UNIVERSITY OF NEVADA BULLETIN

VOL. XIX MAY 1, 1925 No. 3

THE UNIVERSITY OF NEVADA CATALOGUE

1925-1926

With Record for 1924-1925

THIRTY-SEVENTH ANNUAL NUMBER

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1925

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CONTENTS

OFFICE OF THE
BOARD OF REGENTS, UNIVERSITY OF NEVADA
RENO, NEVADA, May 1, 1925

To His Excellency, JAMES G. SCRUGHAM,
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 1924–1925, 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,
Chairman.

CAROLYN M. BECKWITH, *Secretary.*

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MARGARET E. MACK, A.M., Dean of Women.
RAYMOND H. LEACH, A.B., Master of Lincoln Hall.
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.
MRS. S. C. ROBINSON, Matron University Hospital.
MRS. LUCIE MAYER, Matron of Manzanita Hall.

Colleges and Schools—

MAXWELL ADAMS, Ph.D., Dean of the College of Arts and Science.
FREDERICK H. SIBLEY, M.E., Dean of the 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 TERRY, Departmental Stenographer.
MRS. LUCILE BATH, Clerk, Comptroller's Office.
MRS. FREDA METCALF, Clerk, Comptroller's Office.
MRS. C. R. DRESSLER, Assistant to the Registrar.

OFFICERS OF INSTRUCTION[1]

University Faculty[2]

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–.

[3]JAMES EDWARD CHURCH, JR., 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–.

JEANNE ELIZABETH WIER, B.A., LL.D., Professor of History and Political Science.

B Di., 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–.

PETER FRANDSEN, 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–.

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[1]The 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.

[2]The 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.

[3]The order beginning here is seniority.

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., McMinnville 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.

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. TRANER, 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., Associate 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–.

Associate Professors[1]

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, 1918–.

[1]Order of seniority.

SIDNEY WARREN WILCOX[1], B.L., Associate Professor of Economics, Business and Sociology.

B.L., University of California, 1905; B.D., Pacific School of Religion, 1910; Assistant Professor of Economics and Sociology, University of Nevada, January, 1920; Associate Professor of Economics and Sociology, 1921–1925.

FREDERICK L. BIXBY, C.E., Associate 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–.

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. STILWELL, 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–.

ROBERT G. FOSTER, B.S., Associate Professor of Agricultural Extension in the College of Agriculture.

B.S., New Mexico College of Agriculture and Mechanic Arts; County Extension Work, Colfax County, Raton, New Mexico, 1916–1918; State Leader of Boys and Girls Club Work, New Mexico, 1919–1920; Assistant in Boys and Girls Club Work, U. S. Department of Agriculture, Washington, D. C., 1920–1922; Field Agent in Extension Methods, U. S. Department of Agriculture, Washington, D. C., February to August, 1922; Assistant Director of Agricultural Extension and Associate Professor of Agricultural Extension in the College of Agriculture, University of Nevada, 1922–.

FRANCIS CLARK MURGOTTEN, Ph.D., Associate 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–.

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–.

[1]Resigned, effective July 1, 1925.

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 Allegheny 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–.

Assistant Professors[1]

GEORGE HARDMAN, M.S., Assistant Professor of Agronomy and 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–; Assistant Research Professor of Irrigation, 1922–.

JESSIE P. POPE, B.S., Assistant Professor in Home Economics.

B.S., University of Nebraska, 1913; Instructor in Home Economics, University of Nevada, 1918–1920; Assistant Professor in 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–.

M. JULIA DETRAZ[2], M.A., Assistant Professor of Education.

B.A., University of Cincinnati, 1910; M.A., Teachers College, Columbia University, 1918; Elementary Supervisor and Demonstration Teacher, Oswego Normal School, New York, 1915–1917; Demonstration Teacher, Horace Mann School, Teachers College, 1917–1921; Instructor in Education, University of Nevada, 1921–1922; Assistant Professor of Education, 1922–1924.

THOMAS R. KING, B.S., Assistant Professor of Agricultural Extension.

B.S. in C.E., University of Nevada, 1917; Assistant Professor of Agricultural Extension, University of Nevada, 1923–.

CLARENCE H. KENT, B.S., Assistant 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–.

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–.

[1]Order of Seniority.

[2]Resigned, January, 1925.

HARDY LOMAX SHIRLEY[1], B.A., Assistant Professor of Mathematics.

B.A., Indiana University, 1922; Instructor in Mathematics, University of Nevada, 1922–1924; Assistant Professor of Mathematics, 1924–.

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

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–.

ALFRED LESLIE HIGGINBOTHAM, M.A., Assistant 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–.

JOHN EDWARD MARTIE, B.S., Assistant Professor of Physical Education for Men, and Acting Head of Department.

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–.

MRS. LUELLA M. FOSTER, B.S., Assistant Professor in Home Economics.

B.S., Iowa State College, 1919; Nevada State Supervisor of Home Economics, 1923–; Instructor in Home Economics, University of Nevada, 1923–1924; Assistant Professor in Home Economics, 1924–.

RUTH A. BILLINGHURST, M.S., Assistant Professor in Chemistry.

B.A., Ohio Wesleyan University, 1921; M.S., University of Nevada, 1924; Instructor in Chemistry, University of Nevada, 1922–1924; Assistant Professor in Chemistry, 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, 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–; Assistant Professor of Agricultural Extension, University of Nevada, 1924–.

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, 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–.

[1]Resigned to take effect September 1, 1925.

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

B.S., University of Nevada, 1912; Licentiate, Instituto de Barcena, Mexico, 1918; Asoociate Professor of Spanish, University of Redlands, 1920–1921; Instructor in Spanish, University of Nevada, 1924–1925; Assistant Professor of Modern Languages, 1925–.

EDWARD G. SUTHERLAND, A.B., Assistant Professor and Acting Head of Economics, Business and Sociology.

A.B., University of Utah, 1923; Instructor in Economics, Business and Sociology, University of Nevada, 1924–1925; Assistant Professor and Acting Head of Department, 1925–.

ROLLIN HERBERT MCCARTHY, M.E., Assistant Professor in Electrical Engineering.

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

Instructors[1]

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–.

ENOC E. VAUGHAN, First Sergeant, U.S.A., Instructor in Military Science and Tactics.

Assistant in Military Department, 1920–1921; Instructor in Military Science and Tactics, 1921–.

JOHN R. GOTTARDI, B.A., Instructor in Modern Languages.

B.A., University of Nevada, 1921; Instructor in Modern Languages, University of Nevada, 1922–.

HENRY E. HIGGINS, Instructor in Mineralogy.

Instructor in Mineralogy, University of Nevada, 1922–1924.

WINIFRED ESTHER CHAMPLIN, B.S., Instructor of Physical Education for Women.

B.S., University of Washington, 1922; Instructor of Physical Education for Women, University of Nevada, 1923–.

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.

DOROTHY ROSS, B.A., Instructor in English.

B.A., University of Nevada, 1923; Instructor in English, University of Nevada, 1923–1925.

HAROLD P. MILLER, B.A., Instructor in English.

B.A., Northwestern University, 1924; Instructor in English, University of Nevada, 1924–.

PERRY BYERLY, JR., Ph.D., Instructor in Physics.

A.B., University of California, 1921; M.A., *ibid.*, 1922; Ph.D., *ibid.*, 1924; Instructor in Physics, University of Nevada, 1924–1925.

[1]Order of Seniority.

[2]Absent on leave, 1925–1927.

CHARLES FREEMAN ERB, JR., A.B., Instructor in Physical Education for Men and Football Coach.

A.B., University of California, 1923; Instructor in Physical Education for Men and Football Coach, University of Nevada, 1924–1925.

BENJAMIN ATWOOD FISHER, B.S., Instructor in Electrical Engineering.

B.S., University of Missouri, 1924; Instructor in Electrical Engineering, University of Nevada, 1924–1925.

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–.

JO EVELYN HODGES, B.S., Instructor in Education.

Washington State Normal School Diploma, 1912; Public Schools of Washington, 1912–1922; B.S., Columbia University, 1923; Seattle Public Schools, 1923–1924; Instructor in Education on leave from Seattle Schools, University of Nevada, Spring Semester of 1925.

CHARLES LOUIS SEARCY, A.M., Instructor in Mathematics.

B.C.E., Purdue University, 1891; C.E., *ibid.*, 1892; A.M., University of California, 1923; Instructor in Mathematics, University of Nevada, 1925–.

ELMER PENDELL, M.A., Instructor in Economics, Business and Sociology.

LL.B., George Washington University, 1917; B.S., University of Oregon, 1921; M.A., University of Chicago, 1923; Instructor in Economics, Cornell University, 1923–1925; Instructor in Economics, Business and Sociology, University of Nevada, 1925–.

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

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

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

B.A., University of Nevada, 1924; Instructor in English, University of Nevada, 1925–.

DOROTHY CRANDALL, Instructor in Music.

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

SIGMUND W. LEIFSON, B.S., Instructor in Physics.

B.S., North Dakota State Agricultural College, 1922; Teaching Fellow in Physics, University of California, 1922–1925; Instructor in Physics, University of Nevada, 1925–.

Lecturers

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–.

F. DEAN BRADLEY, M.E., Lecturer in Education.

B.S. in Mines, University of Nevada, 1905; M.E., *ibid.*, 1920; Lecturer in Vocational Education, University of Nevada, 1924–1925.

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, HAROLD P. MILLER.

Athletics—
R. C. THOMPSON, MISS SAMETH, J. E. MARTIE.

Campus Employment—
MISS MACK, R. H. LEACH, J. B. LYNCH.

Faculty Community Chest—
C. HASEMAN, F. L. BIXBY, MRS. HAMMOND.

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

Health—
P. FRANDSEN, H. ALBERT, S. C. DINSMORE.

High-School Relationships—
F. W. TRANER, C. R. HICKS, 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 MACK, MISS SISSA.

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

Scholarships and Prizes—
L. W. HARTMAN, 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, E. G. SUTHERLAND, A. L. HIGGINBOTHAM.

Chief Marshal of Formal Assemblies—
J. E. CHURCH, JR.

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 28. 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 Agricultural Experiment Station was organized, President Brown acting as Director. By an Act of Congress passed March 2, 1887, 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 Mining Laboratory was organized.

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—Congress, under an Act dated March 16, 1906, provided for an additional appropriation for the support of the Agricultural Experiment Station, limiting the money's use to the necessary expenses of original research and experimental work in agriculture. This grant now 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.

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.

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.

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 promotion 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, with John William Hall as Dean.

1920 — The Rare and Precious Metals Federal Mining Experiment Station was assigned to the University July 8, 1920, with Dr. Samuel C. Lind as Superintendent.

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 with Horace P. Boardman as Director.

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, increasing the income of the University's Agricultural Experiment Station to $50,000 for the year beginning July, 1925, and further increasing this income $10,000 per year thereafter until the annual income will be $90,000.

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 1925 this Session is scheduled from June 15 to July 24, 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. There are also short courses in butter-making, cheese-making, and city milk supply, varying with the requests of the majority of applicants.

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.

Through the College of Agriculture the University provides a bureau of general information and welfare from which any one in the State or any one desiring to settle

within its borders may receive full information concerning the opportunities in the State for farming, stock-raising, etc., together with a statement of farm practices which have been successful.

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 MINING LABORATORY

The State Mining 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.

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 following are the standing committees of the Faculty:

1. Admission and Advanced Standing.
2. Registration and Scholarship.
3. Schedules.
4. Athletics.
5. Library.
6. Scholarships and Prizes.
7. Student Affairs.
8. High-School Relationships.
9. Assemblies and Lecturers.
10. Health.
11. Graduate Committee.
12. Vocational Guidance.
13. Faculty Community Chest.

[1] Exceptions 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.

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 1925, 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. Music and the drama are encouraged by strong local organizations. 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. The first floor includes a kitchen, a mess hall, a dormitory and five offices and storerooms. The second floor is wholly a dormitory floor. This building was erected in September, 1918, for the use of the Vocational Section of the Students' Army Training Corps. (1918)

Since January, 1919, this building has been furnishing overflow quarters for various University divisions and departments, particularly for the Military Department.

The small building north of the Barracks, used as a barracks lavatory until January, 1919, was remodeled as quarters for the Federal Radio Station. (1920)

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

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

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 conveniently equipped dining-hall for the accommodation of two hundred 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 instructions 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 is set aside almost wholly for the use of the Experiment Station. The first floor is occupied by the Department of Veterinary Science and State Veterinary Control Service. The second floor is occupied by the library and the office of the Station Director and by the

Departments of Entomology and Range Management. (1891; annex 1909)

HEATING PLANT—A central heating plant supplies most of the buildings on the Campus. It consists of two large boilers, pumps, engines, motors, etc., and is operated in connection with the mechanical-engineering laboratories. (1908)

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)

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. The main portion of the building has two stories and there are two single-story wings in the rear, between which a library and a court are situated. Upon the first floor are the mining lecture-room, drafting-room, and office, the museum, the mining library, the mining and metallurgical laboratory, the assay laboratory, the chemical laboratory, the weighing-room, and the parting-room. Upon the second floor are the geological lecture-room, drafting-room, and office; the petrographic laboratory, the mineralogical laboratory, the research laboratory, and the office of the Department of Metallurgy. (1908)

MANZANITA HALL—Manzanita Hall, which is the women's hall of residence, 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. All of the rooms have outside exposure. There is a large sleeping-porch on the side of the building overlooking the lake, and those who desire to sleep out of doors will do well to state this in their applications that they may be assigned rooms, conveniently located for this purpose. A covered passageway connects the hall with the dining-hall. (1896; annex 1909)

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 and for storage. The office of the Superintendent of Buildings and Grounds is in the basement of this building. (1886)

PHYSICS BUILDING—The Physics Building, is a two-story brick building. On the first floor are the balance-room, the darkrooms, 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.

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.

LIBRARIES

GENERAL LIBRARY

The University Library contains 42,000 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, text-books, 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. 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, and of the State Library, which is located at Carson City. The State Library has a printed catalogue of its miscellaneous department, a copy of which is furnished to borrowers.

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 iceroom, a darkroom, 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, paraffine 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. 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 darkroom 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 Riehlé general testing machine, electrically operated, equipped for testing materials in tension, compression, bending and shear.

A 100,000-lb. capacity Riehlé 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.

All of this equipment is housed in the Electrical Building.

Electrical—The Electrical Laboratory contains equipment for making practically all of the experiments usually included in undergraduate courses in electrical engineering. By frequent additions and replacements, the equipment has been kept up to date and machines of practically 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 7-kva. alternating-current generator and driving motor.

Two identical 7-kw. direct-connected motor generators.

A 10-kw. rotary converter of special laboratory type.

Two special testing transformers, for rotary converter.

A 20-kw. three-wire direct-current generator with induction motor.

A seven-panel slate switchboard complete with meters, control rheostats, automatic voltage regulator and synchronism indicator.

A three-section slate transfer switchboard.

A two-panel 4000-volt switchboard with instrument transformers and oil circuit breaker.

In addition to these are fourteen smaller units covering motors, generators and transformers of practically every type. Complete controlling apparatus is mounted with each machine.

A radio laboratory containing three radio receiving sets of different types, a 500-cycle alternator, transformer and

other accessory apparatus for study and experimental work on radio circuits is also available.

Mechanical—The equipment of the Mechanical Laboratory for steam and gas engineering consists largely of typical engines, so arranged as to be run independently of one another, each provided with its individual variable load and complete apparatus for testing.

The principal units for steam testing consist of the following:

A 100-hp. Babcock and Wilcox boiler, oil fired and provided with complete boiler-room accessories.

A 12x24 Alliss-Corliss engine, belted to a 65-kw. 200-volt alternator.

A 10x10 Buffalo Forge Co. high-speed automatic engine equipped with an Alden dynamometer.

A 5x5 vertical slide-valve engine.

A 7-kw. General Electric turbo-generator outfit.

A 6-hp. De Laval turbine geared to a centrifugal pump.

Two headlight turbo-generator outfits arranged for comparative tests.

A Wheeler surface condenser, arranged to measure the steam consumption of any unit.

The principal units for gas-engine testing are the following:

A 30-hp. three-cylinder vertical Standard gas engine belted to a 17-kw. direct-current generator.

A 10-hp. Fairbanks-Morse oil engine belted to a 10-kw. direct-current generator.

A 6-hp. Fairbanks-Morse gas engine provided with friction brake.

A 6-hp. Semi-Diesel Swedish oil engine.

A 40-hp. Willys-Knight automobile engine.

A 4-hp. horizontal gas engine belted to a centrifugal pump.

The laboratory contains instruments for measuring and recording pressure, temperature and flow of stream, thermometers, pyrometers, steam and gas calorimeters, and steam- and gas-engine indicators, with suitable apparatus for their calibration. The laboratory is equipped to make tests on lubricating oils and for fractional distillation of crude oils.

MINING SCHOOL LABORATORIES

Assay—Preparation of crucible charges and all furnace work is done in the Assay Laboratory in the Mackay Building. This laboratory is fully equipped with six Thompson pulp scales, three double-muffle soft-coal furnaces, a large oil

fusion furnace, four small oil-fired muffles, two coke muffle furnaces, and one coke fusion furnace. Crude oil and distillate are used for the oil furnaces, compressed air being used to spray the oil. The laboratory will accommodate twenty students. A Case combination gas and oil three-muffle furnace has been added to this laboratory by the State Mining Laboratory.

Connected with both the Chemical Laboratory and the parting-room is the weighing-room. Substantial piers carry the balances. 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, the Ainsworth, the Keller, the Oertling, and the Staudinger. An Ainsworth chemical balance and a Thompson multiple-rider button balance belonging to the State Ore Sampler are also installed in this laboratory.

The cleaning of beads, parting, and annealing are provided for in a parting-room convenient to the weighing-room and the Assay Laboratory. The room is equipped with cement tables, a hood, and a set of bullion rolls.

Chemical—The Chemical Laboratory of the School of Mines is fully equipped with the usual desks, hoods, hot-plates, and air-baths. Each desk is provided with gas, electricity, and compressed air. Steam connections for still and drying-coils are provided. Electric air-baths and drying pans are provided for overnight work. A small electric-driven five-jar Abbe mill is used for the fine grinding tests. 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 the parting-room and from this laboratory. A complete electrolytic outfit for lead, copper, and other determinations has been installed. This laboratory will accommodate sixteen students.

Metallurgical—The Metallurgical Laboratory equipment includes the following machines: a three-stamp battery and feeder, amalgamating plates, a four-foot Union concentrator, a Wilfley concentrating table, a two-compartment jig, classifiers and sizing cones, a 4x8 Sturtevant ore crusher, a pair of 10x12 crushing rolls, a 2x6 Columbian shaking screen, a one-ton cyanide plant, a 3x8 roasting furnace, an 18-inch amalgamating pan, a 150-pound tube mill, a small Pachuca

agitator, a filter press and montejus, an automatic sampler, a crusher, a sample grinder, and a miniature concentrating testing plant consisting of ore feeder, hydraulic classifier, Wilfley table, two-compartment jig, and settling tanks, all mounted on a single table, a laboratory-size Deister slimer, and Janney, Ruth, and Callow flotation machines.

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.

Metallographic—The Metallographic Laboratory equipment includes a Sauveur & Boylston polishing machine, apparatus for hand polishing, a large Leitz metallurgical microscope with photomicrographic camera, and a set of prepared specimens of the common and ferro alloys.

Mining—The Mining Laboratory is equipped with an 8½x9-in. Laidlaw feather-valve compressor operated by a 25-hp. electric motor. The rock drills in the laboratory include an Ingersoll-Sergeant piston drill, a Jackhammer drill, Waugh and Butterfly stopers, and Cochise piston, and hammer drills. A Tool-O-Meter, Clark air-meter, and Obertop drill-tester are provided for testing these drills. The laboratory also contains hand and machine drill steels, an electric blasting machine and tester, mine lamps, mine shovels, hygrometers, and anemometers.

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; a flour mill and oven for making gluten and baking tests of wheat flour; 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.

Irrigation—This laboratory is fully equipped with apparatus for the thorough and practical demonstration of the principles of irrigation and for experimental work in connection with the courses offered to agricultural students. The laboratory equipment consists of water-measuring devices; model pumping plant with weir tank; models showing different methods of preparing land for irrigation of various crops; models showing methods of draining lands under different conditions; drain tiles and tools for placing same; irrigation appliances for use in distribution of pumped water; and field instruments for measuring water and surveying land. The Irrigation Division has drafting-room facilities for the drawing and mapping of field work and for the computation of data secured in connection with the prescribed courses.

Seed—The Seed Laboratory, included as a part of the Farm Crops Laboratory, is under the direction of the head of the Department of Agronomy. Here farmers and dealers may have samples tested as to vitality and purity; a report showing percentage value of seed is mailed free to the senders of the samples. The laboratory contains a large electric germinator, a set of seed-grading tables, and a large seed-display cabinet.

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 con-

tains 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. A few special exhibits of food products are shown in cases in the Cooking Laboratory.

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 map of the State on a still larger scale. 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 examples of fossil footprints and fossil trees; 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; the Maxson collection of 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, 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.

AGRICULTURAL MUSEUM

The Agricultural Museum is in the southwest room on the first floor of the Agricultural Building. It includes an educational display of the most important farm crops and agricultural products of Nevada. A portion of the biological collections, including economic insect life-histories and mounts of economic birds and mammals, is arranged here for public exhibition.

BIOLOGICAL COLLECTIONS

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 lupines, 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 of the lectures given in 1924–1925:

COMMENCEMENT, 1924

May 25—Baccalaureate Sermon, "The Wingless Victory," Reverend C. C. Wilson, Pastor of the First Congregational Church of Ogden.

May 27—Phi Kappa Phi Address, Dr. Tully C. Knoles, President of the University of the Pacific.

May 28—Commencement Address, "Bread, Beauty and Brotherhood," Dr. Tully C. Knoles, President of the University of the Pacific.

ASSEMBLY ADDRESSES

August 24—Convocation Address, President Walter E. Clark.

September 19—Constitution Day Address, Charles Roger Hicks of the University Department of History and Political Science.

September 24—"Obligations of Citizenship," Honorable William Jennings Bryan.

October 1—Illustrated Travelogs on Alaska, Edgar C. Raine.

October 17—Illustrated Lecture on Oxford University, Walter C. Jepson, Rhodes Scholar, 1914.

November 12—Illustrated Lecture on Nevada, Governor James G. Scrugham.

November 14—"The Modern Hercules," Carl C. Countryman.

November 24—"Sectioning on the Basis of Ability," Dean C. E. Seashore, National Research Council.

1925

January 8—"Ancient India," Professor R. K. Kulkarni, of Gwalior, India.

January 9—"China," Miss Maude Russell, under auspices of Y. W. C. A., and Cosmopolitan Club.

February 12—Lincoln Day Address, James W. West, National Executive of the Boy Scouts.

"AFTER COLLEGE WHAT?" SERIES UNDER AUSPICES OF COMMITTEE ON VOCATIONAL EDUCATION:

January 30—"The College Man in Business," Colonel Charles H. Moore.

