reno
Edward A. Dyer.....	Arts and Science.....	Wabuska
Nellie M. Earl.....	Normal.....	Overton
Margaret Jane Eaton.....	Home Economics.....	Reno
Henry R. Eddy.....	Mechanical Engineering.....	Elko
Charles D. Eldridge.....	Arts and Science.....	Pasadena, Calif.
Dorothy H. Emmett.....	Arts and Science.....	Fresno, Calif.
Milton Ennor.....	Agriculture.....	Sparks
Mona M. Ennor.....	Arts and Science.....	Sparks
Frank Estes.....	Arts and Science.....	Reno
Howard Estes.....	Mines.....	Reno
Robert M. Estes.....	Arts and Science.....	Battle Mountain
John H. Etchebarren.....	Arts and Science.....	Reno
Peter J. Etchebarren.....	Arts and Science.....	Reno

Verdie L. Fant.....	Arts and Science.....	Lovelock
Cletus Fisher.....	Arts and Science.....	Reno
Ruth M. Fish.....	Arts and Science.....	Long Beach, Calif.
Leonard A. Fox.....	Arts and Science.....	Reno
Neil A. Fox.....	Arts and Science.....	Reno
Sherwood French.....	Arts and Science.....	San Francisco
Anna F. Frey.....	Home Economics.....	Reno
Hereford Garland.....	Arts and Science.....	San Francisco
Evelyn H. Gault.....	Arts and Science.....	Reno
Raymond R. Germain.....	Arts and Science.....	Reno
Charles Ghilardi.....	Civil Engineering.....	Milbrae, Calif.
William H. Gibson.....	Civil Engineering.....	Gardnerville
Andrew J. Gilman.....	Arts and Science.....	Bakersfield, Calif.
John Gilmartin.....	Arts and Science.....	Sparks
Bethel A. Goering.....	Normal.....	Reno
George E. Gray.....	Civil Engineering.....	Oakland, Calif.
George Sumner Green.....	Arts and Science.....	Reno
Blodwyn E. Griffith.....	Arts and Science.....	Elko
Marshall A. Guisti.....	Arts and Science.....	Goldfield
Andrew N. Haight.....	Arts and Science.....	Fallon
Jeanette Hamilton.....	Arts and Science.....	Oakland, Calif.
Claude W. Hammond.....	Mines.....	Oakland, Calif.
Orpha Hammond.....	Normal.....	Ursine
Mary E. Hancock.....	Arts and Science.....	Reno
Melville D. Hancock.....	Arts and Science.....	Reno
Guy S. Harbin.....	Arts and Science.....	Elko
Margaret E. Harris.....	Arts and Science.....	Ely
Sara L. Hartman.....	Arts and Science.....	Reno
Elmore L. Haslett.....	Arts and Science.....	Reno
Carson Hawkins.....	Arts and Science.....	Reno
Ellen Prince Hawkins.....	Arts and Science.....	Reno
Denton H. Hays.....	Arts and Science.....	Reno
Norman Henderson.....	Arts and Science.....	Reno
William Herbert.....	Arts and Science.....	San Francisco
Gerdy Hexem.....	Arts and Science.....	Ely
Joe Hollinger.....	Normal.....	Ursine
Inez A. Holstrom.....	Arts and Science.....	Lovelock
Barbara F. Horton.....	Arts and Science.....	Virginia City
Dale Howell.....	Arts and Science.....	Las Vegas
Haines J. Howell.....	Arts and Science.....	Reno
Jack M. Howell.....	Arts and Science.....	Reno
Florence A. Hunley.....	Arts and Science.....	Oakland, Calif.
Margaret Hunt.....	Normal.....	Vya
Walter A. Hunting.....	Arts and Science.....	Carson City