April 3—"Social Service," Reverend Brewster Adams; "The Law," District Attorney Lester D. Summerfield.

February 24—"The Grand Canyon of the Colorado," Illustrated. Dr. W. M. Davis, Professor Emeritus of Geology, Harvard University.

THE ROBERT LARDIN FULTON LECTURE FOUNDATION SERIES:

April 6—"The Electron."

April 7—"Light Waves."

April 8—"Stripping the Atom."
Dr. Robert A. Millikan, Director of the Norman Bridge Laboratory, California Institute of Technology, Pasadena, Calif.

April 16—"Shakespeare and Old London," Illustrated.

April 17—"Forty Years of Publishing."
Mr. William W. Ellsworth of The Century Company.

FACULTY SCIENCE CLUB, 1924–1925

1924

October 9—"Scientific Methods for Securing Accurate Grading," Professor F. W. Traner.

October 23—"Infantile Paralysis," Dr. Henry Albert.

November 6—"The Age of the Earth," Charles W. Davis.

December 4—"Public Opinion and the Newspaper," A. L. Higginbotham.

December 11—"Public School Progress in America," Superintendent B. D. Billinghurst.

1925

January 22—"Earthquakes and the Structure of the Earth," Dr. Perry Byerly, Jr.

February 26—"The Diamond Mines of Africa," Director John A. Fulton.

March 12—"Artificial Propagation of Life," Dr. Peter Frandsen.

March 26—"The Progress and Policies of the University of Nevada," President Walter E. Clark.

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 1924–1925

President.....EDWARD C. REED,'21
Vice-President.....HAROLD HUGHES,'24
Secretary.....LOUISE BLUM LEWERS,'95

EXECUTIVE COMMITTEE

ROBERT FARRAR,'14 PHILIP FRANK,'21

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 safe-guarding 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 service 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 SOCIETY

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.

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 view-point and increase the knowledge of the students, as well as to extend their acquaintance among practicing engineers.

The Agricultural Association—This organization includes members of the three agricultural divisions of the University of Nevada. The purpose of the association is to keep its members in touch with current agricultural development in the State and country. Meetings are held the first Tuesday night of each month in the Agricultural Building. Short talks are given by the members and by agriculturists who visit the University. The meetings are informal and are open to all members of the University and the public.

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 underclassmen 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 upperclass 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 Debating Society—Membership in Clionia, 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 are 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 Espilon (1917), Phi Sigma Kappa (1917), Alpha Tau Omega (1921), Sigma Phi Sigma (1922), Delta Sigma Lambda (1922); local—Kappa Lambda (1921), Phi Gamma (1922). 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.

Athenades—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.

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 instructions 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.

DEBATE AND ORATION

The University engages yearly in several intercollegiate debates. Teams for these debates are chosen each year by a series of preliminary contests to which all of the students of the University are eligible. Beginning with 1921 a gold fob has been presented to every speaker who represents the University either in oratory or debate in an intercollegiate contest.

EXTEMPORANEOUS SPEECH CONTEST

(Established, 1925)

Commencing in the Spring semester of 1925 the Caucus Debating Society will award a cash prize of ten dollars in gold to that student of the University adjudged to have made the best speech on a subject of national or world interest, chosen by lot on the evening set for the contest, and chosen from a list of subjects duly announced by the Caucus some time in advance of the contest date.

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 auspiciously initiated in April, 1925, by a series of three lectures on Electrons, Light Waves, and Atoms, given by Dr. Robert A. Millikan, world-famous physicist.

SCHOLARSHIPS AND FELLOWSHIPS

For 1925–1926 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 not be payable until October 1 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 HOME ECONOMICS SCHOLARSHIP

(Established, 1921)

A yearly scholarship in Home Economics of the value of $100 is offered by Professor Sarah L. Lewis, Head of the School of Home Economics. The faculty of the School of Home Economics, including the Dean of Agriculture, assisted by the Head of the Department of Physical Education for Women, shall choose the winner of the scholarship. If, in any year, no student meets the standards required by the School of Home Economics, the scholarship will not be given.

The award will be made on the following points:

Qualities of leadership.
Appropriate dress.
Application of laws of nutrition and hygiene.
Scholarship.

The scholarship sum is payable on October 1 following the Commencement announcement to the winning student if that student is then enrolled for another year's work in the School of Home Economics.

6. 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. Under the same conditions as above, this scholarship is

renewed to be awarded to a man student at Commencement, 1922.

7. RENO LODGE OF ELKS SCHOLARSHIPS

(Established, 1920)

Reno Lodge No. 597, Benevolent and Protective Order of Elks, has established four scholarships. These are annual scholarships of the value of $300 each. They are to be awarded by the Scholarship Committee of this lodge to four students of the University selected from a list of ten students nominated by a University Committee consisting of the President of the University, the Physical Director for Men, and the Master of Lincoln Hall. This University Committee, annually, between April 1 and April 15, is to nominate ten students who satisfy the following requirements:

1. They shall be of excellent character.
2. They shall be leaders among their fellows.
3. They shall be active participants in the athletics of the University.
4. They shall have satisfied the University requirements for an athlete in good scholarship standing.
5. They shall be citizens of the United States and 100% Americans.

From the ten students nominated the Elks Scholarship Committee will choose four to receive the scholarships for the coming year in time for their names to be announced at the University Commencement.

To each of the four students selected the Elks Lodge will pay $150 on the 15th of the following September and the remaining $150 on the 15th of the following January.

The Elks Scholarship Committee reserves right to countermand payment of any scholarship awarded by it for any semester covered by such scholarship in case that:

1. The chosen scholar is not duly registered at the University for the semester.
2. The chosen scholar has failed within two weeks of the beginning of the semester concerned to have satisfied the scholarship standard so that he is in good scholarship standing as an athlete for that semester.
3. Other conditions relative to the chosen scholar have so changed that in the judgment of the Committee the award should be countermanded.

In event that any scholarship is countermanded, the Elks Committee will instruct the Comptroller of the University to pay the countermanded part of that scholarship to some alternate whom the Committee will name.

8. RENO LODGE OF ELKS MEMBERSHIP SCHOLARSHIPS

(Established, 1920)

Reno Lodge No. 597, Benevolent and Protective Order of Elks, Reno, Nevada, grants yearly, beginning with the year 1920, membership in its lodge, with remission of all lodge fees and dues until graduation, to four selected students of this University. A committee of three from the University staff, appointed by the President of the University, is to make nominations to the Elks lodge of the worthiest Juniors and Seniors. In selecting the nominees, the committee is to apply the following standard:

Each nominee must be a man—

1. Whose scholarship is high.
2. Whose character is excellent.
3. Who is a leader among his fellows.
4. Who is a citizen of the United States and a 100% American.

9. THE ROSE SIGLER MATHEWS SCHLLARSHIP 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. Mathews's further recommendation, continued to his nominees, provided they make good scholarship records.

10. 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 University 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.

11. 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, a 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.

12. 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, by the University Scholarship Committee 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 by the Committee and duly enrolled for the work of the Sophomore year in the University of Nevada.

13. THE AZRO E. CHENEY SCHOLARSHIPS

(Established, 1922)

The Honorable Azro E. Cheney bequeathed to the University of Nevada five thousand dollars 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 on the 1st of October 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.

14. 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 Advanced 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.

15. 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.

These scholarships are to be awarded at each February, beginning with the February of 1924, one to a man student, the other to a woman student, by the University Scholarship Committee 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 1st day of February 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 by the Committee and duly enrolled for the work of the second semester of the Freshman year at the University of Nevada.

16. WOMEN'S ATHLETIC ASSOCIATION SCHOLARSHIP

(Established, 1923)

This scholarship, of $100 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.

17. 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.

18. 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.

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 1922, 1923, 1925, and so on, omitting every third year. The scholarships are each of the value of approximately $1,500 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. CLAIR,[1] Deeth, Nevada.
1908—WILLIAM SCOTT UNSWORTH, Reno, Nevada.
1910—STANLEY MAYHEW WILTON,[2] Goldfield, Nevada.
1911—CEDRIC HARDING BEEBE, Reno, Nevada.
1913—FLOYD SHERMAN BRYANT, Sparks, Nevada.
1914—WALTER CLARENCE JEPSON, Verdi, Nevada.
1917—THOMAS HENRY EDSALL,[3] 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,[4] Reno, Nevada.
1923—PAUL A. HARWOOD, 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

[1]Died February 20, 1920.
[2]Withdrew before completion of work.
[3]Died January 2, 1918.
[4]Died January 8, 1923.

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

(Established, 1925)

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 annual 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, 1925, to June 30, 1926, 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 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, 1925.
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.

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 Loyalton, 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 88 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*, begining 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 this 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 Hall—Manzanita Hall is the campus residence for women students. It is a well-ventilated, -heated and -lighted dormitory brick building, with all modern conveniences and comfortably furnished. It can accommodate, at present, ninety-two residents.

Dean of Women Margaret E. Mack and Matron Mrs. Lucie Mayer live in Manzanita Hall and have supervision over it and over the University Dining-Hall.

Unless women students have applied for residence in Manzanita Hall in excess of the number which can be accommodated, all unmarried women students who are not residents of Reno or Sparks are required to live in Manzanita Hall. Exceptions to this rule may be granted by the

Dean of Women. 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 the dormitory are expected to select accommodations in one of the boarding houses 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 Manzanita Hall 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 $30, for the second semester $31.50. 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 cancelation 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.

All residents of Manzanita Hall 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.

Manzanita Hall will open Saturday, August 22, 1925, to receive student residents for the University year 1925–1926.

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. Professor 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, 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 Professor 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 Professor 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 $34, and for the second semester, $36. 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 Professor Leach. If cancelation 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 22, 1925, to receive residents for the University year 1925–1926.

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. All 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.
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.*
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, 62	3.00
Agronomy 4, 53	2.00
Agronomy 57, 62	3.00
Agronomy 62	3.00
Agronomy 71	1.00
Agronomy 73	2.00
Animal Husbandry 4, 56	3.00
Associated Students Fee (First semester)	6.60
Associated Students Fee (Second semester)	10.60

	Fees
Bacteriology 51	$2.00
Botany 1, 2, 53	1.00
Botany 56, 64, 71	2.00
Botany 91, 92–93 (fee and deposit per credit-hour)	1.00
Chemistry 9, 10, 23	9.00
Chemistry 5, 81–82, 102	3.00
Chemistry 1, 6, 26, 51–52, 61, 72, 100	6.00
Chemistry 63–64, 200 (fee per credit-hour)	3.00
Civil Engineering 52, 54, 60, 64	3.00
Civil Engineering 58	5.00
[1]Civil Engineering 58 (Transportation)	15.00
Civil Engineering 72	2.50
Civil Engineering 90	1.00
Dairy Husbandry 1, 53, 54, 56	3.00
Dairy Husbandry 55	2.00
Deposit, General	10.00
Deposit, Military	10.00
[2]Diploma (Degree or Certificate)	5.00
Electrical Engineering 60	2.50
Electrical Engineering 61–62, 63–64, 67–68	2.50
Electrical Engineering 80	5.00
[3]History Syllabus	25c to 1.00
Home Economics 31–32, 55, 83–84, 85	5.00
Home Economics 34	.50
Home Economics 9, 15, 16, 18, 45, 49, 50, 65–66, 95	2.00
Home Economics 88, 53	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
Mechanic Arts 1, 2, 3, 4, 5, 6	4.00 per credit
Mechanical Engineering 64	2.50
Mechanical Engineering 65, 66	5.00
Metallurgy 51	15.00
Metallurgy 52	5.00
Metallurgy 56	1.00
Metallurgy 65	5.00
Metallurgy 70	10.00
Metallurgy 80, 180 (deposit according to work).	
Mineralogy 1	2.00
Mineralogy 2	3.00
Music 41–42	16.00
Nature Study 1–2	1.00
Physical Education (locker)	.50
Physical Education (laundry)	1.00
Physics 1b–2b, 5–6, 19–20, 55–56, 57–58, 63	3.00

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

[2]If 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.

[3]According to work being done.

	Fees
Poultry 2, 4	$2.00
Tuition to Non-Nevadans	75.00
Zoology 2, 9, 51	2.00
Zoology 53, 63–64, 66, 91, 92	1.00

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 TRAVELING[1]

	Low	*Moderate*	*Liberal*
[2]Tuition	None	None	None
Board, 8½ months	$215.00	$225.00	$325.00
Room	70.00	70.00	108.00
[3]Laundry	25.00	35.00	50.00
Books and stationery	30.00	35.00	45.00
Fees (laboratory, athletic, medical, etc.)	30.00	35.00	50.00
[4]Totals	$370.00	$400.00	$578.00

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

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

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

[4]These amounts do not include the deposit of $10 required of all students at the beginning of each semester nor the required military deposit, 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. Examinations will be required of all students who do not present acceptable credentials.

SCHOLARSHIP REQUIREMENTS FOR NON-NEVADANS

Applicants for admission to first-year standing in the University of Nevada from States of the Union other than Nevada must have for the University year beginning August, 1925, a grade above 3[1] in at least eight of all entrance credits accepted; and for the year beginning August, 1926, must have a grade above 3 in at least ten of their fifteen acceptable high-school units. Not more than one-half of the eight or the ten higher grade units may be offered in vocational subjects. *No new students from outside Nevada will be received as either "Specials" or "Limited Freshmen"* beginning with August, 1925.

SCHOLARSHIP REQUIREMENTS FOR NEVADA APPLICANTS

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

[1]Grades 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.

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 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 fulfil, 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[1] 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.

[1]Students from Nevada presenting 14 or 13 accredited units may be admitted as "limited Freshmen." New non-residents 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. [1]*Elective*		6 units
	Total	15 units

[2]To the College of Agriculture

SCHOOL OF AGRICULTURE

I. *Required:*	English	3 units
	History	1 unit
	[2]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

Students intending to enter the Home Economics Department will find the requirements more easily fulfilled if they will present one year of Chemistry and one year of French toward entrance requirements.

SUBJECTS ACCREDITED FOR ADMISSION

Subject	*Units*
1. English (a)	1
English (b)	1
English (c)	1
English (d)	1

[1]The electives may be chosen from recognized high-school subjects, but in no case may more than 5 units be elected in subjects 18 to 30, 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.

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

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

[1]A 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.

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 University of Nevada from States of the Union other than Nevada must have for the university year beginning August 24, 1925, a grade above 3[1] in at least 8 of all entrance credits accepted, and for the year beginning August, 1926, must have a grade above 3[1] in at least 10 of their 15 acceptable high-school units. Not more than one-half of the 8 or the 10 higher grade units may be offered in vocational subjects.

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

[1]Grades 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.

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 Students[1]

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 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.

[1]Beginning with August, 1925, no new special students from outside Nevada will be received.

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" student[1] 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.

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.

[1]This classification for new students applies only to students registering from Nevada after August, 1925.

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 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.

V. Absences

1. The business of a student is at the University and the regulations regarding absences should be lived up to cheerfully. Each student is expected to be present at every college exercise for which he is registered.

2. For each total of 17 absences during a semester, or for a total of 26 absences during both semesters, the student will receive one negative credit. For a total of 34 absences during both semesters he will receive two negative credits, and an additional negative credit for each additional 17 absences.

3. In cases of illness (accompanied by a physician's certificate), quarantine, or absence due to serious illness or death of a member of the family, the Registration Committee may exempt students from operation of this rule.

4. Absence incurred by reason of University activities may be excused in advance by the Registration Committee.

5. Each instructor shall be required to report weekly to the Registrar's office all absences incurred in his classes during the week, or that no absences have been incurred.

6. Absences incurred immediately preceding or following a University holiday will count double toward negative credits unless excuse is accompanied by a physician's certificate, in which case they will count singly.

7. Juniors and Seniors are exempt from the above rules.

VI. Hours of Registration

1. In addition to 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 is a 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 semester[1] 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 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 transfers[2], 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.

VII. Withdrawals

1. A student who wishes to withdraw from any course shall first secure from the Registrar a withdrawal slip. He

[1] *Previous 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.

[2] See page 114 for Arts and Science requirement.

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.

VIII. Transfer of Students to One College from Another

1. When a student transfers from one college 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.

IX. 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, will accompany the letter.

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%	
4	equals 60% to 69%	(condition)
5[1]	equals Below 60%	(failure)

2. In order to carry extra work during any semester, a student shall receive above 3 in three-fourths of all of his work in the preceding semester, and shall have no grades in

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

Sections 4 and 5. Exceptions are made to this rule in the case of Seniors:

(1) A Senior, who, during the previous semester, carried the allowed extra three 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 the rule, may be allowed to register, each semester, in one or two hours above the three extra 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.

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

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

5. 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 the College of Arts and Science 128 credits are required for graduation.

In the College of Agriculture 130 credits must be presented, except in the School of Home Economics, where only 128 credits are required.

In the College of Engineering 152 credits are required for graduation. In the State Normal School a candidate must complete the course of study as laid down.

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. 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 9x11¼ 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

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., Ph.D., Professor of the Classics.
JEANNE ELIZABETH WIER, A.B., LL.B., Professor of History and Political Science.
PETER FRANDSEN, A.M., LL.B., 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, 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. TRANER, M.A., Professor of Education.
PHILIP A. LEHENBAUER, Ph.D., Professor of Biology.
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.
FRANCIS CLARK MURGOTTEN, Ph.D., Associate Professor of Modern Languages.
WILLIAM M. HOSKINS, Ph.D., Associate Professor of Chemistry.
JESSIE P. POPE, B.S., Assistant Professor of Home Economics.
Mrs. LOUISE KERR HAMMOND, B.S., Assistant Professor in Home Economics.
RAYMOND H. LEACH, A.B., Assistant Professor in History and Political Science.
ALFRED LESLIE HIGGINBOTHAM, M.A., Assistant Professor in English.
JOHN EDWARD MARTIE, B.S., Assistant Professor of Physical Education for Men.
LUELLA M. FOSTER, B.S., Assistant Professor of Home Economics.
RUTH ANNA BILLINGHURST, M.S., Assistant Professor in Chemistry.
Captain LUTHER N. JOHNSON, Assistant Professor in Military Science and Tactics.
CHARLES ROGER HICKS, A.M., Assistant Professor in History and Political Science.

EDWARD G. SUTHERLAND, A.B., Assistant Professor of Economics, Business, and Sociology, and Head of Department.
EDWIN EUGENE WILLIAMS, B.S., Assistant Professor of Modern Languages.
CHARLES LEROY BROWN, A.M., Instructor in Biology.
ENOC E. VAUGHAN, Instructor in Military Science and Tactics.
JOHN R. GOTTARDI, B.A., Instructor in Modern Languages.
WINIFRED ESTHER CHAMPLIN, B.S., Instructor in Physical Education for Women.
HAROLD P. MILLER, B.A., Instructor in English.
LAWRENCE T. SHAW, B.S.A., Instructor in Physical Education for men.
CHARLES L. SEARCY, A.M., Instructor in Mathematics.
ELMER PENDELL, M.A., Instructor in Economics, Business and Sociology.
WILLIAM R. BLACKLER, B.A., Instructor in Economics, Business and Sociology.
LUETHEL AUSTIN, B.A., Instructor in English.
SIGMUND W. LEIFSON, B.S., Instructor in Physics.
B. D. BILLINGHURST, B.S., LL.B., Lecturer in Education.

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 91–94.

REQUIREMENTS FOR A BACCALAUREATE DEGREE IN ARTS AND SCIENCE

In order to be recommended for the Degree of Bachelor of Arts[1] a candidate must, first, have satisfied the requirements for admission; and, second, have gained credits in prescribed and elective courses aggregating 128 semester units. These units are to be distributed as follows:

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 Mathematics	3 or 4	Physics, Chemistry, Biology, or Mathematics	3 or 4
Hygiene	1	Hygiene 1	1
Military and Physical Education	1–2	Military and Physical Education	1–2
Elective	0–2	Elective	0–2

[1]Students who have majored in Mathematics or Science may, on petition to the Faculty, be granted the Degree of Bachelor of Science.

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	½ to 2½	Military and Physical Education	½ to 2½
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 year.

The Sophomore requirement in Social Science may be satisfied by six units chosen from the departments of Economics, Philosophy, or Psychology.[1]

No subject with the number 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.

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

[1]This change in the Social Science requirement applied to the class entering college August, 1924.

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

Freshman Year

First Semester	Units	Second Semester	Units
Chemistry 5	4	Chemistry 6	4
English 1	3	English 2	3
History 1	3	History 2	3
Mathematics 11	2	German 2	3
German 1	3	Hygiene 2	1
Hygiene 1	1	Elective	2
	16		16

Sophomore Year

First Semester	Units	Second Semester	Units
Chemistry 9	3	Chemistry 10	3
Mathematics 13	3	Mathematics 14	3
Physics 1a	3	Physics 2a	3
Physics 1b	1	Physics 2b	1
English 41	2	English 42	2
German 3	2	German 4	2
Bus. Adm. 41 or Economics 1	3	Bus. Adm. 42 or Economics 2	3
	17		17

Junior Year

First Semester	Units	Second Semester	Units
Chemistry 51	4	Chemistry 52	4
Chemistry 61	3	Chemistry 72	2
Mathematics 25	5	Mathematics 26	3
Physics 55	2	Physics 56	2
Chemistry 95	0	Chemistry 96	1
Elective	2	Elective	4
	16		16

Senior Year

First Semester	Units	Second Semester	Units
Chemistry 81	3	Chemistry 82	3
Chemistry 63	2	Chemistry 100	2
Psychology 61	2	Chemistry 92	2
Chemistry 95	0	Chemistry 96	1
Elective	8	Elective	7
	15		15

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

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	Units	Second Semester	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
Hygiene 1	1	Military and Physical Education	1–2
Military and Physical Education	1–2	Elective	0–2
Elective	0–2		

Sophomore Year

First Semester	Units	Second Semester	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	½–2½	Military and Physical Education	½–2½
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, quali-

tative 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	*Units*	*Second Semester*	*Units*
English 1	3	English 2	3
French or German	3	French or German	3
General Chemistry	4	Qualitative Analysis	4
Botany 1	4	Zoology 2	4
Hygiene 1	1	Hygiene 2	1
Military and Physical Education	1–2	Military and Physical Education	1–2

Sophomore Year

First Semester	*Units*	*Second Semester*	*Units*
English 41	2	English 42	2
History 1	3	History 2	3
French or German	3	French or German	3
Quantitative Analysis or Organic Chemistry	4	Quantitative Analysis or Organic Chemistry	4
Comparative Anatomy	4	Embryology	4
Military and Physical Education	½–2½	Military and Physical Education	½–2½

Junior Year

First Semester	*Units*	*Second Semester*	*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
Elective	5	Elective	5

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	*Units*	*Second Semester*	*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
Hygiene 1	1	Hygiene 2	1
Physical Education	1	Physical Education	1
Elective	1	Elective	1

Sophomore Year

First Semester	*Units*	*Second Semester*	*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	4	Chemistry 6	4
Physical Education	1	Physical Education	1
Elective	2	Elective	2

Junior Year

First Semester	*Units*	*Second Semester*	*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 123–126.

THE MASTER'S DEGREE IN ARTS AND SCIENCE

For requirements for the Master's Degree, see pages 107–110.

THE SCHOOL OF EDUCATION AND THE NEVADA STATE NORMAL SCHOOL

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.
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.
LUELLA M. FOSTER, B.S., Assistant Professor of Home Economics in Education.
DOROTHY CRANDALL, Instructor in Music.
B. D. BILLINGHURST, A.B., LL.B., Lecturer in Education.
CORNELIA WILLIAMSON, Secretary to the Dean.

COOPERATING TEACHERS

In the High School—
GLADYS BECKER, A.B., English.
AGNES BELL, A.B., Spanish.
EVA HALE, A.B., English.
EDITH HARRIS, A.B., English and Latin.
G. L. HICKS, B.S., Algebra and Physics.
MILDRED HILL, A.B., English.
CLARA LINDSAY, B.S., Biology.
Mrs. ANNA LOOMIS, A.B., Spanish.
EFFIE MACK, M.A., History.
LUCILE SAXTON, A.B., Physical Education.
HELENA SHADE, A.B., English.
ALWINE SIELAFF, A.B., Algebra.
EDWIN STRENG, A.B., Geometry and Chemistry.
IVA WELCH, B.S., Home Economics.
ANTHONY ZENI, A.B., History and Civics.

In the Junior High School—
GRACE BEMIS, B.S., Home Economics.
LULU McLAUGHLIN, A.B., Spanish.
ESTELLE PROUTY, A.B., History.
IRMA SETTLEMEYER, A.B., History.

In the Elementary Schools—
ELIZABETH McCORMACK, A.B., First Grade.
IRIS CRAWFORD, First Grade.
MYRTLE BROWN, Fourth Grade.
ELEANOR MILLER, Fifth Grade.
EVA ANDERSON, Fifth Grade.
THEODOSIA GROMBACK, 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 90–94.

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
Education 31 (The Teaching of Arithmetic)	....	2
Education 34 (The Teaching of English)	3	....
Education 37 (The Teaching of Geography)	2	....
Education 23 (Problems in Rural Education)	2	....
Education 25 (Observation of Teaching)	1	....
Education 28 (Practice Teaching and Conferences)	....	5
Nature Study 1–2	2	2
Music 1–2	1	1
Art 1–2	1	1
Physical Education 1–2	1	1
Home Economics 9 (General Home Economics)	3	....
Political Science 79–80	½	½
Penmanship	....	....
Totals	16½	15½

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

PRACTICE TEACHING

Arrangements have been made with the Reno 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 teachers' 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.
WALTER S. PALMER, E.M., Professor of Metallurgy.
PETER FRANDSEN, A.M., LL.B., 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.
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.
KATHERINE LEWERS, Associate Professor of Freehand Drawing.
KATHARINE RIEGELHUTH, A.M., Associate Professor of English.
FREDERICK L. BIXBY, C.E., Associate Professor of Civil Engineering.
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., Assistant Professor of Mechanical Engineering.
ALFRED LESLIE HIGGINBOTHAM, M.A., Assistant Professor of English.
JOHN EDWARD MARTIE, B.S., Assistant Professor of Physical Education for Men.
RUTH ANNA BILLINGHURST, M.S., Assistant Professor in Chemistry.
Captain LUTHER N. JOHNSON, Assistant Professor of Military Science and Tactics.
ROLLIN H. MCCARTHY, Assistant Professor of Mechanical Engineering.
EDWARD G. SUTHERLAND, A.B., Assistant Professor in Economics, Business and Sociology.
ENOC E. VAUGHAN, Instructor in Military Science and Tactics.
OSCAR T. ROCKLUND, Instructor in Shop Practice.
HAROLD P. MILLER, B.A., Instructor in Oral English.
CHARLES L. SEARCY, M.A., Instructor in Mathematics.
ELMER PENDELL, M.A., Instructor in Economics, Business and Sociology.
WILLIAM R. BLACKLER, B.A., Instructor in Economics, Business and Sociology.

LAWRENCE T. SHAW, B.S.A., Instructor in Physical Education for Men.
SIGMUND W. LEIFSON, B.S., Instructor in Physics.

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 90–94, et seq.

REQUIREMENTS FOR A BACCALAUREATE DEGREE IN ENGINEERING

The Degree of Bachelor of Science in (a) Mining Engineering or Metallurgical 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.

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

Freshman Year—First Semester

		LAB.	LEC.
English 1	Composition and Rhetoric	..	3
Chemistry 5	General Inorganic Chemistry	1	3
Mathematics 11	Advanced Algebra	..	2
Mathematics 13	Plane Trigonometry	..	3
Mechanical Engineering 2	Elementary Mechanical Drawing	3	..
Mechanical Engineering 3	Freehand Drawing	1	..
General Engineering 1	Orientation	..	½
Hygiene 1	Personal Hygiene	..	1
Military 1	Basic Course	1	..
Physical Education 1	Developmental Exercises	½	..
			19

Freshman Year—Second Semester

English 2	Composition and Rhetoric	..	3
Chemistry 6	General Inorganic Chemistry	2	2
Mathematics 14	Analytic Geometry	..	3
Mechanical Engineering 6	Descriptive Geometry	2	1
Geology 3	General Geology	1	2
Hygiene 2	Personal Hygiene	..	1
General Engineering 2	Orientation	..	½
Military 2	Basic Course	1	..
Physical Education 2	Developmental Exercises	½	..
			19

SCHOOL OF MINES

Sophomore Year—First Semester

		LAB.	LEC.
Chemistry 9	Quantitative Analysis	3	..
Mathematics 25	Differential Calculus	..	3
Physics 3	General Physics for Engineers	..	5
Physics 5	Physical Measurements	2	..
Mineralogy 1	Determinative Mineralogy	2	..
Civil Engineering 51	Surveying	..	2
Military 3	Basic Course, second year	..	2
Physical Education 3	Advanced Exercises	½	..
			19½

Sophomore Year—Second Semester

Chemistry 10	Quantitative Analysis	3	..
Mathematics 26	Integral Calculus	..	3
Physics 4	General Physics for Engineers	..	5
Physics 6	Physical Measurements	2	..
Mineralogy 2	Blowpipe Analysis	2	..
Civil Engineering 53	Surveying	..	2
Military 4	Basic Course, second year	..	2
Physical Education 4	Advanced Exercises	½	..
			19½

Summer Work

Civil Engineering 58	Summer Surveying	Eight Weeks

MINING OPTION

Junior Year—First Semester

		LAB.	LEC.
Mining 51	Excavation	..	3
Geology 4	Historical Geology	..	2
Metallurgy 51	Assaying	3	..
Geology 51	Petrology	1	1
Mathematics 55	Analytic Mechanics	..	3
Geology 60	Economic Geology, Nonmetallics	..	3
Metallurgy 55	General Metallurgy	..	3
			19

Junior Year—Second Semester

		LAB.	LEC.
Mining 52	Mine Plant	..	3
Metallurgy 65	Ore Dressing	2	2
Geology 61	Economic Geology Metals	..	3
Mathematics 56	Analytic Mechanics	..	2
Civil Engineering 74	Strength of Materials	..	3
Civil Engineering 72	Testing Materials	1	..
Geology 52	Petrography	2	1
			19

Summer School

Mining, Metallurgy and Geology Trip		Six to Eight Weeks

Senior Year—First Semester

Economics 65	Introduction to Economics and Business Administration	..	3
Mining 61	Mining Methods	..	3
Metallurgy 70	Metallurgy of Gold and Silver	2	1
Electrical Engineering 51	Direct Current Machinery	..	3
Metallurgy 60	Metallurgy of Copper, Lead and Zinc	..	3
Mechanical Engineering 9	Mine Plant Design	2	..
Political Science 79		..	½
			17½

Senior Year—Second Semester

Economics 66	Industrial and Financial Organization	..	3
Mining 72	Economics of Mining	..	3
Electrical Engineering 52	Alternating Current Machinery	..	3
Electrical Engineering 62	Electrical Engineering	2	..
Mining 90	Project	4	..
Civil Engineering 90	Hydraulics	..	3
Political Science 80		..	½
			18½

METALLURGY OPTION

Junior Year—First Semester

Mathematics 55	Analytic Mechanics	..	3
Metallurgy 51	Assaying	3	..
Geology 60	Economic Geology, Nonmetallics	..	3
Mechanical Engineering 54	Engines and Boilers	..	3
Chemistry 81	Physical Chemistry	1	2
Metallurgy 55	General Metallurgy	..	3
			18

Junior Year—Second Semester

Mathematics 56	Analytic Mechanics	..	2
Civil Engineering 74	Strength of Materials	..	3
Civil Engineering 72	Testing Materials	1	..
Metallurgy 65	Ore Dressing	2	2
Chemistry 64	Advanced Quantitative Analysis	2	..
Chemistry 82	Physical Chemistry	1	2
Elective		..	3
			18

Summer Work

Mining, Metallurgy and Geology Trip		Six to Eight Weeks

Senior Year—First Semester

Economics 65	Introduction to Economics and Business Administration	..	3
Electrical Engineering 51	Direct Current Machinery	..	3
Metallurgy 60	Metallurgy Copper, Lead and Zinc	..	3
Metallurgy 70	Metallurgy of Gold and Silver	2	1
Mechanical Engineering 9	Metallurgical Plant Design	2	..
Metallurgy 56	Metallography	1	1
Metallurgy 74	Nonmetallics	..	2
Political Science 80		..	½
			18½

Senior Year—Second Semester

		LAB.	LEC.
Economics 66	Industrial and Financial Organization	..	3
Electrical Engineering 52	Alternating Current Machinery	..	3
Electrical Engineering 62	Electrical Engineering Laboratory	2	..
Civil Engineering 90	Hydraulics	..	3
Metallurgy 72	Electro Metallurgy	..	2
Metallurgy 73	Problems and Seminar	..	2
Metallurgy 80	Project	..	2
Metallurgy 57	Minor Metals and Rare Metals	2	..
Political Science 81		..	1
		..	½
			18½

SCHOOL OF MECHANICAL ENGINEERING

Freshman Year—Both Semesters

Same as for Schools of Mines, Electrical and Civil Engineering. See pages 130, 133, 135.

Sophomore Year—First Semester

		LAB.	LEC.
Mechanic Arts 1	Wood Work	1	..
Mechanic Arts 2	Forging	2	..
Physics 3	General Physics for Engineers	..	5
Physics 5	Physical Measurements	2	..
Mathematics 25	Differential Calculus	..	3
Military 3	Basic Course, second year	..	2
Physical Education 3	Advanced Exercises	½	..
Elective		..	4
			19½

Sophomore Year—Second Semester

Mechanic Arts 4	Foundry	1	..
Mechanic Arts 6	Pattern Making	1	..
Physics 4	General Physics for Engineers	..	5
Physics 6	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	..	2
Physical Education 4	Advanced Exercises	½	..
Elective		..	1
			19½

Junior Year—First Semester

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
Civil Engineering 51 and 52	Elementary Surveying and Plotting	2	2
Mechanics Arts 3	Machine Shop	2	..
			20

Junior Year—Second Semester

Electrical Engineering 52	Alternating Current Machinery	..	3
Electrical Engineering 62	Electrical Engineering Laboratory	1	1
Civil Engineering 74	Strength of Materials	..	3
Civil Engineering 72	Testing Materials	1	..
Civil Engineering 90	Hydraulics	..	3
Mechanical Engineering 64	Mechanical Laboratory	1	..
Mathematics 56	Analytic Mechanics	..	2
Mechanic Arts 5	Machine Shop	2	..
Elective		..	1
			18

Senior Year—First Semester

		LAB.	LEC.
Mechanical Engineering 53	Machine Design	..	3
Mechanical Engineering 55	Thermodynamics	..	3
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 Administration	..	3
Political Science 79	Constitution of United States and Nevada	..	½
			18½

Senior Year—Second Semester

Mechanical Engineering 56	Thermodynamics	..	3
Mechanical Engineering 58	Mechanics of Heat Engines	..	3
Mechanical Engineering 66	Mechanical Laboratory	2	1
Economics 66	Financial and Business Organization	..	3
Psychology 5	General Psychology	..	3
Political Science 80	Constitution of United States and Nevada	..	½
Elective		..	3
			18½

SCHOOL OF ELECTRICAL ENGINEERING

Freshman Year—Both Semesters

Same as for Schools of Mines, Mechanical Engineering and Civil Engineering. See pages 130, 132, 135.

Sophomore Year—First Semester

Physics 3	General Physics for Engineers	..	5
Physics 5	Physical Measurements	2	..
Mathematics 25	Differential Calculus	..	3
Mechanical Engineering 9	Advanced Mechanical Drawing	2	..
Mechanic Arts 3	Machine Shop	2	..
Military 3	Basic Course, second year	..	2
Physical Education 3	Advanced Exercises	½	..
Elective		..	4
			20½

Sophomore Year—Second Semester

Phyics 4	General Physics for Engineers	..	5
Physics 6	Physical Measurements	2	..
Mathematics 26	Integral Calculus	..	3
Mathematics 32	Practical Applications	..	2
Metallurgy 54	Metallurgy of Iron, Steel and Alloys	..	2
Mechanic Arts 5	Machine Shop	2	..
Military 4	Basic Course, second year	..	2
Physical Education 4	Advanced Exercises	½	..
Elective		..	2
			20½

Junior Year—First Semester

Electrical Engineering 51	Direct Current Machinery	..	3
Electrical Engineering 61	Electrical Engineering Laboratory	1	1
Mechanical Engineering 54	Engines and Boilers	..	3
Mechanical Engineering 51	Kinematics	1	2
Mathematics 55	Analytic Mechanics	..	3
Civil Engineering 51–52	Elementary Surveying and Plotting	2	2
			18

Junior Year—Second Semester

Electrical Engineering 52	Alternating Current Machinery	..	3
Electrical Engineering 62	Electrical Engineering Laboratory	1	1
Mechanical Engineering 64	Mechanical Engineering Laboratory	1	..
Civil Engineering 74	Strength of Materials	..	3
Civil Engineering 72	Testing Materials Laboratory	1	..
Civil Engineering 90	Hydraulics	..	3
Mathematics 56	Analytic Mechanics	..	2
Elective		..	3
			18

Senior Year—First Semester

		LAB.	LEC.
Electrical Engineering 53	Advanced Alternating Currents	..	3
Electrical Engineering 55	Electrical Problems	1	..
Electrical Engineering 63	Electrical Engineering Laboratory	2	1
Physics 57	Electrical Measurements	2	..
Mechanical Engineering 55	Thermodynamics	..	3
Mechanical Engineering 65	Mechanical Engineering Laboratory	2	1
Economics 65	Introduction to Economics and Business Administration	..	3
Political Science 79	Constitution of United States and Nevada	..	½
			18½

Senior Year—Second Semester

Electrical Engineering 58	Electrical Design	1	2
Electrical Engineering 56	Electrical Problems	2	..
Electrical Engineering 64	Electrical Engineering Laboratory	2	1
Mechanical Engineering 56	Thermodynamics	..	3
Economics 66	Industrial and Financial Organization	..	3
Political Science 80	Constitution of United States and Nevada	..	½
Elective		..	4
			18½

SCHOOL OF CIVIL ENGINEERING

Freshman Year—Both Semesters

Same as for Schools of Mines, Mechanical Engineering and Electrical Engineering. See pages 130, 132, 133.

Sophomore Year—First Semester

Mathematics 25	Differential Calculus	..	3
Physics 1a, 1b	General Physics	1	3
Civil Engineering 51–52	Elementary Surveying	2	2
Mineralogy 1	Determinative Mineralogy	2	..
Geology 4	Historical Geology	..	2
Military 3	Basic Course, Practical and Theoretical	1	1
Physical Education 3	Advanced Exercises	½	..
Elective		..	3
			20½

Sophomore Year—Second Semester

Mathematics 26	Integral Calculus	..	3
Mathematics 32	Practical Applications	..	2
Physics 2a, 2b	General Physics	1	3
Civil Engineering 53–54	Advanced Surveying	2	2
Civil Engineering 69	Graphic Statics	1	1
Civil Engineering 20	Technical Report	1	..
Metallurgy 54	Metallurgy of Iron, Steel and Alloys	..	2
Military 4	Basic Course, Practical and Theoretical	1	1
Physical Education 4	Advanced Exercises	½	..
			20½

Junior Year—First Semester

Mathematics 55	Analytic Mechanics	..	3
Civil Engineering 63–64	Railroad Engineering	2	3
Civil Engineering 75	Structural Analysis	..	3
Mechanical Engineering 54	Engines and Boilers	..	3
Electrical Engineering 21	Elements of Electrical Engineering	..	3
Political Science 79	Constitution of United States and Nevada	..	½
Elective		..	2
			19½

Junior Year—Second Semester

		LAB.	LEC.
Mathematics 56	Analytic Mechanics	..	2
Civil Engineering 55	Foundations and Substructures	1	2
Civil Engineering 72	Testing of Materials	1	..
Civil Engineering 74	Mechanics of Materials	..	3
Civil Engineering 76	Structural Analysis	..	2
Civil Engineering 90	Hydraulics	..	3
Political Science 80	Constitutions of United States and Nevada	..	½
Elective		..	3
			17½

CIVIL ENGINEERING 58. *Summer Surveying.* Four weeks of the more advanced work of C. E. 58 will be required of all civil engineering students who cannot furnish a satisfactory substitution of practical experience on survey work including considerable instrument work.

Senior Year—First Semester

		LAB.	LEC.
Civil Engineering 67	Engineering Economics	..	2
Civil Engineering 77	Structural Design	3	..
Civil Engineering 85	Reinforced Concrete	2	2
Civil Engineering 94	Irrigation Engineering	..	3
Psychology 5	General Psychology	..	3
Economics 65	Introduction to Economics and Business Administration	..	3
			18

Senior Year—Second Semester

Civil Engineering 78	Structural Design	2	..
Civil Engineering 92	Sewerage	..	3
Civil Engineering 86	Reinforced Concrete	2	1
Civil Engineering 93	Public Water Supplies	..	2
Civil Engineering 99 or Civil Engineering 100	Engineering Problems Thesis	2	..
Economics 66	Industrial and Financial Organization	..	3
Elective		..	3
			18

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.B., 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.
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.
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.
FREDERICK L. BIXBY, C.E., Associate Professor of Civil Engineering.
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WILLIAM M. HOSKINS, Ph.D., Associate Professor of Chemistry.
GEORGE HARDMAN, M.S., Assistant Professor of Agronomy.
JESSIE P. POPE, B.S., Assistant Professor of Home Economics.
CLARENCE H. KENT, B.S., Assistant Professor of Mechanical Engineering.
LOUISE KERR HAMMOND, B.S., Assistant Professor of Home Economics.
ALFRED LESLIE HIGGINBOTHAM, M.A., Assistant Professor of English.
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LUELLA M. FOSTER, B.S., Assistant Professor of Home Economics.
RUTH ANNA BILLINGHURST, M.S., Assistant Professor in Chemistry.
Captain LUTHER N. JOHNSON, Assistant Professor of Military Science and Tactics.
CHARLES LEROY BROWN, M.A., Instructor in Biology.
Sergeant ENOC E. VAUGHAN, U. S. A., Instructor in Military Science and Tactics.
EDWARD G. SUTHERLAND, A.B., Assistant Professor of Economics, Business and Sociology.
WINIFRED E. CHAMPLIN, B.S., Instructor in Physical Education for Women.
OSCAR T. ROCKLUND, Instructor in Shop Practice.
HAROLD P. MILLER, B.A., Instructor in English.

CHARLES L. SEARCY, M.A., Instructor in Mathematics.
ELMER PENDELL, M.A., Instructor in Economics, Business and Sociology.
WILLIAM R. BLACKLER, A.B., Instructor in Economics, Business and Sociology.
LUETHEL AUSTIN, B.A., Instructor in English.
SIGMUND W. LEIFSON, B.S., Instructor in Physics.
MARGARET REGAN, 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. 34.

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 and Shire horses; Angus, Hereford and Shorthorn cattle; Corriedale, Hampshire, Rambouilett, Southdown, 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 90–94.

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 144 semester units for the Class of 1926; 137 semester units for the Class of 1927, and 130 semester units thereafter.

COLLEGE OF AGRICULTURE

COURSES OF STUDY

FRESHMAN YEAR	*First Semester*	*Second Semester*
Military 1–2	1	1
Hygiene 1–2	1	1
Physical Education 1–2	½	½
Chemistry	4	4
English 1–2	3	3
Agricultural Electives	3	3
Nonagricultural Electives	4	4
	16½	16½
SOPHOMORE YEAR		
Military 3–4	2	2
Physical Education 3–4	½	½
Agricultural Electives	6	6
Nonagricultural Electives	6	6
Open Elective	2	2
	16½	16½
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 2 units in Hygiene in the Freshman and Sophomore years) in the School of Home Economics as given on the following pages.

REQUIREMENTS FOR A MINOR IN HOME ECONOMICS

Home Economics 15, 18, 31, 32, 52, 76 and 86, and Hygiene 7–8.

AIM

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.	LAC.
English 1	Composition and Rhetoric	..	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
Hygiene 1		..	1
Botany 3	Morphology and Physiology of Flowering Plants	1	2
		..	17
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

		LAB.	LEC.
English 11	Public Speaking	..	2
Chemistry 5	General Inorganic Chemistry	1	3
Physical Education 3	Sophomore Practice	½	.
Home Economics 15	Clothing	2	.
Physics 19	Household Physics	1	2
Psychology 5	General Psychology	..	3
			14½

Sophomore Year—Second Semester

English 12	Public Speaking	..	2
Chemistry 26	Household Chemistry	2	2
Physical Education 4	Sophomore Practice	½	.
Home Economics 18	Clothing	2	.
Physics 20	Household Physics	1	2
Philosophy 22	Applied Ethics	..	3
Elective		2	.
			16½

Junior Year—First Semester

Hygiene 7	Anatomy, Physiology and Hygiene	1	2
Economics 1	Principles of Economics	..	3
Home Economics 55	Foods and Cookery	3	1
Elective		6	.
			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	.
			16

COURSES FOR ARTS AND SCIENCE STUDENTS

Home Economics 33	Foods	..	2
Home Economics 34	Clothing and Textiles	..	2
Home Economics 53	The House	1	1
Home Economics 54	Health	..	2
Home Economics 52	Principles of Extension	..	2

RECOMMENDED ELECTIVES

Group I—Related Subjects:

Zoology 2, Bacteriology 51, History 53, English 41–42, Latin 61 (Greek and Roman Art), and Latin 62 (Renaissance and 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, 51, 52, 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

College of Agriculture

PROFESSOR STEWART
ASSISTANT PROFESSOR HARDMAN

1. Elementary Agriculture. Introduction to general agriculture for students who are not registered in the College of 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 retension, 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.* Hardman.

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.* Hardman. 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 sanitation including heating, lighting, water supply, and sewerage disposal. *First semester. Laboratory, two periods. Two credits.* Hardman. Fee, $1.