Gordon Ingram.....	Arts and Science.....	Grass Valley, Calif.
Gwendolyn Ingram.....	Arts and Science.....	Reno
Donald H. Inskip.....	Arts and Science.....	Arcata, Calif.
George W. Jackson.....	Arts and Science.....	Ely
Alger J. Jacobs.....	Arts and Science.....	Elko
John Jauregui.....	Arts and Science.....	Reno
James W. Johnson.....	Civil Engineering.....	Portola, Calif.
Walter D. Johnson.....	Arts and Science.....	Elko
Thomas W. Johnson.....	Arts and Science.....	Walnut Creek, Calif.
Grace J. Jones.....	Normal.....	Reno
Jennie Mae Kane.....	Arts and Science.....	Carson City
Rose B. Kauffman.....	Arts and Science.....	San Francisco
Lou A. Kellison.....	Arts and Science.....	Sparks
George E. Kibbe.....	Arts and Science.....	Oakland, Calif.
Calvin Kiedaisch.....	Civil Engineering.....	Oakland, Calif.
Leon Jack King.....	Arts and Science.....	Oakland, Calif.
Raylyn M. Kinney.....	Arts and Science.....	Reno
Charles C. Kitzmeyer.....	Arts and Science.....	Carson City
Floyd Knickerbocker.....	Arts and Science.....	Las Vegas
Hazel Kotick.....	Arts and Science.....	Tacoma, Wash.
Loene A. Kramer.....	Normal.....	Golconda
Marguerite Krick.....	Arts and Science.....	Reno
Neil W. Lamb.....	Electrical Engineering.....	Reno
George W. Lang.....	Arts and Science.....	Lovelock
Glenn J. Lawlor.....	Arts and Science.....	Reno
Hugo C. Lawton.....	Arts and Science.....	Reno
Stanley C. Leahigh.....	Arts and Science.....	Reno
Alice A. LeMaire.....	Arts and Science.....	Battle Mountain
Judson D. Levensaler.....	Arts and Science.....	San Francisco
Margaret O. Lewis.....	Arts and Science.....	Seattle, Wash.
Bill A. Ligon.....	Arts and Science.....	Reno
Leland L. Lindblom.....	Arts and Science.....	Gerlach
Harry Lipparelli.....	Arts and Science.....	Elko
Fred Lohse.....	Arts and Science.....	Fallon
Alvin Lombardi.....	Arts and Science.....	Reno
Inez Loomis.....	Arts and Science.....	Reno
Catherine Loring.....	Arts and Science.....	Reno
Dorothy R. Lowe.....	Arts and Science.....	Sparks
James K. Lowers.....	Arts and Science.....	Los Angeles
Keith D. Lucas.....	Arts and Science.....	Fallon
Hugh J. Macdonald.....	Arts and Science.....	Reno
Duane E. Mack.....	Arts and Science.....	Minden
Helen F. Mann.....	Arts and Science.....	Smith
Gilbert J. Matthews.....	Arts and Science.....	Yerington

Alvin J. McCuistion	Electrical Engineering	Montello
Edith McCuistion	Arts and Science	Montello
Willard McKeehan	Arts and Science	Eureka, Calif.
Lucille McKemey	Normal	Loyalton, Calif.
Daniel W. McKnight	Arts and Science	Reno
Edith McLaughlin	Arts and Science	Vallejo, Calif.
William H. McNair	Electrical Engineering	Goldfield
Katherine Mergen	Home Economics	Sparks
Robert Merritt	Arts and Science	San Francisco
Martha Metscher	Normal	Carson City
Jeane A. Michael	Home Economics	San Leandro, Calif.
Glenn E. Millar	Arts and Science	Reno
Albert E. Miller	Arts and Science	Marysville, Calif.
Arletta B. Miller	Arts and Science	Harford, Calif.
Harlan L. Miller	Arts and Science	Reno
Everett Montgomery	Arts and Science	Colusa, Calif.
Allan F. Mori	Mines	Carson City
Helen E. Morris	Arts and Science	Tonopah
Gibson K. Morrison	Arts and Science	Reno
Belva Murphy	Arts and Science	San Francisco
Leslie G. Murphy	Arts and Science	Deeth
Luella Murphy	Arts and Science	Reno
Gilbert Musgrove	Arts and Science	Reno
Precious Nash	Arts and Science	Reno
Marjorie Nelligan	Arts and Science	Reno
Corinne A. Nelson	Arts and Science	Piedmont, Calif.
Donald Nelson	Arts and Science	Reno
Valborg Nelson	Arts and Science	Reno
Morris A. Newcomb	Arts and Science	Reno
Cecil A. Newton	Arts and Science	Loyalton, Calif.
Albert Nichols	Arts and Science	Reno
Laurel D. Nichols	Mines	Reno
Kathleen Mae O'Banion	Arts and Science	Reno
Wilfred Alan Odell	Civil Engineering	Fallon
Virginia I. Olds	Arts and Science	Yerington
Pearl Olinghouse	Normal	Pioche
R. Mitchell Oliver	Arts and Science	Stockton, Calif.
Valborg Olsen	Arts and Science	Reno
Mary O'Neil	Arts and Science	Tonopah
Ruth E. O'Neil	Arts and Science	Portola, Calif.
Lucile Opdyke	Arts and Science	Fallon
Ruth M. Oppedyk	Arts and Science	Las Vegas
Carl Orleman	Arts and Science	Atlantic City, N. J.