73. FARM MOTORS AND TRACTORS. The advanced study of farm motors, water, gasoline, and electric engines; gasoline and steam tractors; demonstrations and practice work are given in the operation of the various types of motors. *First semester. Lecture, one hour; laboratory, two periods. Three credits.* Hardman. Fee, $2.

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.*

ANIMAL HUSBANDRY

College of Agriculture

PROFESSOR WILSON

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. *Mumford:*

The Breeding of Animals. *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.*

ART

ASSOCIATE PROFESSOR LEWERS

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
PROFESSOR LEHENBAUER
ASSOCIATE PROFESSOR MACK
MR. BROWN

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 products, water purity, sewerage, 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, $2.

Botany

Requirements for a minor in Botany: Botany 1 and 2, Zoology 2, and six hours of Junior-Senior work.

Requirements for a major in Botany: Botany 1 and 2, Zoology 2, and twelve hours of Junior-Senior work.

Additional courses advised: Chemistry 6, 51–52, Physics 1–2 (if Physics was not presented for admission), German 1–2 and 59–60, and French 1–2.

1. Morphology and Physiology of the Flowering Plants. A study of the fundamental principles of botany. The structure, physiology, and adaptations of the higher plants. *First semester. Lectures, two hours; laboratory, two periods. Four credits.* 110 and 210 Agricultural Building. Lehenbauer, Brown and Assistants. Fee, $1.

2. Morphology and Physiology of the Nonflowering Plants. A study of representative types of algæ, liverworts, fungi, mosses, ferns, and gymnosperms. The evolution of the plant kingdom. *Second semester. Lectures, two hours; laboratory, two periods. Four credits.* 210 Agricultural Building. Lehenbauer. Fee, $1.

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. Lectures, two hours; laboratory, one period. Three credits.* 110 Agricultural Building. Lehenbauer and assistant. Fee, $1.

21. Ecology. The geographical distribution of plants and plant structure in relation to environment. *Prerequisite:* Botany 1. *First semester. Lectures, two hours. 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. Lecture, one hour; laboratory, two periods. Three credits.* Agricultural Building. Lehenbauer. Fee, $1.

55. Plant Physiology. A more advanced study of plant nutrition, photosynthesis, transpiration and the environmental factors as they affect plant growth. *First semester. Lecture, two hours; laboratory, two periods. Four credits.* Alternates with Botany 61. 210 Agricultural Building. Lehenbauer. Fee, $2.

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. Lectures, two hours; laboratory, one period. Three credits.* Alternates with Horticulture 2. 210 Agricultural Building. Lehenbauer. Fee, $2.

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.

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.

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 1–2, 7–8, Zoology 9, and Bacteriology 52.

1–2. General and Personal Hygiene. Two lectures per week throughout the year. Required of all Freshmen. *One credit.* Frandsen, Mack, and others.

4. Teachers' Hygiene. This course consists of lectures, assigned readings, and demonstrations covering the elemen-

tary 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. *First semester. Three lectures. Three 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. Frandsen and Brown. Fee, $1.50 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. Fee, $1.50.

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 and 8 or 9, 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. *Second semester. Lectures, two hours; laboratory, two periods. Four credits.* 110 and 210 Agricultural Building. Frandsen and Brown. Fee, $2.

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. Four credits.* 5 Agricultural Building. Frandsen. Fee, $2.

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 Agriculture 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 prepara-

tion of embryological material will be given. *Prerequisite:* Zoology 2 and 9, or Hygiene 7–8. *Second semester. Lectures, three hours; laboratory, two periods. Four credits.* 212 Agricultural Building. Frandsen. (Alternates with Zoology 65 and 66.) Fee, $1.

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, $1.

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, $1.

92. ADVANCED ZOOLOGY. Continuation of course 91.

201. Thesis course for graduates.

CHEMISTRY

PROFESSOR ADAMS
ASSOCIATE PROFESSOR SEARS
ASSOCIATE PROFESSOR HOSKINS
ASSISTANT PROFESSOR BILLINGHURST

Requirements for a minor in Chemistry: Either (for students without admission credit) courses 1, 6, or (for students with one admission credit) courses 5, 6, and, in either case, course 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, 6, or (for students with one admission credit) courses 5, 6, and, in either case, courses 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 115.

1. ELEMENTARY AND GENERAL INORGANIC CHEMISTRY. Lectures, recitations, and laboratory work covering the elementary principles of chemistry and the nonmetals. Designed for students who have not presented matriculation chemistry. Covers the same material as Chemistry 5 with additional laboratory exercises on the preparation of the nonmetals and their compounds. Accepted as prerequisite for Chemistry 6. *Either semester. One lecture; two recitations; two laboratory periods. Five credits.* Adams and staff. Fee, $6.

5. GENERAL INORGANIC CHEMISTRY. A course in general chemistry covering the nonmetals. Open to students who have presented matriculation chemistry or who have completed Chemistry 1. *Either semester.* Three lectures; one laboratory period. *Four credits.* 210 Chemistry Building. Adams and staff. Fee, $3.

6. GENERAL INORGANIC CHEMISTRY AND QUALITATIVE ANALYSIS. A lecture and laboratory course designed to give the student a general knowledge of the occurrence, preparation, and properties of the metallic elements, including the systematic qualitative analysis of the more common metals and acids. The subject-matter will be taken up from the standpoint of the periodic law and the theories of qualitative analysis. *Prerequisite:* Chemistry 1 or 5. *One lecture; two recitations, two laboratory periods each week. Either semester. Four credits.* Room 106, Chemistry Building. Sears and staff. Fee, $6.

9. QUANTITATIVE ANALYSIS. Training in the general methods of manipulation will be given in gravimetric analysis. *One lecture and three laboratory periods each week. Prerequisite:* Chemistry 6. *Either semester. Three credits.* 203 Chemistry Building. Adams. Fee, $9.

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. Adams. Fee, $9.

23. AGRICULTURAL QUANTITATIVE ANALYSIS. A laboratory course designed to give the student familiarity with quantitative methods and some experience in the analysis of farm and dairy products, soil, fertilizers, insecticides, and foods. *Prerequisite:* Chemistry 9. *One lecture and three laboratory periods each week. First semester. Four credits.* 203 Chemistry Building. Adams. 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 applica-

tions of chemistry to problems of the household. *Perequisite:* Chemistry 5. *Second semester. Two lectures and two laboratory periods. Four credits.* R. A. Billinghurst. 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 and R. A. Billinghurst. Fee, $6.

54. Advanced Organic Chemistry. (Graduate credit given with consent of instructor.) A lecture course on special chapters in organic chemistry. *Prerequisite:* Chemistry 51–52. *First semester. Two credits.* 210 Chemistry Building. Adams.

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. Chemistry of the Rarer Metals. (Graduate credit given with consent of instructor.) A lecture course designed to give the student a rather intimate knowledge of the less common elements and their relation to the more common elements. The subject-matter will be taken up from the standpoint of the periodic law, including the more important periodic tables and the more recent developments in atomic structure. *Prerequisite:* Two years of College Chemistry. *Second semester. Two credits.* 206 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 and Hoskins. Fee, $6.

64. Advanced Quantitative Analysis. A laboratory course designed particularly for mining students, but open to all students interested in the nonmetallics. Analysis of such substances as gypsum, cement, borax, silicates, alkali, etc., will be emphasized. *Prerequisite:* Chemistry 10. *Second semester. Two credits.* 204 Chemistry Building. Adams. Fee, $6.

72. Advanced Inorganic Preparations. (Graduate credit given with consent of instructor.) A laboratory course in which 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. *Prerequisite:* Chemistry 51. *Second semester. Two credits.* 206 Chemistry Building. Sears. 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 11. 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 the 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, and Hoskins. 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, and Hoskins. Fee, $3 per credit-hour, according to work.

CIVIL ENGINEERING

College of Engineering

PROFESSOR BOARDMAN

ASSOCIATE 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 literature. *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. *Second 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.

58. Sm. Summer Surveying. This course will start soon after the close of the regular college year and the first three weeks will cover the same ground as courses 52 and 54 with the advantages attending continuous full-time work, instead of detached laboratory periods. Part of the remaining time will be spent on an extended topographic survey in the hills

north of Reno with a triangulation control, the topography being mostly taken by the plane table method. Considerable practice in taking and computing direct solar observations for meridian will be included in this course. Also, a course in railroad engineering theory and practice will be given including a complete location survey of a piece of railroad, using transit stadia topography and paper location, the taking of cross sections, computations of volume and estimate of cost. *Prerequisite:* C. E 51–53. Eight weeks. Required of mining students during the summer following their sophomore year. *One credit* (necessary to bring the total to the required 152 credits). Civil Engineering Staff. Fee, $20.

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.

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 applications 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, hooks, 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. Applications 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 3 and 4. *Second semester. Lectures, three hours. Three credits.* Electrical Building. Boardman. Fee, $1.

92. Sewerage. Studies are made of the various sewerage, drainage, and sewage-disposal systems of towns and cities. *Prerequisite:* C. E. 90. *Second semester. Lectures, three hours. Three credits.* Electrical Building. Bixby.

93. Public Water Supplies. A study is made of the sources, collection, purification, and distribution of municipal water supplies from the engineering and sanitary points of view. *Prerequisite:* C. E. 90. *Second semester. Lectures, two hours. Two 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. Boardman.

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 Civil Engineering. Advanced work in structural engineering including the analysis and design of one or more of the following types: Arch, cantilever, suspension and movable bridges. *Prerequisite:* Civil Engineering 77–78. *Lectures and laboratory. Four to six credits for the year according to work accomplished.* Electrical Building. Boardman.

THE CLASSICS

PROFESSOR CHURCH
PROFESSOR THOMPSON

Requirements for a minor in Greek: Greek 1–2, 3–4, and six units in courses 51 to 68.

Requirements for a major in Greek: Greek 1–2, 3–4, and twelve units in courses 51 to 68.

Students intending to take a major or a minor in Greek are advised to elect course 5, if they have not a thorough grasp of the elements of Greek, and a course in the history of Greece.

Requirements for a minor in Latin: With no admission credits in Latin—Latin 1–2, 3–4, and six units; with two admission credits—Latin 3–4, and six units.

Requirements for a major in Latin: With no admission credits—Latin 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 Æneid, will be accepted in meeting major and minor requirements.

The substitution of courses in Greek for equivalent courses in Latin will be permitted.

I. Greek

1–2. 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.* Total course only accepted toward graduation. (Given only if elected by five or more students.) 207 Education Building. Thompson.

3–4. 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.

51. 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.

52. 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.*

Three credits. (Given only if elected by five or more students.) 207 Education Building. Thompson.

II. LATIN

A knowledge of Latin is not required for Courses 41–42, 43–44, 51–52, and 56.

1–2. BEGINNING LATIN. This course is designed to prepare for the reading of Vergil and also for admission to the professional schools. *Both semesters. Six or ten credits for the year.* Total course only accepted toward graduation. 203 Morrill Hall. Church.

3–4. VERGIL. Æneid. 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. Church.

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 and 6 given alternate years.

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.

41. GREEK AND ROMAN ART. Illustrated by lantern slides and reproductions. *First semester. Two credits.* 203 Morrill Hall. Church.

42. RENAISSANCE AND MODERN ART. Illustrated by lantern slides and reproductions in color. *Second semester. Two or three 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.

51–52. COMPARATIVE CLASSICAL POETRY IN ENGLISH. Particularly the Epic, Drama, and Pastoral, with supplemental reference to Classical Mythology and Modern Literature. *Both semesters. Two credits each semester.* (Alternate years; not given 1925–1926.) 203 Morrill Hall. Church.

53. COMPARATIVE PASTORAL POETRY. Theocritus to Mantuan. *First semester. Two credits.* (Alternate years; not given 1925–1926.) 203 Morrill Hall. Church.

54. THE ROMAN NOVEL. Petronius, Trimalchio's Dinner. *Second semester. Two credits.* 203 Morrill Hall. Church.

56. COMPARATIVE MYTHOLOGY. Its religious, art, and literary forms. *Second semester. Two credits.* (Alternate years; not given 1925–1926.) 203 Morrill Hall. Church.

101. SEMINAR FOR GRADUATES. The study of the Roman burial formulæ, their development, and religious significance. *Both semesters. Three credits.* 203 Morrill Hall. Church.

DAIRY HUSBANDRY

College of Agriculture

PROFESSOR SCOTT

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.

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 and Bacteriology 51. *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. *First semester. Lecture, 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, Bacteriology 51. *Second semester. Lecture, one hour; laboratory, two periods. Three credits.* 12 Agricultural Building. Fee, $3. Scott. (This course will not be given unless elected by five or more students.)

ECONOMICS, BUSINESS, AND SOCIOLOGY

ASSOCIATE PROFESSOR FOSTER
ASSISTANT PROFESSOR SUTHERLAND
MR. PENDELL
MR. BLACKLER

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: Twelve credits in Economics 1–2 and Business Administration 41–42; eighteen additional credits in the department, not less than twelve 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. Pendell and Sutherland.

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 economic determinism and of personalism. *Open to Freshmen. First semester. Three credits.* 103 Education Building. (Not given 1925–1926.)

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. Pendell.

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. Pendell.

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. (Not given 1925–1926.)

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 labora-*

tory period. Three credits. 103 Education Building. Sutherland.

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. (Not given 1925–1926.)

65. INTRODUCTION TO ECONOMICS AND BUSINESS ADMINISTRATION (College of Engineering). *Prerequisite:* Junior standing. *First semester. Three credits.* 200 Education Building. Sutherland.

66. INDUSTRIAL AND FINANCIAL ORGANIZATION (College of Engineering). *Prerequisite:* Economics 65. *Second semester. Three credits.* 200 Education Building. Sutherland.

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 text-book. *Prerequisite:* Economics 1–2. *Both semesters. Two credits each semester.* 109 Agricultural Building. Pendell.

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 improvements. *Prerequisite:* Economics 1–2. *First semester. Two credits.* 109 Agricultural Building. Foster.

93–94. ECONOMIC PROBLEMS. A course for debaters. The content of the course will be designed to furnish a background for an understanding of the current intercollegiate debating subjects. Compare Political Science 93–94. *Prerequisite:* Consent of the instructor based largely on evidence of the student's ability to profit by independent study under regular guidance. *Both semesters. One-half to two credits each semester according to work done.* (The fact that the credit value of this course will ordinarily be assigned at the end of the semester must not lead the student to expect to earn a total of more credits than his permissible load.) 103 Education Building. (Not given 1925–1926.)

95. SEMINAR *Both semesters.* Hours to be arranged with individual students. *One credit each semester.* Sutherland.

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. Blackler.

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. Sutherland.

58. ADVERTISING. Principles and practice, media, copy, layout, campaigns. *Prerequisite:* Business Administration 41–42. *Second semester. Two credits.* 200 Education Building. Sutherland.

59. BUSINESS MANAGEMENT. Internal organization and control for different forms of business enterprise. Office management, credits, etc. *Prerequisite:* Business Administration 41–42. *First semester. Two credits.* 200 Education Building. Sutherland.

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 in 1925–1926.)

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. Sutherland.

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 Education Building.

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. (Not given 1925–1926.)

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.*

Sociology

71. Introduction to the Study of Sociology. The social nature of man; the nature of society; social institutions; social evolution. *First semester. Three credits.* 103 Education Building. Pendell.

72. Social Progress. A study of social organization in relation to fundamental progress. Contemporary social movements and tendencies, with special reference to the more or less conscious effort of society to control its evolution in the interest of better living. *Prerequisite:* Sociology 71. *Second semester. Three credits.* 103 Education Building. Pendell.

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. Foster. (Not given in 1925–1926.)

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. Foster. (Not given in 1925–1926.)

95. Seminar. *Both semesters.* Hours to be arranged with individual students. *One credit each semester.* Pendell.

EDUCATION

PROFESSOR HALL
PROFESSOR TRANER
ASSOCIATE PROFESSOR FOSTER

MR. BILLINGHURST
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.

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.

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 Education Building. B. D. Billinghurst.

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.

28. Practice 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. ....., Hall, and Cooperating Teachers.

29. Practice 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. ....., 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.

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.

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.

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 for Primary Teachers. *Second semester, second year. One credit.* 209 Education Building.

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.

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.

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. Billinghurst.

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.

75–76. PRACTICE TEACHING[1]. 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 reserve two consecutive periods on Tuesday and Thursday forenoons and one period on Monday and Wednesday afternoons for this work. *Both semesters. Two credits each semester.* Education Building and Public Schools. Traner, Hall, and Cooperating Teachers.

84. SUPERVISION IN THE ELEMENTARY GRADES. This course is designed for those intending to become principals, supervisors, or administrators in education. Observation, readings, and discussions. Open to qualified upper classmen. *Second semester. Two credits.* 209 Education Building. Hall.

HOME ECONOMICS

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.* Foster.

75–76. PRACTICE 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.* Foster, Traner, and Cooperating Teachers.

COURSES OFFERED PRIMARILY FOR TEACHERS IN SERVICE

Time and place according to the convenience of the teachers. No fees for teachers in service.

[1]Practice Teaching may not be taken unless Education 71 has been taken or is taken at the same time.

121–122. SCHOOL SUPERVISION. A course intended for prospective supervisory officers. *Both semesters. One credit each semester.* 105 Education Building. Hall and ..... Given only upon request of a sufficient number of teachers.

Music

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. Crandall.

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; less musical children; and practice teaching in the public schools of Reno. *Prerequisite:* Music 1–2. *First semester. Two credits.* 204 Education Building. Crandall.

OPEN TO ALL STUDENTS

10. MUSIC APPRECIATION. A thorough study of music literature as to form; historical significance; melody and harmony; types of piano music; of chamber and orchestral music; and of vocal music. A variety of musical illustrations offered through the use of the talking machine. Open to all students. *First semester. Two credits.* 204 Education Building. Crandall.

11–12. Section A. WOMEN'S GLEE CLUB. Membership open to all students of musical ability who can pass entrance requirements. Examination given by special appointment. Opportunity given for public appearance in concerts, cantatas, assemblies, and professional engagements throughout the State. *Both semesters. One-half credit each semester.* 204 Education Building. Crandall.

11–12. Section B. MEN'S GLEE CLUB. For a general description of this course, see Section A. 204 Education Building. Haseman.

15–16. Section A. ORCHESTRA. *Both semesters. One-half credit each semester.* 204 Education Building. Williams.

15–16. Section B. CHAMBER MUSIC. Students of advanced standing only may apply for entrance. *Both semesters. One-half credit each semester.* 204 Education Building. Williams.

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. The review of major and minor scales; intervals and triads; chord analysis of simple hymns; connection and inversion of primary and secondary triads; cadences; chord of the dominant seventh and its inversion; simple keyboard harmonization; construction and harmonization of original melodies; harmonization of given basses and melodies; ear recognition and practice in naming chords as illustrated at the piano. *Prerequisite:* Music 1–2. *Both semesters. Three credits each semester.* 204 Education Building. Crandall.

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, Crandall; Sec. B, Haseman.

57. HISTORY OF MUSIC. Lecture course with collateral readings. Outline of the evolution of music by periods; lives of composers; music of the various periods and in all the different forms, illustrated with the Victrola. *Second semester. Two credits.* 204 Education Building. Crandall.

59–60. Section A. ORCHESTRA. For description see Music 15–16. *Prerequisite:* Music 15–16. *One-half credit each semester.* 204 Education Building. Williams.

59–60. Section B. CHAMBER MUSIC. Students of advanced standing only may apply for entrance. *One-half credit each semester.* 204 Education Building. Williams.

63–64. BAND. For general description, see Music 17–18. *Prerequisite:* Music 17–18. Kent.

ELECTRICAL ENGINEERING

College of Engineering

PROFESSOR S. G. PALMER
ASSISTANT PROFESSOR MCCARTHY

1. ENGINEERING LABORATORY. The installation, operation, and repair of the various types of electrical and mechanical laboratory and power-station equipment. This course is intended to familiarize the student with the laboratory equipment and methods, and is introductory to the Junior and Senior laboratory courses. *First semester. One laboratory period. One credit.* Electrical Building.

2. ENGINEERING LABORATORY. A continuation of the preceding course, involving the construction, installation, and operation of apparatus for testing mechanical and electrical equipment. *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. This course may be elected by students outside of the Engineering College. *First semester. Three credits.* 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. *First semester. Three credits.* Electrical Building.

52. ALTERNATING-CURRENT MACHINERY. Theory and application of alternating currents in electrical circuits and machinery; representation of alternating currents by vectors and by complex quantities. *Second semester. Three credits.* Electrical Building. Palmer.

53. ADVANCED ALTERNATING CURRENTS. A continuation of the preceding course, taking up the more advanced problems in the application of electrical machinery. *First semester. Three credits.* Electrical Building. Palmer.

54. ELECTRIC RAILWAYS. A study of the apparatus and construction involved in a modern railway system, including locomotive and car equipment, track construction, and substations. *Prerequisite:* E. E. 51 and 52. *Second semester. Two credits.* Electrical Building. Palmer.

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, etc. *Both semesters. Three credits total for the two semesters.* Electrical Building. Palmer.

58. ELECTRICAL DESIGN. A study of the principles of

electrical machine design. The course will include recitation and computing periods and during the term each student will be given several definite design problems. *Prerequisite:* E. E. 52 and 53. *Second semester. Three credits.* Electrical Building. Palmer.

61–62. ELECTRICAL ENGINEERING LABORATORY. Instruction in the use and care of electrical measuring instruments. Elementary tests on direct- and alternating-current machinery. *Prerequisite:* Physics 3, 4, 5, and 6. Must be preceded or accompanied by E. E. 51, 52. *Both semesters. Lecture, one hour; laboratory, one period. Two credits each semester.* Electrical Building. Palmer and McCarthy. Fee, $2.50.

63–64. ELECTRICAL ENGINEERING LABORATORY, ADVANCED COURSE. This course is a continuation of the preceding one, but deals with more advanced problems in electrical testing. *Prerequisite:* E. E. 51, 52, 61–62. *Both semesters. Lecture, one hour; laboratory, two periods. Three credits each semester.* Electrical Building. Palmer. Fee, $2.50.

65–66. ENGINEERING APPLICATIONS. This course takes up the study of storage-battery engineering, practical illumination problems, electric heating and welding, and other applications of electricity in modern engineering practice. Elective for Junior and Senior students. *Both semesters. Three credits each semester.* Electrical Building. Palmer.

67–68. TELEPHONE ENGINEERING. An elective course for Senior students who have completed the prescribed course for Junior electrical students. The course takes up the study of modern telephone systems, including the application of the vacuum valve. It also includes the study of radio circuits and equipment as applied to both telephone and telegraph work. *One lecture and one laboratory period. Both semesters. Two credits each semester.* Electrical Building. Palmer. Fee, $2.50.

80. ELECTRICAL INVESTIGATION. Original investigation of some electrical engineering problem. Elective for Seniors in Electrical Engineering, who, in the opinion of the instructor, are qualified to undertake the work and are particularly interested in the special study to be undertaken. *Second semester. Two credits.* Electrical Building. Palmer. Laboratory fee of $5 may be required.

ENGLISH LANGUAGE AND LITERATURE

PROFESSOR H. W. HILL
PROFESSOR A. E. HILL
ASSOCIATE PROFESSOR RIEGELHUTH
ASSISTANT PROFESSOR HIGGINBOTHAM
MR. MILLER
MISS AUSTIN

Requirements for a minor in English: English 44–45, 78, 79, or 80, 94, and six additional units in courses 51 to 100.

Requirements for a major in English: English 44–45, 78 or 80, 94, and twelve 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, Higginbotham, Miller, and Austin.

11–12. PUBLIC SPEAKING. The study of principles of effective speaking, voice building, and gesture. The presentation of original speeches before the class, illustrating the different forms of public address. *Both semesters. Two credits each semester.* 201 Stewart Hall. Miller.

13–14. ORATORY. The study of great speeches, with the preparation and presentation of formal addresses. Lectures and required reading. *Prerequisite:* English 11–12. *Both semesters. One credit each semester.* 201 Stewart Hall. Miller.

16–17. ARGUMENTATION AND DEBATE. The discussion of the principles of argumentation. The preparation of briefs and the presentation of arguments. The material of this course changes every year, depending upon the subject chosen for intercollegiate debate. This course may be repeated for credit as 16a, 16b, etc. *Both semesters. Three credits each semester.* 201 Stewart Hall. Miller.

18–19. PRINCIPLES OF ARGUMENTATION. Oral discussions of economic, historical, political, and sociological questions. Weekly debates, preceded by briefs, in which each member takes part three times as principal speaker. Open to students who have completed course 16–17, and to others by special consent. *Both semesters. Two credits each semester.* 201 Stewart Hall. Miller.

21–22. EXPRESSION. Oral interpretation of the best litera-

ture. Sight reading. Exercises in vocal culture, breathing, position and gesture. *Both semesters. Two or three credits* Austin.

23–24. PLAY PRODUCTION. The presentation of the best modern plays in class, interpreted and directed by the members of the class under the supervision of the instructor. Written analysis of the best modern plays. Study of the new movement in the theater. *Both semesters. Three credits each semester.* 201 Stewart Hall. Austin.

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 papers. Discussions and laboratory work. Year course. *Prerequisite:* English 1–2. *Both semesters. Three credits each semester.* 202 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 written reports. *Prerequisite:* English 1–2. *Three sections. Both semesters. Two credits each semester.* Stewart Hall. A. E. Hill and 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.

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.* 202 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 1–2, 25–26, 44–45. *Second semester. Three credits.* 202 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 1–2, 25–26, 44–45. *First semester. Three credits.* (Not offered in 1925–1926.) 202 Education Building. Higginbotham.

58. THE FEATURE ARTICLE. The study and writing of the special feature articles for newspapers and magazines. *Prerequisite:* English 1–2, 25–26, 44–45. *Second semester. Three credits.* (Not offered in 1925–1926.) 202 Education Building. Higginbotham.

59. Intensive work in exposition, description and narration to develop familiarity with these types. *Prerequisite:* English 1–2. *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. *Prerequisite:* English 1–2, English 51. *Second semester. Three credits.* 206 Stewart Hall. A. E. Hill.

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. (Not offered in 1925–1926.) *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. (Not offered in 1925–1926.) *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 on the "Idylls of the King," and "The Ring and the Book." *Prerequisite:* English 44–45. (Not offered in 1925–1926.) *Second semester. Three credits.* 202 Stewart Hall. 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.

94. CHAUCER. The Canterbury Tales. *Prerequisite:* English 44–45. *First semester. Three credits.* 202 Stewart Hall. H. W. Hill.

101. SEMINAR FOR GRADUATES. Both semesters. Hours to be arranged with individual students. *One credit each semester.* Library. 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

Requirements for a minor in Geology: Physics 1–2 (unless Physics is offered for admission), Chemistry 1 (unless Chemistry is offered for admission), Mineralogy 1, Geology 3, 4, and six additional units in Junior-Senior courses.

Requirements for a major in Geology: Physics 1a–1b and 2a–2b, or 3–4 and 5–6, Chemistry 5 and 6, Mineralogy 1, 2, and 3, Geology 3 and 4, 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.

3. GENERAL GEOLOGY. A general discussion of geologic forces and their results, dealing chiefly with the dynamic and structural aspect of the subject. *Prerequisite:* Elementary Physics and Chemistry. *Either semester. Three credits.* Mackay School of Mines. Jones.

4. 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 special reference to the North American Continent. *Second semester. Three credits.* Mackay School of Mines. Jones.

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 3, Mineralogy 1, 2, and 3. *First semester. Two credits.* Mackay School of Mines. Jones.

52. PETROGRAPHY. The study of rock-forming minerals and rocks under the microscope. *Prerequisite:* Geology 51,

Physics 1–2 or 3–4. *Second semester. Two 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 1–2 or 3, Mineralogy 1–2. *First semester. Three credits.* Mackay School of Mines. Jones.

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 51 and 60. *Second semester. Three credits.* Mackay School of Mines. Jones.

70. Field Geology. Instruction in field methods, with actual practice in the investigation of a selected area. Five days of field work are devoted to the mapping of some area in the vicinity of the University. *Prerequisite:* Geology 1 or 3; Mineralogy 1. *Second semester. One credit.* Jones and .....

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 61. *Credits to be arranged.*

80. Geological Investigation. Original investigation of some geological problem. *Prerequisite:* Geology 1–2, or 3, 4, 51, 52, and 60, or equivalent training. *Both semesters. 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
ASSOCIATE PROFESSOR FEEMSTER
ASSISTANT PROFESSOR LEACH
ASSISTANT PROFESSOR HICKS

Requirements for a minor in History: History 1–2, 5–6, and six units chosen from advanced history courses or from 73–90 Political Science, or from both.

Requirements for a major in History: History 1–2, 5–6, and twelve units chosen from advanced history courses or from 73–90 Political Science, 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.

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 fulfilment 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.

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 fulfilment 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 Hicks.

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 Hicks.

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. *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 1925–1926.) 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.* (Given in 1926–1927.) 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. *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.* 105 Stewart Hall. Feemster.

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.* 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.)

77. THE RENAISSANCE. From the fall of Constantinople to the sack of Rome. This course aims to trace the rise of the modern spirit and institutions out of ancient and medieval world. Special lectures and assignments will be given upon such topics as painting, architecture, printing, navigation, the great men and masterpieces of the period, the foundation of modern languages and sciences. *First semester. Two credits.* 105 Stewart Hall. Feemster. (Given on sufficient demand.)

78. THE REFORMATION. A continuation of the previous course to the Peace of Westphalia, and the foundation of the present-day national state system. The course will trace in historic sequence the main movements comprising the Spanish reformation, the Papal state, the Lutheran revolt, Council of Trent, the Spanish Empire, the revolt of the Netherlands, Anglo-Dutch sea power, the Elizabethan Age, The Thirty Years' War, Westphalia, Grotius, and the foundation of international law. Special assignments will be made upon chosen topics. *Second semester. Two credits.* 105 Stewart Hall. Feemster. (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.* (Given 1926–1927.) 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 19th 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.

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.* (Given in 1926–1927.) 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.* (Given in 1926–1927.) Feemster.

99–100. HISTORY THESIS WORK. *Both semesters. Credits to be arranged.* 101 Stewart Hall. Wier.

199–200. GRADUATE THESIS. *Both semester. 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. Six 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.* (Given in 1926–1927.) 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.* (Given in 1926–1927.) Leach.

64. INTERNATIONAL LAW. An elementary study of the principal topics, accompanied by examination of leading cases. *Second semester. Three credits.* (Given in 1926–1927.) 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. A historical and comparative study of the legal systems of the oriental and classical nations. Important for legal students. *Both semesters. One, two, or three credits each semester.* 105 Stewart Hall. Feemster.

79–80. THE CONSTITUTIONS OF THE UNITED STATES AND NEVADA. For Seniors of all colleges. *Both semesters. One credit.* Given by members of the Department faculty.

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. MEDIEVAL 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.* (Given in 1926–1927.) 105 Stewart Hall. Feemster.

93–94. POLITICAL PROBLEMS. A course for intercollegiate debaters. *Prerequisite for credit:* History 1 and 2. *One-half to two credits per semester according to work done.* 105 Stewart Hall. Feemster.

99–100. THESIS.

199–200. GRADUATE THESIS. *Both semesters. Credits to be arranged.*

HOME ECONOMICS

College of Agriculture

PROFESSOR LEWIS
[1]ASSOCIATE PROFESSOR STILWELL
ASSISTANT PROFESSOR POPE
ASSISTANT PROFESSOR HAMMOND
[2]ASSISTANT PROFESSOR FOSTER

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. *Parallel:* H. E. 15a. *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, linen, wool, or silk. *Prerequisite:* H. E. 15a, b. *Second*

[1]Member of Agricultural Extension Staff.
[2]State Supervisor of Home Economics.

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. Lecture, 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. Foster. 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. *First semester. Laboratory, two periods. Two credits.* 204 Agricultural Building. Pope. Fee, $2.

46. WEAVING. Same as 45. *Second semester.*

49. ELEMENTARY MILLINERY. The making of seasonable hats from cloth, straw, and used materials. Practice in the processes involved, including design, patterns, wire frames, and blocked foundations; making and placing of trimmings, bows, folds, etc. *First semester. Laboratory, two periods. Two credits.* 108 Agricultural Building. Pope. Fee, $2.

50. ADVANCED MILLINERY. The making of hats involving more difficult problems including straw sewed without a foundation material, transparent hats, making and using flowers in trimmings; patterns copied from leading magazines and exclusive shops. *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.* Stilwell and Foster.

53. THE HOUSE. The following units will be studied: Selection of site, construction, and repair of house; lighting, plumbing, heating, and water systems; decorating, furnishing, and care of the house; making an old house convenient and attractive; the modern home and its scientific management; the college girl's, professional woman's, and family budgets; home vs. boarding; sanitary conditions of public eating places. Not open to students majoring in Home Economics. *First semester. Lecture, one period; laboratory, two periods. Two credits.* 204 Agricultural Building. Lewis. Fee, $1.

54. HEALTH. Feeding and care of the infant, child of preschool age and the school child from six to twelve; relation of income to malnutrition and child labor; hygienic habits, care of infectious diseases; corrective diets in constipation, anemia, and obesity, etc.; recreation. Not open to students majoring in Home Economics. *Prerequisite:* Home Economics 3. *Second semester. Lecture, two periods. Two credits.* 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 consist 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 22. *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. *Prerequisite:* Hygiene 7 and 8. *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 22, 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 requirements. *Prerequisite:* Home Economics 31–32, 55; Chemistry 26; Hygiene 7–8. *Parallel:* Home Economics 81–82. *Second semester. Laboratory, three periods. Three credits each semester.* 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, three periods. Three 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 intended for advanced students who wish to study some special problem, as clothing budgets, advanced principles of design and color harmony in dress, textiles, millinery, embroidery, etc. *Prerequisite:* Home Economics, 15, 16, 18, 66, or 50. *Either semester. Laboratory, two periods. Two to four credits.* 204 Agricultural Building. ..... Fee, $2.

Teacher-Training Courses in Home Economics. *See Education.*

MATHEMATICS AND MECHANICS

PROFESSOR HASEMAN

MR. SEARCY

Requirements for a minor in Mathematics: Mathematics 11, 13, 14, 25, 26.

Requirements for a major in Mathematics: Mathematics 11, 13, 14, 25, 26, 85, and seven additional units approved by the department.

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. *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.

13A[1]. 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.) *First 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 variables 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.

25A[1]. ELEMENTARY DIFFERENTIAL CALCULUS. Its application to tangents, normals, rates, maxima and minima. (College of Engineering.) *Second 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 surface, volumes, moments of inertia, centers of gravity, etc. *Second semester. Three credits.* 204 Morrill Hall. Haseman.

26A.[1] Simple forms of integration. Application of integral calculus to areas, volumes, arcs, pressures, work, center of gravity, moment of inertia, rectilinear and curvalinear motion of particles. (College of Engineering.) *First Semester. Three credits.* Haseman.

28. MATHEMATICAL THEORY OF INVESTMENTS. *Either semester. Three credits.* 204 Morrill Hall. Haseman.

[1]Practical courses to be substituted in place of the regular engineering courses by students who cannot grasp the regular course in mathematics.

30. DESCRIPTIVE ASTRONOMY. A treatment of the facts and laws of astronomy, with a study of the solar system, the stars, comets, etc. *Second semester. Three credits.* 202 Morrill Hall. Searcy.

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. (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 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 friction, work and energy, and impulse. (College of Engineering.) *Second semester. Two 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,

[1]Practical courses to be substituted in place of the regular engineering courses by students who cannot grasp the regular course in mathematics.

including also an elementary treatment of homographic systems, involutions, anharmonic ratios, and the principle of duality. *First semester. Two credits.* 202 Morrill Hall. Searey.

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.

110. Theory of Numbers. Lectures and reports. *Second semester. Three credits.* 202 Morrill Hall. Searey.

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.* Searey.

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

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, case-hardening, 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. Rocklund. 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.

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.

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.

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.

MECHANICAL ENGINEERING

College of Engineering

PROFESSOR SIBLEY
ASSOCIATE PROFESSOR LEWERS
ASSISTANT PROFESSOR KENT

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 geometry of machinery, showing the laws which govern the velocity of moving parts, the correct 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. *Prerequisite:* Mathematics, Mechanical Engineering 53 and 54. *Second semester. Three credits.* Electrical Building. Sibley.

64. MECHANICAL LABORATORY. This course is designed to familiarize the student with the general process of steam- and gas-engine testing, and to give training in accuracy and

reliability in securing data and analyzing results. The experiments involved include: A study of the auxiliary apparatus used in connection with steam and gas machinery; calibration of instruments, such as thermometers, pressure gages, indicator springs, etc.; tests of elementary transmission machinery; friction tests of steam and gas engines. Preceded or accompanied by Mechanical Engineering 54. *Laboratory, one period. One credit.* Electrical Building. Kent. Fee, $2.50.

65–66. MECHANICAL LABORATORY. This work covers the following:

(a) Tests of steam turbines and reciprocating engines for the determination of power developed, steam consumed, heat lost, and the mechanical and thermal efficiencies under different loads, steam pressures, and back pressures.

(b) Thermal efficiency tests of gas, gasoline and oil engines, automobile motors and air compressors.

(c) Steam-boiler tests for determining the evaporative efficiency of boilers of different types under conditions of ordinary use, and determination of the efficiency of steam and power pumps and steam injectors when operated under various conditions.

(d) Practice in setting slide, piston and Corliss valves by measurement and by indicator.

Preceded or accompanied by: Mechanical Engineering 55–56 and 64. *Both semesters. Laboratory, three periods. Three credits.* Electrical Building. 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.

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 prinples 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 Kent. Laboratory fee of $5 may be required.

METALLURGY

College of Engineering

PROFESSOR PALMER

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. Five credits.* Mackay School of Mines. Palmer. 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. ADVANCE 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. Palmer. 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 3. *Second semester. Two credits.* Mackay School of Mines. Palmer.

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 3. *First semester. Three credits.* Mackay School of Mines. Palmer.

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. *First semester. Lecture, one hour. Laboratory, one period. Two 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:* Meallurgy 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 71. *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. *Prerequisite:* Electrical Engineering 59 and 60, 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 taking the metallurgical option 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 designed to cover the general field of nonmetallics. There will be included in the course information on the methods of production, physical and chemical characteristics, commercial requirements and

utilization, testing and marketing. *First semester. Two credits.* Mackay School of Mines. Palmer.

80. PROJECT. This course will cover special work of a research nature in connection with some problem in ore treatment or metallurgical plant design. *Second semester. 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
FIRST SERGEANT E. E. VAUGHAN, 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. Infantry drill, rifle marksmanship; scouting and patrolling; physical training; military courtesy. 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. Map reading and military sketching; infantry weapons, to include rifle and bayonet, automatic rifle, grenades, musketry; command and leadership; duty as noncommissioned officers at drill; military hygiene, sanitation, and first aid. Required of all second-year men students. *Three hours per week. Both semesters. Two credits each semester.*

MILITARY 51–52. (Elective). Advanced Course, First Year — Practical and Theoretical. Field engineering; infantry weapons, machine guns, howitzers and light mortars; military law and rules of land warfare; command and leadership; duty as officers of cadet battalion. Required

of all third-year men taking advanced military. *Five hours per week. Both semesters. Two credits each semester.*

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. (Elective.) Advanced Course, Second Year—Practical and Theoretical. Military history; tactics of small combat units; administration of infantry company; command and leadership; duty as officers of cadet battalion. Required of all fourth-year men taking advanced military. *Five hours per week. Both semesters. Two credits each 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
MR. .....

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. Jones and..... 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. ..... Fee, $3.

51. ADVANCED MINERALOGY. Advanced work in either blowpipe analysis, crystallography, or the determination of minerals under the microscope. *Prerequisite:* Mineralogy 1, 2, and 3. *Either semester. One or two credits.* Mackay School of Mines. Jones.

MINING

College of Engineering

DIRECTOR FULTON
PROFESSOR JONES
PROFESSOR PALMER

5. PRACTICAL MINING. Practical work in mining or metallurgy during the summer vacation. Such work must extend over a period of at least ten weeks, and a satisfactory report must be prepared upon it. *Freshman vacation.* Required for graduation. *No credit.*

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. .....

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 3, 4, 5, and 6. *Junior year. Second semester. Three credits.* 100 Mackay School of Mines. .....

60. JUNIOR MINING TRIP. A trip to Nevada mining districts to study the geological, mining, and metallurgical conditions. This excursion will consume from six to eight weeks. A detailed report of observations made on the trip will be required. *Prerequisite:* Regular Junior standing. *Junior year. Second semester.* Fulton, Jones, Palmer, and ..... Required for graduation. *No credit.*

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. .....

72. ECONOMICS OF MINING. Lectures and recitations on the business, sociology, and law of mining. Mine organizations and accounts, cost of mining, wages and welfare, accidents and their prevention, mining laws of the United States and of the State of Nevada, sampling and sale of ore and other mineral products, valuation of mining properties.

Prerequisite: Mining 61. *Senior year. Second semester. Three credits.* 100 Mackay School of Mines. .....

90. MINING PROJECT. Four laboratory periods weekly devoted to individual problems in seeking, opening, and working imaginary mines supposed to be located in important mining camps. *Prerequisite:* Mining 61. *Second semester. Two credits.* 101 Mackay School of Mines. .....

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. .....

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. .....

102. THE PRECIOUS AND BASE METAL INDUSTRIES. Lectures on the business of mining base and precious metals. The occurrence, statistics, mining, milling, smelting, and marketing of copper, lead, zinc, gold, and silver discussed from the economic view-point. A graduate course open to undergraduates who are suitably prepared. *Either semester. Two credits.* 102 Mackay School of Mines. .....

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. .....

MODERN LANGUAGES

PROFESSOR CHAPPELLE
ASSOCIATE PROFESSOR MURGOTTEN
ASSISTANT PROFESSOR WILLIAMS
MR. GOTTARDI

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 credits, 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 credits, 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. However, compare note under German 13–14.)

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.

Courses 5–6 of any language must be taken simultaneously with courses 3–4 in case the student wishes to offer that language toward a major or a minor. Likewise German 13–14 must be taken simultaneously with German 11–12 if these courses are taken *before* German 3–4.

(The rules in the preceding two paragraphs may be set aside only by special permission of the faculty.)

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 specially with the head of the department.

Courses numbered above 50 are given only in alternate years; those numbered below 50 are given every year. Exceptions are indicated at the end of the announcement of the course concerned.

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. May be counted as graduate work. *Both semesters. Two credits each semester.* (Offered in 1926–1927.) Murgotten.

French

1–2. Beginning French. Drill in the essentials of grammar and the translation of simple prose texts. Composition and conversation. *Either semester. Six credits for the year. Total course only accepted toward graduation.* Chappelle and Gottardi.

3–4. Second-Year French. Selections from modern French prose writers. Conversation. *Prerequisite:* French 1–2, or two years of high-school French. *Both semesters. Two credits each semester.* Chappelle.

5–6. Elementary Prose Composition and Conversation. Review of grammar. This course is to be taken simultaneously with French 3–4. *Prerequisite:* French 1–2, or two years of high-school French. *Both semesters. One credit each semester.* Chappelle.

51–52. The French Novel. Rapid reading of masterpieces of French fiction: Balzac, Sand, Mérimée, Zola, Daudet, etc. *Prerequisite:* French 3–4. *Both semesters. Two credits each semester.* Murgotten.

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.* Chappelle.

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 5–6. *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.* (Offered in 1926–1927.)

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 5–6. *Both semesters. One credit each semester.* (Offered in 1926–1927.)

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.

German

1–2. Beginning German. A systematic study of grammar. Selected reading in easy prose and verse. Simple composition. *Both semesters. Six credits for the year. Total course only accepted toward graduation.* Murgotten.

3–4. Second-Year German. Reading of German short stories. Selections from modern lyric poetry. *Prerequisite:* German 1–2, or two years of high-school German. *Both semesters. Two credits each semester.* Murgotten.

5–6. Elementary Prose Composition. Review of grammar. This course is to be taken simultaneously with German 3–4. *Prerequisite:* German 1–2, or two years of high-school German. *Both semesters. One credit each semester.* Murgotten.

11–12. Intermediate German. Reading of easy selections from modern German novels and short stories. This course is similar to and alternates with German 3–4, differing only in the texts read. *Prerequisite:* German 1–2, or two years of high-school German. *Both semesters. Two credits each semester.* (Offered in 1926–1927.)

13–14. Prose Composition. This course is similar to and alternates with German 5–6, differing only in the texts used. *Prerequisite:* German 1–2, or two years of high-school German. *Both semesters. One credit each semester.* (Offered in 1926–1927.)

Note—Students taking German 3–4, 5–6, and also German 11–12, 13–14, may count six of the units thus obtained towards a major or a minor.

51–52. Introduction to the Classics. Reading and technical study of representative works of Schiller and Goethe. *Prerequisite:* German 3–4 or 7–8. Should be preceded by both of these courses. *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 outside readings and reports on works read. *Prerequisite:* Four credits of Junior-Senior work. *Both semesters. Two credits each semester.* (Offered in 1926–1927.)

59–60. Scientific German. Readings from standard German works on science and from recent numbers of German scientific magazines. This course is particularly recommended to candidates in chemistry as well as to those who wish to specialize in any other scientific field. *Prerequisite:* German 3–4 or 7–8. (Should be preceded by both of these courses.) *Both semesters. Two credits each semester.* Chappelle.

79–80. Advanced Composition. A study of German epistolary style including business correspondence. Free composition. *Prerequisite:* German 5–6 or 13–14. (Should be preceded by both of these courses.) *Both semesters. One credit each semester.* Murgotten.

Italian

1–2. Beginning Italian. Grammar, composition, and conversation. Reading of modern Italian prose. *Both semesters. Six credits for the year. Total course only accepted toward graduation.* Gottardi.

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.* (Offered in 1926–1927.)