Harold Overlin	Arts and Science	Reno
Ernest F. Panelli	Arts and Science	Reno
Marion Vivian Parra	Arts and Science	Oakland, Calif.
Robert D. Parra	Arts and Science	Oakland, Calif.
Edward Peck	Arts and Science	Los Angeles
Dorlon Peckham	Arts and Science	Reno
Myrl R. Peters	Mechanical Engineering	Reno
Al Peterson	Arts and Science	Sparks
Edme Peterson	Arts and Science	Carson City
Estelle Petrinovich	Arts and Science	Reno
William H. Pierce	Arts and Science	Reno
Enid Porter	Arts and Science	Reno
Albert Powning	Electrical Engineering	Loyalton, Calif.
Kenneth M. Pratt	Arts and Science	Reno
James Elden Prewett	Arts and Science	Auburn, Calif.
Katherine Priest	Arts and Science	Sparks
Ben J. Raggio	Arts and Science	Reno
William C. Rau	Arts and Science	Las Vegas
Dorothy Record	Arts and Science	Reno
Helen K. Reed	Arts and Science	Reno
Carol M. Reid	Arts and Science	Reno
Louise B. Reil	Normal	Winnemucca
Stanley G. Reinert	Arts and Science	San Francisco
Fay I. Reinhart	Arts and Science	San Francisco
Delbert Rey	Arts and Science	Reno
Emily B. Richards	Arts and Science	Reno
Paul D. Richards	Arts and Science	Millers
E. Farrar Richardson	Arts and Science	Reno
Harry Robinson	Arts and Science	Reno
Frauncis Robison	Arts and Science	Reno
Kathryn M. Robison	Arts and Science	Sparks
Evelyn M. Rogers	Normal	Reno
Justine Rogers	Arts and Science	Fallon
Walter E. Root	Arts and Science	Reno
Herbert E. Rowntree	Arts and Science	Reno
Jess F. Roy	Arts and Science	Reno
Otto H. Rutledge	Arts and Science	Reno
Maizie T. Ryan	Arts and Science	Reno
Frank Sala	Arts and Science	Reno
Harold D. Sanford	Mechanical Engineering	Fallon
William C. Sanford	Arts and Science	Reno
Esther L. Sauer	Arts and Science	Steamboat Springs
Edwin S. Semenza	Arts and Science	Reno