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.* Chappelle.

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. Total course only accepted toward graduation.* Chappelle.

Spanish

1–2. First-Year Spanish. Elementary grammar, reading, composition, and conversation. *Both semesters. Six credits for the year. Total course only accepted towards graduation.* Gottardi and Williams.

3–4. Second-Year Spanish. Readings from modern Spanish prose works. Conversation. *Prerequisite:* Spanish 1–2, or two years of high-school Spanish. *Both semesters. Two credits each semester.* Chappelle, Murgotten, Gottardi, and Williams.

5–6. Elementary Prose Composition and Conversation. Review of grammar. This course to be taken simultaneously with Spanish 3–4. *Prerequisite:* Spanish 1–2, or two years of high-school Spanish. *Both semesters. One credit each semester.* Chappelle, Murgotten, Gottardi, and Williams.

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.

53–54. Commercial and Journalistic Spanish. Readings dealing primarily with Spanish-American social and economic conditions. Spanish commercial correspondence. *Prerequisite:* Spanish 3–4, 5–6. *Both semesters. Two credits each semester.* Williams.

55–56. Intermediate Spanish Composition and Conversation. This course should be taken with the first year of Junior-Senior reading courses in Spanish. *Prerequisite:* Spanish 5–6. *Both semesters. One credit each semester.* 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.* (Offered in 1926–1927.)

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 5–6. *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.* Murgotten.

PHILOSOPHY

PROFESSOR THOMPSON

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. First semester. Two credits.* Education Building. Thompson.

2. Introduction to Philosophy. The same as course 1 in form and content. *Second 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
MISS CHAMPLIN

Requirements of a minor in Physical Education: It is recommended that students desiring a minor in Physical Education fulfil their Freshman and Sophomore requirement in the Department of Biology. Requirement: Physiology, and, in addition to the required Freshman and Sophomore courses, Physical Education 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. About four periods during one semester will be used for practical work in First Aid, based on the lectures given to all Freshmen. *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. Corrective Gymnastics (Practice). Required instead of part of Physical Education 1–2 and 3–4 of all students who upon examination show need of it. *Four 20-minute periods a week. One 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 view-point 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. *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. Special permission to enter this section will be granted to those who have not had the equivalent of Physical Education 1–2, but who can pass a satisfactory practical examination. *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. *Three periods. Both semesters. One credit each semester.*

55. KINESIOLOGY. *Prerequisite:* Physical Education 1–2 and 3, Zoology 1 or Hygiene 7 and 8. 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. 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 ATHLETICS. *Prerequisite:* Two years participation in athletics (at least one year in college). *Two periods. One credit per semester.* Basketball, baseball, hockey, soccer, track.

63–64. PRINCIPLES OF PHYSICAL EDUCATION. Their development in relation to general education, health education, play and recreation. Under health education will be included the topics, exercise, foods, emergencies, child care, health crusaders, and problems of adolescence. Under play and recreation will be included theories of play, and community recreation, including general principles of scouting, camp-fire activities, pageantry, etc. *Two periods. Both semesters. Four credits for the year.*

Men

ASSISTANT PROFESSOR MARTIE
MR. SHAW

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, basketball, 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. One hour credit.* Not given unless eight or more are enrolled. Shaw.

52. Basketball 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. One hour credit.* The same conditions for enrollment must be met as in course 51. Martie.

54. Track and Field Athletics. Lectures and demonstrations on each track and field event. *Second semester. One lecture and one hour laboratory per week. One credit.* The same conditions for enrollment must be met as in course 51. Martie.

PHYSICS

PROFESSOR HARTMAN
ASSOCIATE PROFESSOR BLAIR
MR. 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), 3–4 and 5–6.

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), 3–4, 5–6, 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 devolop 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.

3–4. General Physics for Engineers. Mechanics and heat, sound and light, and electricity and magnetism. Lectures and recitations are fully illustrated by experimental demonstrations at the lecture table and by problems. *Prerequisite:* Mathematics 7, 11, 13, and 14, high-school Physics, or Physics 1a–2a and 1b–2b. *Both semesters. Five credits each semester.* 201 Physics Building. Hartman.

5–6. Physical Measurements. Experimental work of distinctly quantitative character is done in mechanics and heat, sound and light, and electricity and magnetism. The methods selected involve fundamental physical principles, and illustrate their most important applications. *Prerequisite:* Mathematics 7, 11, 13, and 14; Physics 1a–2a, 1b–2b or high-school Physics. *Both semesters. Two credits 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. *Second semester. Three credits. Three recitations or equivalent in lectures and observational work, depending upon weather conditions.* 201 Physics Building. Blair.

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.

53–54. General Physics for Arts and Science Students of the Senior College. Mechanics and heat, sound and light, and electricity and magnetism. Lectures and recitations are fully illustrated by experimental demonstrations at the lecture table and by problems. *Prerequisite:* Mathematics 7, 13, and 14, high-school Physics, or Physics 1a–2a and 1b–2b. *Both semesters. Five credits each semester.* 201 Physics Building. Hartman.

55–56. Physical Measurements. Experimental work of distinctly quantitative character is done in mechanics and heat, sound and light, and electricity and magnetism. The methods selected involve fundamental physical principles,

and illustrate their most important application. *Prerequisite:* Mathematics 7, 13, and 14, Physics 1a–2a and 1b–2b, or high-school Physics. *Both semesters. Two credits each semester.* 103 and 109 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 3–4 and 5–6. *Either semester. One or two credits per semester.* 103, 109, and 201 Physics Building. Hartman and Blair. 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 3–4 and 5–6; 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 3–4 and 5–6; 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 Building. 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 3–4, and 5–6. *Both semesters. One credit.* 201 Physics Building. Hartman.

67. DISCHARGE OF ELECTRICITY THROUGH GASES. *Prerequisite:* Physics 1a–2a, 1b–2b, or 3–4. *First semester. Two credits.* 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 3–4 and 5–6, and Mathematics 14, 25, and 26. *Second semester. Two credits.* 201 Physics Building. Hartman.

101–102. MATHEMATICAL PHYSICS. An introduction to the more advanced mathematical analysis as applied to general physical problems. *Prerequisite:* Physics 3–4, 5–6, 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

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. *Second semester. One lecture, one laboratory. Two credits.* 105 Agricultural Building. Scott. Fee, $2.

PSYCHOLOGY

PROFESSOR YOUNG

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.

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. Three 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 the management of men are based. Alternate years. (Given in 1925–1926.) *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. Alternate years. (Given in 1925–1926.) *Second semester. Three credits.* Education Building.

63. ADVANCED PSYCHOLOGY. An intensive study of selected problems. Lectures, readings and a term paper. *Prerequisite:* Psychology 5. (Given in 1925–1926.) *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.

VETERINARY SCIENCE

College of Agriculture

54. VETERINARY SCIENCE. A combination lecture and laboratory course covering dentition of farm animals and age determination, unsoundness, etc.; obstetrics; the more common ailments, their prevention and handling; wounds and their treatment; common drugs and their administration. *Prerequisite:* Zoology 1, Hygiene 53, and Zoology 51 of all students, and Bacteriology 51 of all students in Animal Husbandry–Dairying Division. *First semester. Lectures, three hours; Laboratory, two periods. Five credits.* 101 Hatch Hall.

55. VETERINARY SCIENCE. A lecture course covering the more common infectious diseases of animals and methods of combatting same. *Prerequisite:* Bacteriology 51, Veterinary Science 54. *Second semester. Two credits.* 101 Hatch Hall.

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.
[1]F. L. Bixby, C.E., Bureau of Public Roads, Irrigation Div., U.S.D.A.
George Hardman, M.S., Assistant Agronomist.
Charles E. Fleming, B.S.A., Range Management.
Edward Records, V.M.D., Veterinarian.
Lyman R. Vawter, D.V.M., Pathologist.
M. R. Miller, B.S., Chemist.
Mary McGee, Secretary to Veterinary Department.
Mrs. Martha Bruce, Librarian and Secretary to Director.

Under the 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, and from the Adams Fund, created by the Adams Act of 1906, it receives a like amount. Neither fund can be applied to teaching or to the work of Agricultural Extension, because the object of both funds is the investigation by scientific methods of problems in the agricultural industry.

The Nevada Experiment Station has chosen problems for study in three 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.

For 1924–1925 the active project list of the Station is as follows:

Irrigation— HATCH FUND

29. Duty-of-Water Studies in Southern Nevada, 1922–Continuous. Project Leader, F. L. Bixby.

Entomology—

5. Insects Injurious to Alfalfa. 1916–Continuous. Project Leader, S. B. Doten.

[1]U. S. Department of Agriculture cooperating.

Range Management—

24. Methods of Increasing the Percentage of Lambs in Nevada Flocks, 1919–1921. 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.

Veterinary Science— ADAMS FUND

16. Hemorrhagic Disease in Cattle. 1914–Continuous. Project Leader, Dr. Edward Records.

Range Management—

22. Poisonous Range Plants. 1916 (Hatch). 1918–Continuous. (Consolidating Project 6, Hatch, and Project 14, Adams.) Project Leader, C. E. Fleming. Assisted by M. R. Miller and Dr. L. R. Vawter.

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.
Robert G. Foster, B.S., Assistant Director.
Mary E. Stilwell, B.S., Assistant Director.
Verner E. Scott, B.S., Dairy and Poultry Specialist.
Thomas R. King, B.S., Extension Agent, Eureka, Lander, and White Pine Counties.
Albert J. Reed, B.S., Extension Agent, Churchill and Pershing Counties.
John H. Wittwer, B.S., Extension Agent, Clark County.
Lassie Lane, B.S., Extension Agent, Lyon and Pershing Counties.
Ellen Le Noir, B.S., Extension Agent, Clark, Lincoln, and White Pine Counties.
Chester A. Brennen, B.A., Extension Agent, Elko County.
Clarence E. Jones, B.S., Assistant Extension Agent, Elko County.
Flora E. McElhinney, B.S., Extension Agent, Elko County.
Joseph W. Wilson, B.S., Extension Agent, Humboldt County.
Edward C. Reed, B.S., Extension Agent, Lyon County.
Thomas Buckman, B.S., Extension Agent, Washoe County.
Hazel Zimmerman, B.S., Extension Agent, Washoe County.

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 outlined in written projects and budget annually entered into by the cooperating parties. There are five major project divisions, as follows: Live Stock, Farm and Range, Farm and Community, Economics, Home and Community Welfare, and Sanitation and Hygiene.

The organization for Extension work in Nevada comprises an administrative and special staff, resident at the University; the Nevada State Farm Bureau, and a County Farm Bureau in each county, organized pursuant to the Nevada Farm Bureau Act, approved April 1, 1919, as amended March 4, 1921, and the cooperative employment in each county so organized of one or more Extension Agents. The State Farm Bureau and each County Farm Bureau are incorporated as quasi-public corporations; annually elect a board of directors; adopt, with the approval of the Extension Division, an annual budget and program for Extension work, and are in immediate charge of the work, subject to the terms of such programs of work.

The State Analytical Laboratory

Staff

Walter E. Clark, Ph.D., LL.D., President of the University.
Walter S. Palmer, E.M., Director and Metallurgist.
J Claude Jones, Ph.D., Geologist and 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 analyses and mineral determinations are made by the analyst. Unusual rocks and minerals are determined by the geologist and mineralogist, while the special tests are made by the metallurgist. 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 State Analytical Laboratory is open from 8 to 12 a. m. and 1 to 5 p. m. daily, with the exception of Saturday afternoons and Sundays. 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, M.D., Director.
Virginia de Bell, A.B., Assistant Bacteriologist.
Edna Bonner, 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, gonorrhea, 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 submitted in unsterile bottles and not packed in ice are unsatisfactory. 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.

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.
Zelda Reed, 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.
Mildred Klaus, 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.
N. E. Neilsen, M.D.C., Veterinary Inspector.
Mary McGee, 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.

United States Bureau of Mines Experiment Station

Staff

Edmund S. Leaver, Met.E., Superintendent and Metallurgist.
L. J. Shaw, Ph.D., Chemist.
H. A. Doerner, B.S., Assistant Chemist.
Charles W. Davis, B.S., Assistant Chemist.
J. A. Woolf, B.S., Junior Metallurgist.
E. E. Fairbanks, Junior Mineralogist.
H. M. Lawrence, B.S., Associate Metallurgist.
Carl E. Wood, 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, 1925

JUNE 15 TO JULY 24

The thirteenth annual Summer Session of the University of Nevada will begin Monday, June 15, 1925, and will continue through Friday, July 24, the session covering six weeks.

This summer 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 13, 1925.

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 14. 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 except upon evidence of special ability approved 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 is offered especially for prospective teachers of commercial subjects, and for others who had the approval of the instructor.

The following courses receive normal-school credit: Art Sm. 1; Education Sm. 23, Sm. 25, Sm. 48; English Sm. 1; Hygiene Sm. 4; Music Sm. 1, and Sm. 5, or Sm. 10; Nature Study Sm. 1; and Psychology Sm. 5 and Sm. 8.

The following courses receive normal-school credit and certificate credit if Education Sm. 25 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. 1 and Sm. 41; Spanish Sm. 1–2, and Political Science Sm. 79.

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. More care than ever before 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 for observation within those limits. The school will consist of two rooms, with three grades each. The enrollment for each room will be limited to twenty children.

Effective methods of management, of selection and organization of subject-matter, and methods of teaching with three-class groups of children will be demonstrated by very competent teachers. Observers will receive many valuable ideas for their next year's work in any type of school.

Observation, Education Sm. 25, may be taken for one credit in addition to the six regularly allowed, and may be taken for credit by students who have already had one credit. Observation is required of all who expect certificate or normal-school credit for any of the method courses. For students already having two credits in observation it is required without credit, as an essential part of each method course. Desultory observation is not considered particularly valuable, and will be discouraged.

TEACHERS FROM OTHER STATES

Progressive teachers from other States are always welcomed by Nevada to positions for which they show superior qualifications if they can present a license from their own State to teach in the same grade of schools in which they seek appointment here. The State Board of Education is, however, quite insistent that these candidates should show that familiarity with Nevada conditions which is indispensable to their success in this school system. The acquaintance which is thus desired can be most easily established by attendance at the University Summer Session.

EXPENSES

Registration fee	$10.00
Registration in Demonstration School	3.00
Rooms for women, Manzanita Hall	10.00
Deposit for breakage	5.00
[1]Board in University Dining-Hall, per week	7.00
Text-books	5.00–10.00
Art materials	2.50
Excursions	5.00–10.00

[1]There will be no rebate at all unless arranged with the director of the dining-hall in advance.

ADVANCE RESERVATIONS

Each prospective student who desires to have room and board on the University campus is advised to make early reservation by application to the University Comptroller, accompanied by the sum of $10 room-rent for the season. This sum will be returned in full if due notification is received of desire to cancel reservation on or before registration day, June 15.

REGISTRATION

It is important that students study the announcement of courses, consult the time schedule on page 13, and arrange to attend the classes selected at their first meeting.

No student may register for more than six credits, exclusive of Observation, Education Sm. 25, without the permission of the Director.

ASSEMBLIES

Assemblies devoted to addresses and programs of special interest will be held from time to time during the Summer Session.

EXCURSIONS AND RECREATION

The emphasis in the Summer Session will be placed upon study, yet there will be ample opportunities provided for excursions and other forms of recreation. Points of interest in and around Reno are the Nevada Historical Museum, the Nevada Packing Company, Lake Tahoe, Steamboat Springs, Bowers Mansion, Pyramid Lake, Virginia City, and Carson City, with their interesting associations. The faculty will cooperate in every way possible to organize trips for those groups of students who may wish to visit any of these places. 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 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.
ALBERT E. HILL, B.A., Professor of English.
JAMES R. YOUNG, Ph.D., Professor of Psychology.
PHILIP A. LEHENBAUER, Ph.D., Professor of Biology.
FRANCIS C. MURGOTTEN, Ph.D., Associate Professor of Modern Languages.
G. H. ANDERSON, Vice-Principal Elko County High School.
JO EVELYN HODGES, B.S., Instructor in Education.
MRS. LUCIE MAYER, Matron of Manzanita Hall.

Special Summer Session Staff

MERRILL J. BURR, Deputy Superintendent of Public Instruction in Nevada.
GLADYS DEE ERVIN, Teacher in Cincinnati Public Schools.
ANNE RAYMOND, Principal, Cragmont Elementary School, Berkeley.
MRS. DRUCIE CRASE, Teacher in University of California Elementary School.
E. OTIS VAUGHAN, Principal Reno High School.
M. P. SHERMAN, Teacher, Armijo Union High School, Fairfield, California.

Lecturers

Dr. WALTER E. CLARK, President of the University of Nevada.
Mr. W. J. HUNTING, State Superintendent of Public Instruction, and others.

COURSES OFFERED

Art

Sm. 1. ELEMENTARY ART. Vitalizing art instruction through correlation with Language, Reading, History, and Literature. A study of materials, mediums, and subjects by means of specific problems. *One hour daily.* One additional period of supervised outside study. *Required for two-year Normal diploma. One credit.* Materials for this course will cost about $2.50. 203 Education Building. Ervin.

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.* 209 Agriculture Building. Lehenbauer.

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.* 209 Agriculture Building. Lehenbauer.

Commercial Courses

The following courses are offered this year as particularly helpful 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 principals of bookkeeping intended for teachers in the elementary schools and for prospective commercial teachers wishing an introduction to bookkeeping. Certificate credit but no college credit. Room 202 Education Building. Sherman.

Penmanship

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. CC. 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 selec-

tion, organization, and presentation of subject-matter to children of the first six grades. *Two credits.* 209 Education Building. Hall.

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. 25 is carried at the same time. *Two credits.* 204 Education Building. Burr.

Sm. 25. 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 25, Sm. 25, or Sm. 26 may take Sm. 25 for an additional credit. *One credit.* 209 Education Building. Hodges, 8:40; Hall, 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. 25 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. 25 is carried at the same time. *Required for two-year Normal diploma. Two credits.* 209 Education Building. Hodges.

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. 25 is carried at the same time. *Required for two-year Normal diploma. Two credits.* 211 Education Building. Vaughn.

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. 25 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. Hodges.

English

Sm. 2. COMPOSITION AND RHETORIC. The study of English as a means of self-expression and self-development. There will be written work, analysis of examples of good writing, and discussion of grammatical questions. *Required for two-year Normal diploma. Two Credits.* 200 Education Building. Hill. (Sm. 1 will be given in 1926.)

Sm. 41. MASTERPIECES OF ENGLISH LITERATURE. The reading and study of the more important specimens of English literature. Lectures, assigned readings, and oral and written reports. *Prerequisite:* English 1–2. *Two credits.* 200 Education Building. Hill. (Sm. 42 will be given in 1926.)

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. Text-book: Webster, "World History." *Two credits.* 103 Education Building. Anderson.

Political Science Sm. 79. 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.* 103 Education Building. Anderson.

Modern Languages

Sm. 1–2. First-Year French. Drill in the essentials of grammar. Reading of simple texts. Elementary conversation and composition. *Four credits.* (Given in 1926.)

Sm. 1–2. First-Year Spanish. Drill in the essentials of grammar. Translations. Elementary conversation and composition. *Four credits.* 207 Education Building. Murgotten.

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. Ervin.

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. Ervin.

OR

Sm. 10. Music Appreciation. A thorough study of music literature as to form; historical significance; melody and harmony; types of piano music; of chamber and orchestral music; and of vocal music. A variety of musical illustrations offered through the use of the talking machine. Open to all students. *Two credits.* 204 Education Building. Ervin.

Note—Either Sm. 5 or Sm. 10 will be given, depending upon the demand.

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. Young.

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. Young.

SCHEDULE OF CLASSES

Summer Session, 1925

7 : 45—

Spanish Sm. 1–2 ..... Room 207, Murgotten
Education Sm. 31 ..... Room 211, Vaughn
Bookkeeping Sm. BB ..... Room 202, Sherman
History Sm. 5 ..... Room 103, Anderson
English Sm. 41 ..... Room 200, Hill

8 : 40—

Demonstration School ..... Room 105, Raymond ; 104, Crase
Education Sm. 25 ..... Room 209, Hodges
Education Sm. 37 ..... Room 211, Vaughn
English Sm. 2 ..... Room 200, Hill
Spanish Sm. 1–2 ..... Room 207, Murgotten

9 : 35—

Demonstration School ..... Room 105, Raymond ; 104, Crase
Education Sm. 42 ..... Room 204, Burr
Education Sm. 48 ..... Room 207, Hodges
Education Sm. 25 ..... Room 209, Hall
Stenography, Typewriting ..... Room 200, Sherman

10 : 30—

Demonstration School ..... Room 105, Raymond ; 104, Crase
Education Sm. 20 ..... Room 209, Hall
Education Sm. 23 ..... Room 204, Burr
Hygiene Sm. 4 ..... Room 210, Agriculture Building, Lehenbauer
Psychology Sm. 8 ..... Room 211, Young

11 : 25—

Education Sm. 34 ..... Room 209, Hodges
Music Sm. 1 ..... Room 204, Ervin
Nature Study Sm. 1 ..... Room 210, Agriculture Building, Lehenbauer
Political Science Sm. 79 ..... Room 103, Anderson
Penmanship ..... Room 202, Sherman
Psychology Sm. 5 ..... Room 211, Young

1 : 30—

Music Sm. 5 or Sm. 10 ..... Room 204, Ervin

2 : 25—

Art Sm. 1 ..... Room 203, Ervin

WINNERS OF SCHOLARSHIPS AND HONORS, 1924

ROLL OF DEGREES GRANTED, 1924

ENROLLMENT SUMMARY FOR 1924–1925

ROSTER OF STUDENTS—August, 1924–May, 1925

RECIPIENTS OF SCHOLARSHIPS AND HONORS
1924

The five REGENTS' SCHOLARSHIPS of $50 each for excellence in scholarship, awarded to

Alice Norcross — Florence Billinghurst
Leota Maestretti — Lawton Kline
Gilberta Turner

The ELLA SPRENGLE STUBBS SCHOLARSHIP of $100, awarded to
Clinton A. Smith

The ALICE G. CLARK SCHOLARSHIP of $250, given by W. A. Clark, Jr., of Los Angeles, awarded to
Marjorie Ohman

The UNIVERSITY ASSOCIATED WOMEN STUDENTS' SCHOLARSHIP of $25, awarded to
Grace Muran

The J. H. CLEMONS SCHOLARSHIP of $50, awarded to
Robert M. Clawson

The HOME ECONOMICS SCHOLARSHIP of $100, awarded to
Eleanor Mollart

The LEWIS D. FOLSOM SCHOLARSHIP of $100, awarded to
Lloyd Smith

The ROSE SIGLER MATHEWS SCHOLARSHIPS one of $100, awarded to Erma Jones; one of $200 to Lawrence Matthews

The RENO BRANCH OF THE NATIONAL ASSOCIATION OF UNIVERSITY WOMEN SCHOLARSHIP of $200, awarded to
Claire Williams

The RENO LODGE OF ELKS SCHOLARSHIPS of $200 each, awarded to

Clyde Balaam — Ernest J. Carlson
Leslie Harrison — Albert L. Lowry

The RENO LODGE OF ELKS MEMBERSHIP SCHOLARSHIPS with remission of all lodge fees and dues until after graduation, awarded to

Harold Hughes — Paul Harwood
Herbert Foster — Chester Scranton

Honor Roll of those students whose names appeared on this roll both semesters of the year 1923–1924:

GRADUATE

Eunice Miller

SENIORS

Lucile Blake — Paul Harwood
Thelma Davis — Edward Min
Richard Hardin — Sidney Robinson
Nevada Semenza

JUNIORS

Robert Clawson — Leota Maestretti
Dorothy Crandall — Alice Norcross
Everett Harris — Dorothy Whitney

SOPHOMORES

Elizabeth Barndt — Lawton B. Kline
Gilberta Turner — Rena Semenza
Lawrence Winship

FRESHMEN

Florence Billinghurst — Grace Muran
Margaret Hill — Eleanor Curieux
Cruz Venstrom (Special)

The PHILO S. BENNETT PRIZE of $50 awarded for the best essay on "The Principles of Free Government," to
William H. Anderson

The ADOLPHUS LEIGH FITZGERALD SCHOLARSHIPS of $150 each, awarded to

Ernest Clays — Thelma Pray

The MARYE WILLIAMS BUTLER SCHOLARSHIP, income from a trust fund, amounting to $50.
No award this year

The WOMEN'S ATHLETIC SCHOLARSHIPS of $50 each, awarded to

Ruth Gunter — Sylvia Genasci

The AZRO E. CHENEY SCHOLARSHIP income from a $5,000 trust fund, amounting to $300, awarded to
Elizabeth Barndt

The GENERAL O. M. MITCHELL WOMAN'S RELIEF CORPS MILITARY SCHOLARSHIP of $100, awarded to
Ernest S. Brown

The ROBERT LEWERS SCHOLARSHIPS of $150 each, awarded to

Margaret Hill — Cruz Venstrom

The ROBERT E. TALLY SCHOLARSHIP of $100, awarded to
Frank Keesling

The HENRY ALBERT SENIOR PUBLIC SERVICE PRIZE of $25, awarded to
Harold Hughes

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:

Nevada Semenza

Seniors elected to the National Honor Fraternity of the PHI KAPPA PHI, election being based on scholarship:

Lyndel Dorcas Adams
Justine Badt
Edgar T. Boardman
Louise Grubnau
Richard A. Hardin
Paul Atkins Harwood
Edward H. S. Min
Robert Austin Plaus
Helen Martha Robison
Sidney William Robinson
Nevada Semenza

GRADUATES

Diplomas and Degrees were awarded on Commencement Day, May 28, 1924, as follows:

MASTER OF SCIENCE IN CHEMISTRY
Ruth Anna Billinghurst

MASTER OF ARTS
Eunice Miller

CIVIL ENGINEER
Glenn F. Engle

BACHELOR OF ARTS

Lyndel Dorcas Adams
Everett Eugene Aine
Eunice Isabelle Allen
Leona B. Bergman (January 16, 1924)
Luethel Austin (January 16, 1924)
Justine Badt
Dorothy Locke Boardman
Marie Campbell
Harry Sutro Clinton
Alexander G. Cotter
Mrs. Thelma Davis
Erma D. Eason
Theodore Grant Elges
Zosimo F. Fabella
LeRoy Dryden Fothergill
Jessie Jane Gibson
Cecil H. Green
Louise Grubnau
Marie C. Grubnau
Richard A. Hardin
Eloise Harris
Paul Atkins Harwood
Alexander D. Henderson
George H. Hobbs
Melbourne Grant Irving
Noah Johnson
Daniel Harold Hughes
James Bernard Koehler
Marion Lothrop (January 16, 1924)
Verda Leone Luce
Janet Howe Marshall
Bonita Elizabeth Miles
Edward H. S. Min
Ogden Francis Monahan
Kathleen Ellen Murphy
M. Harlow North
Jane Beatrice O'Sullivan
Evelyn Mildred Pedroli
Peter J. Perry (January 16, 1924)
Eunice Peters
Jack Pike (January 16, 1924)
Herbert Carl Reimer
Sidney William Robinson
Helen Martha Robison
Chester M. Scranton
Nevada Semenza
Vera L. Smith
Vera Green Soderstrom
Bertha Mae Standfast
Chris H. Sheerin
Ruel J. Taylor
Vesta Holbrook Watson (January 16, 1924)
Robert O. Weede

BACHELOR OF SCIENCE

William W. Bent
Sara Lewis Bloomfield
George F. Duborg
(January 16, 1924)
Herbert E. Foster
Laurence Larkin Quill
Helen Frances Watkins

BACHELOR OF SCIENCE IN MINING ENGINEERING

Paul J. Sirkegian
Lloyd DeVigny Skinner
(As of 1906)

BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING

Charles Lewis Boyd
Arthur Templeton Harrison
Ennis Francis Kinsella
Murdock McLeod
Frank Floyd Moffitt
Eric Conrad Otto
Robert Austin Plaus
Arthur J. Shaver
Harold Jasper Sorenson
Raymond B. Taylor
(January 16, 1924)

BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING

Leslie McMahon Sanford

BACHELOR OF SCIENCE IN CIVIL ENGINEERING

Edgar Thurston Boardman
Basil Webb Crowley
Elbert D. Curtis
John Hulbert Horn
Lewis Merle Hardy
(January 16, 1924)

BACHELOR OF SCIENCE IN AGRICULTURE

Charles H. Hardy
(January 16, 1924)
Daniel Clark Simpson
(January 16, 1924)
Louis Titus

BACHELOR OF SCIENCE IN HOME ECONOMICS

Frances Heward Westervelt

TEACHER'S DIPLOMA OF HIGH SCHOOL GRADE

Lyndel Dorcas Adams
Eunice Isabelle Allen
Leona B. Bergman
(January 16, 1924)
Sara Lewis Bloomfield
Marie Campbell
Mrs. Thelma Davis
Erma D. Eason
Herbert E. Foster
Jessie Jane Gibson
Cecil H. Green
Marie C. Grubnau
Richard A. Hardin
Verda Leone Luce
Janet Howe Marshall
Jane Beatrice O'Sullivan
Marguerite Patterson
Evelyn Mildred Pedroli
Eunice Peters
Laurence Larkin Quill
Helen Martha Robison
Chester M. Scranton
Nevada Semenza
Vera L. Smith
Vera Green Soderstrom
Bertha Mae Standfast

Eloise Harris
Noah Johnson
Marion Lothrop
(January 16, 1924)
Helen Frances Watkins
Vesta Holbrook Watson
(January 16, 1924)
Robert O. Weede
Frances Heward Westervelt

TWO-YEAR NORMAL DIPLOMA

Margery Elaine Baker
Florence L. Brown
Marie Christine Davis
Bernice Mathews
Mary Ella McGinness

ENROLLMENT SUMMARY

College of Arts and Science

Seniors	62	
Juniors	111	
Sophomores	117	
Freshmen	223	
Graduate	31	
Unclassified	22	
Specials	28	
		594

Normal School

Seniors	1	
Sophomores	12	
Freshmen	26	
Specials	2	
		41

Mackay School of Mines— College of Engineering

Seniors	8	
Juniors	7	
Sophomores	5	
Freshmen	17	
Specials	4	
		41

School of Mechanical Engineering—

Seniors	8	
Juniors	5	
Sophomores	11	
Freshmen	8	
Specials	3	
		35

School of Civil Engineering—

Seniors	8	
Juniors	10	
Sophomores	5	
Freshmen	10	
Specials	3	
		36

School of Electrical Engineering—

Seniors	14	
Juniors	16	
Sophomores	19	
Freshmen	45	
Unclassified	1	
Specials	4	
		99

School of Agriculture— College of Agriculture

Seniors	7	
Juniors	4	
Sophomores	4	
Freshmen	15	
Graduate	1	
Specials	2	
		33

School of Home Economics—

Seniors	13	
Juniors	5	
Sophomores	9	
Freshmen	17	
Specials	3	
		47

Total University		926
Enrollment of Men	573	
Enrollment of Women	353	
Total Summer School, 1924		141
Total Veterans' Bureau Summer School, 1924		22
		1089
Less names counted twice		9
Grand Total Enrollment		1080

ROSTER OF STUDENTS

GRADUATE

Ruth Anna Billinghurst	Arts and Science	Reno
Ruth Crane Briggs	Arts and Science	Reno
Lenora Carpenter	Arts and Science	Reno
Genevieve Chatfield	Arts and Science	Reno
Charles W. Davis	Arts and Science	Reno
Mrs. Adelaide Durkee	Arts and Science	Reno
Lillian Esden	Arts and Science	Reno
Zosimo Fabella	Arts and Science	Philippine Islands
LeRoy D. Fothergill	Arts and Science	Carson City
John R. Gottardi	Arts and Science	Reno
Mrs. Louise K. Hammond	Arts and Science	Reno
Scott B. Harrington	Agriculture	Reno
Alice A. Harwood	Arts and Science	Reno
Mrs. C. H. Kent	Arts and Science	Reno
Joseph D. Layman	Arts and Science	Reno
Clara Lindsey	Arts and Science	Reno
Echo L. Loder	Arts and Science	Reno
Mrs. Anna F. Loomis	Arts and Science	Reno
Mrs. Catherine H. Luke	Arts and Science	Reno
Georgia A. MacNair	Arts and Science	Reno
Meridith R. Miller	Arts and Science	Reno
Mrs. C. H. Moore	Arts and Science	Reno
Mrs. Chester Paterson	Arts and Science	Reno
Mrs. Blanche Preston	Arts and Science	Reno
Laurence L. Quill	Arts and Science	Carson City
Mrs. A. J. Shaver	Arts and Science	Reno
Alwine Sielaff	Arts and Science	Reno
Edwin C. Streng	Arts and Science	Reno
Ralph Warren	Arts and Science	Reno
Edwin E. Williams	Arts and Science	Reno
John W. Wright	Arts and Science	Reno
Anthony Zeni	Arts and Science	Reno

SENIORS

Eleanor Ahlers	Arts and Science	Reno
Bernard Aikin	Arts and Science	Reno
Bertha V. Akin	Home Economics	Carson City
Marion M. Bangham	Normal	Susanville, Calif.

Lucile M. Blake	Arts and Science	Virginia City
Ruth E. Bunker	Arts and Science	Alturas, Calif.
Woodbury L. Bunnell	Arts and Science	Berkeley, Calif.
John F. Cahlan	Arts and Science	Reno
Charles E. Card	Electrical Engineering	New Mexico
Ernest J. Carlson	Civil Engineering	Arcata, Calif.
Gregory P. Chekalin	Civil Engineering	China
Joseph D. Cieri	Arts and Science	Reno
Robert Marion Clawson	Agriculture	Reno
Marcella A. Coates	Home Economics	Sparks
Ashton R. Codd	Civil Engineering	Reno
Robert T. Conroy	Mechanical Engineering	San Francisco
Mary V. Cox	Home Economics	Yerington
Dorothy A. Crandall	Arts and Science	Reno
Mrs. Gladys Crosby	Arts and Science	Sparks
George A. Cunningham	Arts and Science	Reno
Perl A. Decker	Arts and Science	East Ely
Gee K. Ding	Mines	Fresno, Calif.
Edward J. Dollard	Arts and Science	San Francisco
Albert T. Donnels	Electrical Engineering	Reno
Gladys M. Douglass	Home Economics	Tonopah
Harold H. Downey	Arts and Science	Sparks
Clara E. Doyle	Arts and Science	Ely
Helen E. Duffy	Arts and Science	Goldfield
Harold F. Dwyer	Mechanical Engineering	San Francisco
Lois Eaton	Arts and Science	Reno
Dwight W. Edwards	Civil Engineering	Carson City
Willie S. Eiland	Arts and Science	Midland, Texas
George S. Fairbrother	Electrical Engineering	Dyer
William P. Fong	Mines	China
Gerald Fowble	Electrical Engineering	Los Angeles
Forrest F. Frost	Electrical Engineering	Reno
Freda G. Fuetsch	Arts and Science	Tonopah
John M. Fulton	Arts and Science	Reno
Lewis Gridley	Arts and Science	Reno
Margaret M. Griffin	Home Economics	Tonopah
Helen M. Halley	Arts and Science	Reno
Elizabeth L. Hanchett	Arts and Science	Virginia City
Harold H. Hansen	Arts and Science	Mendocino, Calif.
Everett W. Harris	Electrical Engineering	Reno
Isabel C. Hayes	Home Economics	Bridgeport, Calif.
Ira A. Herbert	Mines	Merced, Calif.
Charles D. Hicks	Electrical Engineering	Reno

Raymond S. Holtzman	Arts and Science	Ely
Thelma B. Hopper	Arts and Science	Hawaii
Raymond L. Huffman	Civil Engineering	Fresno, Calif.
Harold C. Johnson	Electrical Engineering	Reno
Nevada Johnson	Home Economics	Eureka
Barney H. Keating	Mechanical Engineering	Reno
Frank M. Keesling	Mines	Riverside, Calif.
Vivian Kensinger	Arts and Science	Palms, Calif.
John R. Lar Rieu	Arts and Science	Oakland, Calif.
Willadma L. Lee	Arts and Science	Carson City
Hans Lohse	Arts and Science	Fallon
Albert M. Lowry	Agriculture	Winnemucca
Fern M. Lowry	Arts and Science	Winnemucca
Leota Maestretti	Arts and Science	Reno
Paul L. Maloney	Agriculture	Albion, Tenn.
Ruth L. Manson	Arts and Science	Reno
Walker G. Matheson	Arts and Science	Japan
Lawrence E. Mathews	Electrical Engineering	Reno
Charles K. McClelland	Civil Eng.	San Luis Obispo, Calif.
John J. McElroy	Agriculture	Biggs, Calif.
Archie B. McEwing	Arts and Science	Watsonville, Calif.
Merle Mensinger	Mines	Modesto, Calif.
Frances D. Miller	Arts and Science	Alturas, Calif.
William W. Mitchell	Arts and Science	San Luis Obispo, Cal.
Eleanor D. Mollart	Home Economics	Ludwig
Thomas P. Mullan	Arts and Science	San Francisco
Margaret E. Murphy	Arts and Science	Reno
Horace R. Nelson	Arts and Science	Reno
Alice L. Norcross	Arts and Science	Reno
Edgar M. Norton	Arts and Science	Reno
Alfred A. Oats	Agriculture	Fallon
John B. Ocheltree	Arts and Science	Reno
Marjorie Ohman	Home Economics	Reno
Embert Osland	Mines	Chicago, Ill.
Michael J. Palashoff	Mechanical Engineering	China
Ada Patteson	Home Economics	Yerington
Ethel C. Perkins	Arts and Science	Ft. Bragg, Calif.
Anne B. Porter	Arts and Science	Reno
George R. Prescott	Agriculture	Reno
Lloyd S. Richards	Civil Engineering	San Jose, Calif.
Ethelbert A. Robb	Arts and Science	Tonopah
Donald A. Robison	Arts and Science	Sparks
Edward C. Rossez	Electrical Engineering	Fresno, Calif.

Murl R. Schrock	Mines	Modesto, Calif.
William P. Schuler	Mech. Engineering	Petaluma, Calif.
Jay Schumacher	Mech. Engineering	Sunnyvale, Calif.
James E. Scott	Arts and Science	Oakland, Calif.
Lawrence J. Semenza	Arts and Science	Reno
Neil B. Shaber	Electrical Engineering	Sparks
Eleanor A. Siebert	Arts and Science	Reno
James F. Skene	Arts and Science	Reno
Nellie M. Sloan	Home Economics	Tonopah
Willard P. Smiley	Civil Engineering	Richmond, Calif.
Mrs. Arvine B. Smith	Home Economics	Sparks
Clinton A. Smith	Electrical Engineering	Carlin
Lloyd P. Smith	Electrical Engineering	Reno
Anna Maud Stern	Arts and Science	Carson City
Dorothy A. Sullivan	Arts and Science	Virginia City
William T. Thomas	Mechanical Engineering	Reno
William J. Thompson	Mechanical Engineering	Elko
Clarence J. Thornton	Agriculture	Yerington
Mrs. Anna York Vierra	Home Economics	Reno
Louis G. Vierra	Mines	Moss Landing, Calif.
Carl B. Wahlund	Electrical Engineering	Elko
Earle Walther	Arts and Science	Winnemucca
Herman J. Walther	Arts and Science	Richmond, Calif.
Marjorie Webb	Arts and Science	Reno
Eleanor Westervelt	Arts and Science	Winnemucca
Dorothy M. Whitney	Arts and Science	Fallon
Claire M. Williams	Arts and Science	Fallon
Leonard H. Winer	Arts and Science	Reno
Adabel M. Wogan	Arts and Science	Sparks
Ray H. Wunderlich	Arts and Science	Stockton, Calif.
Fred M. Wyckoff	Arts and Science	Reno

JUNIORS

John Agrusa	Arts and Science	Oakland, Calif.
William H. Anderson	Arts and Science	Reno
James Chester Atcheson	Electrical Engineering	Reno
Jasper C. Atkinson	Arts and Science	Fairfield, Ill.
Lawrence C. Baker	Arts and Science	Sparks
Sherman R. Baldwin	Elec. Engineering	Alturas, Calif.
Elizabeth M. Barndt	Arts and Science	Hot Creek
Paul H. Barnes	Arts and Science	Winters, Calif.
Florence M. Benoit	Arts and Science	Grass Valley, Calif.
Stephen L. Berdalis	Arts and Science	Greece

Frank M. Blasingame	Arts and Science	Fresno, Calif.
Wilma L. Blattner	Arts and Science	Winnemucca
John R. Bonner	Elec. Engineering	Alturas, Calif.
Louis H. Bratmon	Mechanical Eng.	Los Angeles, Calif.
Alson P. Brizard	Arts and Science	Reno
Brousse Brizard	Arts and Science	Reno
Ernest S. Brown	Arts and Science	Reno
Richard F. Brown	Mines	Hollister, Calif.
Roscoe I. Brown	Arts and Science	Stockton, Calif.
Owen M. Broyles	Mechanical Eng.	Battle Mountain
Mrs. Adeline Bryan	Arts and Science	Reno
William H. Buntin	Arts and Science	Ely
Frank A. Burkham	Electrical Engineering	Reno
Spencer L. Butterfield	Arts and Science	Reno
Carroll C. Carrington	Civil Engineering	Selma, Calif.
Alice E. Chalup	Arts and Science	Fresno, Calif.
Edward R. Chittenden	Arts and Science	Long Beach, Calif.
Donald E. Church	Arts and Science	Reno
Samuel Cieri	Arts and Science	Reno
Adele Clemons	Arts and Science	Reno
William J. Clinch	Arts and Science	Quincy, Calif.
Harold P. Coffin	Arts and Science	Reno
Muriel B. Conway	Arts and Science	Reno
George V. Cooley	Arts and Science	Grass Valley, Calif
Clareice M. Craner	Arts and Science	Las Vegas
Lloyd E. Crosby	Electrical Eng.	Fresno, Calif.
May Cupples	Arts and Science	Reno
Foster W. Curtis	Mechanical Eng.	Seeley, Calif.
Ruth Curtis	Arts and Science	Reno
Clifford A. Davidson	Civil Engineering	Hanford, Calif.
Louise Davies	Arts and Science	Reno
Lena M. DeReemer	Arts and Science	Sparks
Ottilia Dotta	Arts and Science	Lovelock
William H. Downey	Arts and Science	Sparks
Ruth Eaton	Arts and Science	Reno
Willis L. Edwards	Civil Engineering	Peoria, Ariz.
Raymond Elges	Arts and Science	Gardnerville
*Neita C. Ellis	Arts and Science	Reno
S. Morey Eva	Arts and Science	Oakland, Calif.
Cornelius Fort	Electrical Engineering	Fallon
Courtland B. Frain	Mines	Chicago, Ill.

*Died January 24, 1925.

Edith M. Frandsen	Arts and Science	Reno
Ray C. Frederick	Arts and Science	Holt, Calif.
Harry J. Frost	Civil Engineering	Santa Cruz, Calif.
Harrison C. Gardiner	Arts and Science	Oakland, Calif.
Christina M. Garteiz	Arts and Science	Winnemucca
Boris Geine	Mechanical Engineering	China
Silvia F. Genasci	Arts and Science	Loyalton, Calif.
Charlotte J. Gibson	Arts and Science	Hawthorne
John R. Gillberg	Arts and Science	San Francisco
William A. Goodale	Agriculture	Deeth
George A. Gooding	Agriculture	Sacramento
Wesley J. Gritton	Arts and Science	Reno
Bernice Gruber	Arts and Science	Yerington
Ruth L. Gunter	Home Economics	Reno
Albert E. Harris	Civil Engineering	Reno
Mrs. Frances Harrison	Home Economics	Reno
Leslie B. Harrison	Arts and Science	Reno
Jack P. Hauschild	Electrical Engineering	Reno
Vera M. Haviland	Arts and Science	Winnemucca
Leland H. Hinckley	Mines	Tuscarora
Muriel I. Holland	Arts and Science	Reno
Sidney R. Holt	Arts and Science	Reno
Gilbert P. Howell	Arts and Science	Chicago, Ill.
Procter R. Hug	Arts and Science	Tonopah
Frances M. Humphrey	Arts and Science	Reno
Freda Humphrey	Arts and Science	Reno
Albert E. Jauregui	Arts and Science	Reno
Alberta R. Jones	Arts and Science	Reno
Elmer Jones	Arts and Science	Reno
John B. Kalin	Arts and Science	Santa Barbara, Calif.
Frank R. Kappler	Electrical Engineering	Reno
Frank Karlovsky	Arts and Science	Sparks
Robert Ketcham	Electrical Eng.	Roseville, Calif.
Percy Ketelson	Arts and Science	Vallejo, Calif.
William J. Kilmartin	Civil Engineering	San Francisco
Chauncey King	Arts and Science	Reno
Mildred Klaus	Arts and Science	Reno
Lawton B. Kline	Arts and Science	Reno
Ernest E. Kofoed	Arts and Science	Lovelock
John F. Kovec	Arts and Science	Richmond, Calif.
Olga Laiolo	Arts and Science	Reno
Mary Jane Lang	Arts and Science	Lovelock
James Payne Larrick	Arts and Science	San Francisco

Lesley L. Larsen	Arts and Science	Mendocino, Calif.
Willard J. Larson	Arts and Science	Manteca, Calif.
Philip L. Lawton	Arts and Science	Ripon, Calif.
Howard Leak	Civil Engineering	Susanville, Calif.
Frank Y. Leaver	Arts and Science	Reno
Mildred E. Leavitt	Arts and Science	Yerington
Edna I. LeFroy	Arts and Science	Westerville, Ohio
Leslie A. Lincoln	Arts and Science	Reno
Harold E. Lohlein	Arts and Science	Reno
Allan L. Lund	Arts and Science	Jarbidge
Walter H. Moddox	Mines	Oakland, Calif.
Russell Mahan	Arts and Science	Reno
William D. Malloy	Arts and Science	Austin
Edgar C. Mather	Electrical Eng.	St. Helena, Calif.
William M. Maxwell	Mines	Dixon, Calif.
Merrill McAfee	Arts and Science	Tonopah
Gwendolyn McLeod	Arts and Science	Tonopah
Ethyl McManus	Arts and Science	Reno
Ray H. Misener	Mines	Oakland, Calif.
Charles H. Moore	Arts and Science	Reno
Evalyn M. Nelson	Arts and Science	Reno
William S. Nesbit	Electrical Engineering	Thompson
Thelma Ninnis	Arts and Science	Reno
Ruth Olmsted	Arts and Science	Wells
Katherine O'Sullivan	Arts and Science	Los Angeles, Calif.
Charles R. Poppe	Civil Engineering	Sparks
Phyllis I. Poulin	Arts and Science	Winnemucca
Pierce R. Preston	Mines	Berkeley, Calif.
Mae D. Ramelli	Arts and Science	Ventura, Calif.
John M. Rector	Arts and Science	Nevada City, Calif.
Zelda C. Reed	Arts and Science	Fallon
Donnell C. Richards	Arts and Science	Reno
Marjorie C. Roach	Home Economics	Sweetwater
Thomas M. Roach	Civil Engineering	San Francisco
Fred A. Roemer	Civil Eng.	Mill Valley, Calif.
Charles H. Russell	Arts and Science	Deeth
Katherine T. Ryan	Arts and Science	Reno
Frank W. Samuels	Arts and Science	Reno
Raemon C. Samuels	Electrical Eng.	Willows, Calif.
George W. Sears	Arts and Science	Lone Pine, Calif.
Rena B. Semenza	Arts and Science	Reno
Fred Shair	Arts and Science	Reno
Lloyd A. Shellabarger	Arts and Science	Hanford, Calif.