Dan Senseney	Arts and Science	Reno
Arthur A. Settelmeyer	Agriculture	Gardnerville
Paul J. Shea	Arts and Science	Reno
George F. Sheats	Arts and Science	Reno
Florence Shedd	Home Economics	Reno
Mac John Slaughter	Arts and Science	Oklahoma City, Okla.
Lenard W. Sledge	Arts and Science	Eureka
Edith F. Small	Home Economics	Reno
Berton J. Smith	Electrical Engineering	Winnemucca
Beulah E. Smith	Home Economics	Reno
John Smith	Civil Engineering	Oakland, Calif.
Vera C. Sopp	Normal	Round Mountain
Arline M. Springmeyer	Arts and Science	Gardnerville
Edward R. Sronce	Arts and Science	Oakland, Calif.
William J. Stapp	Civil Engineering	Elko
Charlotte Steinmetz	Arts and Science	Reno
William R. Stevens	Arts and Science	Vallejo, Calif.
Frank S. Stewart	Arts and Science	Mare Island, Calif.
Vernon D. Stoker	Mines	Lovelock
Fred A. Stoll	Arts and Science	Martinez, Calif.
Francis A. Sullivan	Arts and Science	Des Moines, Iowa
Madeleine Sullivan	Arts and Science	Reno
Margaret Sullivan	Home Economics	Virginia City
Regina Sullivan	Arts and Science	Virginia City
Arthur T. Sutherland	Arts and Science	Reno
Leonard W. Sutherland	Arts and Science	Reno
Maryemma Taylor	Arts and Science	Gardnerville
Bernice M. Terry	Arts and Science	Reno
Doris Thompson	Home Economics	Reno
John S. Tillay	Electrical Engineering	Yerington
Neal Tranter	Arts and Science	Reno
Evelyn P. Turner	Arts and Science	Reno
George F. Turner	Electrical Engineering	Sattley, Calif.
Grace Uhart	Normal	Carson City
Theodore Van Hoosear	Electrical Engineering	Oakland, Calif.
Ray H. Varney	Arts and Science	Thermopolis, Wy.
True Vencill, Jr.	Arts and Science	Reno
Reno Vogliotti	Arts and Science	Reno
Karl S. Voight	Arts and Science	Lamoille
Guy Wahlund	Electrical Engineering	Elko
Calda Waite	Arts and Science	Portola, Calif.
Kent E. Wallace	Arts and Science	Fallon
Chester C. Warden	Arts and Science	Alhambra, Calif.

Evelyn Warder	Arts and Science	Kimberley
Howard Waymire	Mechanical Engineering	Overton
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William J. Weeden	Arts and Science	Menlo Park, Calif.
Mary E. Weeks	Arts and Science	Wells
Harry M. West	Arts and Science	Reno
Pauline Westover	Arts and Science	Reno
Wallace W. White	Mines	McGill
Edwin Whitehead	Arts and Science	Sparks
Bonnie E. Wilder	Arts and Science	Acampo, Calif.
Mrs. Ada M. Williams	Arts and Science	Sparks
Irene B. Wilson	Arts and Science	Minden
Claude Winder	Arts and Science	Fallon
Naomi M. Wingfield	Arts and Science	Oakland, Calif.
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Linda Wright	Arts and Science	Reno
Sadie Zannini	Normal	Reno

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Fairy F. Adams	Arts and Science	Sparks
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Mrs. A. W. Cahlan	Arts and Science	Reno
Frank G. Cairns	Civil Engineering	Reno
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Madeline Horgan	Arts and Science	Reno
Jean Jackson	Arts and Science	Reno
LaVerna LeMaire	Arts and Science	Reno
Alphonsine Liotard	Arts and Science	Reno
Doris Loyd	Arts and Science	Reno
Willis R. Pressell	Electrical Engineering	Reno
John W. Read	Arts and Science	Reno
Metta Riggs	Arts and Science	Sparks
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Frank W. Samuels	Arts and Science	Reno
Alice Shair	Home Economics	Reno
Genevie Sheetz	Arts and Science	Sparks
Elizabeth Smith	Arts and Science	Reno

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Lyman R. Vawter.....	Arts and Science.....	Reno
Charles A. Whitehead.....	Arts and Science.....	San Francisco
Cornelia A. Williamson.....	Arts and Science.....	Reno
Olive Wolfe.....	Arts and Science.....	Reno
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DIRECTORY

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