Ralph J. Simon	Mechanical Engineering	Mina
Robert E. Skinner	Arts and Science	Eureka, Calif.
Carl R. Small	Electrical Engineering	Sparks
Junius A. Smith	Arts and Science	Santa Barbara, Calif.
Merle W. Smith	Electrical Engineering	Sparks
Bert G. Spencer	Arts and Science	Austin
Rocco L. Spina	Electrical Engineering	Reno
Audrey E. Springmeyer	Home Economics	Gardnerville
Esther M. Summerfield	Arts and Science	Mina
Gilberta S. Turner	Arts and Science	Sattley, Calif.
Frank M. Underwood	Arts and Science	McLeansboro, Ill.
Dorothy L. Ward	Arts and Science	Reno
Russell S. Weeks	Agriculture	Wells
Benjamin L. Welker	Arts and Science	Houck, Ariz.
Helen Wells	Home Economics	Logandale
Thomas J. Welsh	Electrical Engineering	Reno
George W. Whitehead	Arts and Science	Minden
Shaler G. Wilder	Agriculture	Boston, Mass.
Marie A. Williams	Arts and Science	Ely
Emerald S. Wogan	Arts and Science	Alturas, Calif.
Blanche M. Wyckoff	Arts and Science	Reno

SOPHOMORES

Helen A. Adamson	Arts and Science	Reno
Vincent Alexander	Arts and Science	Reno
Carol Ames	Arts and Science	Los Angeles, Calif.
Julian Anderson	Mechanical Engineering	Las Vegas
Henry K. Axton	Mechanical Eng.	Piedmont, Calif.
Naomi Ayres	Home Economics	Fallon
Clyde O. Balaam	Arts and Science	Reno
Frederick M. Ball	Mechanical Engineering	Ely
Lahmi J. Ballard	Arts and Science	Alturas, Calif.
Earl W. Banister	Mines	Hollister, Calif.
George W. Barnes	Electrical Engineering	Reno
Lloyd H. Barrington	Arts and Science	Reno
Guernsey Beckstead	Arts and Science	Owensmouth, Calif.
Glen M. Beeman	Civil Eng.	College City, Calif.
Norman E. Bell	Arts and Science	Winnemucca
Florence H. Billinghurst	Arts and Science	Reno
Arnold Bradshaw	Arts and Science	Stockton, Calif.
Emory C. Branch	Electrical Engineering	Fallon
Frances A. Braun	Arts and Science	Dayton
Cedric J. Brockliss	Electrical Engineering	Gardnerville

Ernest Brooks	Agriculture	Reno
Alice Brown	Arts and Science	Sparks
Raymond L. Browne	Mechanical Engineering	Reno
Margaret D. Browning	Arts and Science	St. Thomas
Lyell Burke	Home Economics	Reno
Neil C. Cadagan	Arts and Science	Reno
Robbins E. Cahill	Arts and Science	Sparks
Edward J. Campion	Arts and Science	San Francisco
Lena M. Capurro	Normal	Reno
Beatrice E. Carter	Normal	Smith
Douglas A. Castle	Arts and Science	Elko
Theresa Chambers	Arts and Science	Oakland, Calif.
William O. Cheney	Civil Engineering	Oakland, Calif.
Nute Christensen	Arts and Science	Gardnerville
Ernest M. Clays	Electrical Engineering	McGill
Mona Coffman	Arts and Science	Likeley, Calif.
James Russell Coleman	Arts and Science	Reno
Grace N. Costello	Arts and Science	Reno
Ralston L. Crew	Agriculture	Fallon
Jack B. Cunningham	Arts and Science	Sparks
Eleanor Curieux	Arts and Science	North Fork
Fred Curtis	Arts and Science	Los Angeles, Calif.
Yvonne B. DeGolia	Arts and Science	San Francisco
Florence A. Dillard	Normal	Merrill, Ore.
Augustus M. Dixon	Mines	Doyle, Calif.
Katherine G. Dunn	Normal	Sparks
Raymond C. Ede	Arts and Science	Loyalton, Calif.
Tillie Evansen	Arts and Science	Tonopah
Philip H. Farwell	Arts and Science	Litchfield, Calif.
Violet M. Faulkner	Arts and Science	Tonopah
George A. Fayle	Arts and Science	Las Vegas
Ervie A. Ferris	Mechanical Eng.	Westwood, Calif.
Ralph P. Finlay	Mechanical Engineering	Payson, Utah
Thomas P. Fitzgerald	Arts and Science	Randsburg, Calif.
Earl W. Fordham	Arts and Science	Carson City
Ione E. Fothergill	Arts and Science	Carson City
Lawrence J. Fuller	Arts and Science	Montello
William C. Gadda	Electrical Engineering	Reno
Clarence J. Gallagher	Arts and Science	San Francisco
Claud Galmarino	Arts and Science	Oakland, Calif.
Louis J. Ginocchio	Electrical Engineering	Reno
Serge M. Glyachenkoff	Mines	China
Reberta L. Golding	Arts and Science	Reno

Milton A. Gooding	Arts and Science	Sacramento, Calif.
Margaret A. Goodman	Arts and Science	Ely
Faye R. Graves	Home Economics	Fallon
Mary Gray	Arts and Science	Reno
William A. Gutteron	Arts and Science	San Diego, Calif.
Fred W. Hagmeyer	Arts and Science	Carson City
Ruth Hampton	Normal	Lovelock
Rubel D. Hanson	Normal	Gardnerville
Bernard H. Hartung	Arts and Science	Reno
William B. Hasty	Electrical Engineering	San Francisco
George W. Hennen	Arts and Science	Lamoille
Erle Henriksen	Arts and Science	Turlock, Calif.
Walter J. Herz	Electrical Engineering	Reno
Lois Hesson	Arts and Science	Elko
Jesse C. Hexberg	Arts and Science	Oroville, Calif.
Margaret S. Hill	Arts and Science	Reno
Robert W. Horn	Mechanical Eng.	Oakland, Calif.
Charles L. Horsey	Arts and Science	Las Vegas
Mardelle Hoskins	Arts and Science	Sacramento, Calif.
Katherine G. Hyland	Arts and Science	Seattle, Wash.
Ernest L. Inwood	Arts and Science	McGill
Maxine M. Isoard	Arts and Science	San Francisco
Jean Jackson	Arts and Science	Ely
William Jewett	Electrical Engineering	Eureka, Calif.
Fred R. Johns	Arts and Science	Sacramento, Calif.
Laurence E. Johnson	Arts and Science	Arbuckle, Calif.
Erma Jones	Normal	Overton
Dorothy Kaeser	Arts and Science	Reno
Lewis E. Keheo	Arts and Science	Lovelock
William C. Kinnon	Mechanical Engineering	Fallon
Donald A. Kirtland	Arts and Science	Redwood City, Cal.
Kenneth Knopf	Electrical Eng.	Campbell, Calif.
William A. Knowles	Arts and Science	Reno
Helen M. Lambert	Arts and Science	Fallon
James V. Larue	Arts and Science	Oakland, Calif.
Harold D. Lashus	Arts and Science	Ogden, Utah
Rene W. LeMaire	Arts and Science	Battle Mountain
Grace N. Lohlein	Home Economics	Reno
Ethel R. Lunsford	Arts and Science	Reno
Ainsley H. Mabson	Arts and Science	Reno
Mrs. Josephine MacKenzie	Normal	Reno
Karl O. Malmquist	Mines	Concord, Calif.
Clara S. Manson	Arts and Science	Reno

Edith C. Martin	Normal	Reno
Clarence McNees	Arts and Science	Gobleville, Mich.
Helen S. Medigovich	Arts and Science	Reno
Ian Mensinger	Arts and Science	Modesto, Calif.
Gerald A. Merritt	Arts and Science	San Jose, Calif.
Ellen L. Miller	Arts and Science	Berkeley, Calif.
Doris D. Misner	Arts and Science	Richmond, Calif.
Jeanne D. Misner	Arts and Science	Richmond, Calif.
Bonnie Mitchell	Arts and Science	Reno
Elsie M. Mitchell	Arts and Science	Reno
Robert A. Mitchell	Arts and Science	Reno
Julius Molina	Arts and Science	Reno
Ada C. Moore	Arts and Science	Winnemucca
Frank Morrill	Arts and Science	Reno
Erwin F. Morrison	Electrical Eng.	Westwood, Calif.
James A. Morrow	Arts and Science	Fair Oaks, Calif.
Margaret Morrow	Arts and Science	Fair Oaks, Calif.
Grace M. Muran	Arts and Science	Reno
Vera Muran	Arts and Science	Reno
Pauline Neer	Home Economics	Reno
Joseph Nenzel	Arts and Science	Reno
Warren H. Neuebaumer	Arts and Science	Round Mountain
Elma R. Orr	Arts and Science	Reno
Theodore D. Overton	Electrical Engineering	Reno
Richard A. Patterson	Arts and Science	San Francisco
Edythe Peacocke	Arts and Science	Reno
Nevada H. Pedroli	Arts and Science	Reno
Victor J. Pimentel	Civil Engineering	Reno
Charlotte Porter	Home Economics	Reno
Thelma M. Pray	Arts and Science	Reno
Cordelia Price	Arts and Science	San Francisco
George W. Quinn	Mechanical Engineering	San Francisco
Thomas Raycraft	Agriculture	Gardnerville
Walter Reimers	Arts and Science	Oakland, Calif.
Charles S. Renwick	Arts and Science	Richmond, Calif.
Josephine A. Reimann	Normal	Gardnerville
Pearle M. Ripley	Arts and Science	Oakland, Calif.
Kenneth Robertson	Arts and Science	Modesto, Calif.
Ida Mary Robinson	Arts and Science	Reno
Roland L. Roy	Electrical Engineering	Reno
Steen S. Salomon	Electrical Engineering	San Francisco
Lloyd C. Searcy	Electrical Engineering	Fortuna, Calif.
Frederic Siebert	Arts and Science	Reno

Robert B. Simerly	Arts and Science	Tennessee
Louis B. Skinner	Mines	Lone Pine, Calif.
Thor M. Smith	Arts and Science	Reno
Darwin W. Sparks	Electrical Engineering	Reno
Ada E. Springmeyer	Normal	Gardnerville
C. Russell Squires	Electrical Engineering	Las Vegas
Wilma F. Squires	Arts and Science	Reno
William Stark	Arts and Science	San Francisco
Gerald Stevick	Mechanical Eng.	San Francisco
Robert V. Stewart	Arts and Science	Reno
Ruel R. Stickney	Agriculture	Caspar, Calif.
Warner H. Still	Arts and Science	San Francisco
Ellen E. Stitt	Arts and Science	Reno
Wallace E. Taber	Mechanical Engineering	Elko
Jack C. Thatcher	Arts and Science	Reno
Dorothy C. Trimble	Arts and Science	Reno
Alice B. Twaddle	Arts and Science	Reno
Hortense L. Valleau	Arts and Science	Reno
Lester Walker	Arts and Science	San Francisco
Charles Watkins	Electrical Engineering	Reno
John J. Welsh	Electrical Engineering	Reno
Roy Whitacre	Arts and Science	Yerington
Bernard White	Electrical Eng.	Truckee, Calif.
Vivian L. Wilder	Arts and Science	Acampo, Calif.
Myrle Wilkerson	Normal	Smith
Ruth O. Williams	Home Economics	Reno
Charles E. Wood	Civil Engineering	Placerville, Calif.
N. Earl Worden	Arts and Science	Palo Alto, Calif.
Pauline Wren	Arts and Science	Susanville, Calif.
Frances E. Wright	Home Economics	Reno
Gertrude F. Wyckoff	Arts and Science	Reno
Margaret York	Home Economics	Fallon
Meda M. Young	Arts and Science	Reno

FRESHMEN

Eva B. Adams	Arts and Science	Reno
Gregory R. Adams	Arts and Science	Reno
Charles W. Agard	Arts and Science	Goldfield, Iowa
Dorothy M. Ahlers	Arts and Science	Reno
Clare Aikin	Home Economics	Reno
Almon Allen	Arts and Science	Upland, Calif.
Lem S. Allen	Agriculture	Fallon
Max B. Allen	Arts and Science	Los Angeles

William Wallace Allen	Arts and Science	Oakland, Calif.
Clark Amens	Electrical Engineering	East Ely
Dorothy H. Anderson	Home Economics	Tonopah
Fred M. Anderson	Arts and Science	Ruth
Orville W. Anderson	Electrical Engineering	Reno
Juan B. Aralar	Mines	Philippine Islands
Howell V. Armistead	Arts and Science	Newman, Calif.
Ralph Aten	Arts and Science	Fresno, Calif.
John W. Babcock	Electrical Eng.	Berkeley, Calif.
Francis C. Baker	Arts and Science	Sparks
Willis L. Balgoyen	Arts and Science	Fallon
Paul T. Barnes	Arts and Science	Berkeley, Calif.
Fred G. Barnum	Arts and Science	Eureka, Calif.
Grace Bassett	Arts and Science	Reno
Anita Becaas	Arts and Science	Reno
Arnold Benson	Electrical Eng.	Willows, Calif.
Mae I. Bernasconi	Arts and Science	Reno
Marion E. Bernhardt	Arts and Science	Reno
Grace P. Berreyesa	Arts and Science	Bridgeport, Calif.
Angus Y. Bethune	Mines	San Francisco
Margaret L. Beverly	Arts and Science	East Ely
Rudolph A. Blum	Mines	Woodland, Calif.
Laverne A. Blundell	Arts and Science	Sparks
Lois Bona	Arts and Science	Tonopah
Violet Boulding	Arts and Science	Sparks
Orville Bower	Civil Engineering	Oakland, Calif.
Harold Bowes	Arts and Science	Hollywood, Calif.
Hampton Brady	Arts and Science	Winnemucca
Elmer Braghett	Arts and Science	Oakland, Calif.
Viola Braunschweiger	Arts and Science	Palo Alto, Calif.
Philip E. Brock	Arts and Science	Sacramento, Calif.
Ethel C. Brooks	Home Economics	Reno
Lillian Browne	Arts and Science	Reno
Louise Bruce	Normal	Tonopah
Ruth I. Brundidge	Home Economics	Reno
Jeannette Buckingham	Normal	Paradise Valley
Borghild Bue	Arts and Science	Sisseton, S. Dak.
Wayne W. Buerer	Mechanical Engineering	Fallon
Barbara A. Bulmer	Arts and Science	Reno
Beverly G. Bulmer	Arts and Science	Reno
Herbert T. Bunker	Arts and Science	Alturas, Calif.
Vernon Cantlon	Arts and Science	Sparks
Lenus J. Cardoza	Arts and Science	Newman, Calif.

Alice J. Carney	Arts and Science	Virginia City
John J. Carniato	Electrical Eng.	Westwood, Calif.
John D. Carroll	Arts and Science	Los Angeles, Calif.
Charles V. Carter	Arts and Science	Reno
Eugene A. Carter	Arts and Science	San Francisco
Louis M. Carvalho	Arts and Science	Elko
Alden B. Chace	Electrical Engineering	Adin, Calif
Lawrence W. Chaffee	Electrical Engineering	Visalia, Calif.
Ted F. Chinn	Arts and Science	San Francisco
Alfred C. Clarke	Arts and Science	Sacramento, Calif.
William E. Clawson	Arts and Science	Reno
Leslie E. Clover	Electrical Eng.	Woodland, Calif.
Gladys Coats	Home Economics	Calpine, Calif.
Gertrude E. Coddington	Arts and Science	Yerington
Harry Cohen	Arts and Science	Taunton, Mass.
Elizabeth Coleman	Arts and Science	Carson City
Bruce J. Connelly	Arts and Science	Reno
William B. Cook	Arts and Science	Oakland, Calif.
Dorothy M. Cooper	Arts and Science	Reno
Arthur R. Cox	Arts and Science	Oakland, Calif.
Azile Crow	Home Economics	Sheridan, Wyo.
Allen R. Crawford	Arts and Science	McGill
Garnet L. Cullam	Arts and Science	McGill
Jack M. Culvyhouse	Mechanical Eng.	Berkeley, Calif.
Walter D. Cunningham	Arts and Science	Sparks
Catherine A. Curieux	Arts and Science	Tonopah
Donald S. Dakin	Arts and Science	Sparks
Cyrus K. Dam	Electrical Engineering	San Francisco
Ruth Dangberg	Arts and Science	Minden
Katherine M. Davidson	Arts and Science	Berkeley, Calif.
George G. Dehy	Arts and Science	Bishop, Calif.
Clifford K. Dennis	Mines	Ione
William A. Dennis	Arts and Science	Pomona, Calif.
Marian Deremer	Arts and Science	San Francisco
Alexis Derkach	Civil Engineering	China
Franklin N. Dewey	Arts and Science	Alameda, Calif.
Lenora E. Dickson	Arts and Science	Reno
Edwin F. Doody	Arts and Science	Sparks
Donna E. Dove	Home Economics	Elko
Edith M. Dowd	Arts and Science	Sparks
Olive D. Dunn	Arts and Science	Bishop, Calif.
Robert B. Durkee	Arts and Science	Reno
Irving K. Elliott	Agriculture	Sacramento, Calif.

Sadie Elliott	Normal	McGill
Milton W. Ennor	Arts and Science	Reno
Norman Jack Ericson	Mines	Reno
Margaret Ernst	Arts and Science	Fallon
Ralph P. Farnsworth	Arts and Science	Berkeley, Calif.
Herbert M. Faulkner	Electrical Eng.	Alturas, Calif.
Walter Fenander	Electrical Engineering	Oakland, Calif.
Eloise Ferguson	Normal	Fallon
Laurence E. Fish	Mines	Benicia, Calif.
Stephen B. Fiske	Arts and Science	Balboa, Canal Zone
Harvey F. Flint	Mechanical Eng.	Hollister, Calif.
Mabel C. Flournoy	Normal	Alturas, Calif.
Thomas B. Flynn	Arts and Science	Oakland, Calif.
Helen C. Fox	Arts and Science	Reno
Helen Fraser	Arts and Science	Berkeley, Calif.
Fremond Frembling	Arts and Science	Oakland, Calif.
John W. Frickstad	Arts and Science	Oakland, Calif.
Robert C. Friend	Arts and Science	Oakland, Calif.
Roger B. Friend	Arts and Science	Oakland, Calif.
Maude L. Fulstone	Home Economics	Reno
George Gadda	Arts and Science	Reno
Robert W. Ganeles	Arts and Science	Stockton, Calif.
Joe Garcia	Civil Engineering	Visalia, Calif.
Arthur W. Gay	Electrical Eng.	Palo Cedro, Calif.
Cecil H. Gay	Electrical Eng.	Palo Cedro, Calif.
Louis Genasci	Agriculture	Loyalton, Calif.
Clel E. Georgetta	Arts and Science	Eightmile Ranch
Walter S. Goldie	Arts and Science	Wilmington, Calif.
Lele Goldstein	Arts and Science	Reno
Cecelia Gonder	Normal	Wellington
Norma Gorman	Home Economics	Reno
Margaret D. Gottardi	Arts and Science	Sparks
Joe H. Gray	Arts and Science	Reno
George Sumner Green	Arts and Science	Reno
Robert N. Green	Mines	Salinas, Calif.
William W. Green	Electrical Eng.	Westwood, Calif.
Hazel Greninger	Arts and Science	Chile, S. A.
Kathleen A. Griffin	Arts and Science	Tonopah
Egon Guderian	Mechanical Eng.	Oakland, Calif.
Lorie Guderian	Normal	Oakland, Calif.
Cassius P. Gustin	Mines	Mocalno, Calif.
Jack Halley	Arts and Science	Reno
Willis S. Hamilton	Electrical Engineering	Fallon

Norine Hanna	Arts and Science	Lee
Reynold F. Hansen	Electrical Engineering	Salinas, Calif.
Andrew N. Hanson	Electrical Engineering	Steamboat
Richard A. Harcourt	Arts and Science	Millers
Eugene D. Hardison	Mines	Long Beach, Calif.
Alice E. Hardy	Home Economics	Wabuska
Margaret N. Hare	Arts and Science	Palo Alto, Calif.
Clair Harper	Arts and Science	Sparks
John J. Harrington	Arts and Science	Monterey, Calif.
Lee B. Harrison	Civil Engineering	Long Beach, Calif.
Geraldine R. Harvey	Arts and Science	Paradise Valley
Philip W. Heisch	Civil Engineering	Berkeley, Calif.
Esther I. Henry	Normal	Reno
Helen M. Hibbert	Arts and Science	Susanville, Calif.
Watt B. Hibler	Arts and Science	Eureka, Calif.
John J. Higginbotham	Arts and Science	Elko
Alfred D. Hill	Arts and Science	Pasadena, Calif.
Mildred Hill	Normal	College City, Calif.
John B. Hodgkins	Arts and Science	Sacramento, Calif.
Forrest R. Holdcamper	Arts and Science	Sparks
Milton Howard	Agriculture	Reno
John E. Humphrey	Arts and Science	Reno
Florence A. Hunley	Arts and Science	Oakland, Calif.
Mary Hurtado	Arts and Science	Winnemucca
Elizabeth I. Hylen	Normal	Ravendale, Calif.
Ralph Irving	Mines	Salyer, Calif.
Andrea Isotoff	Mines	China
Eleanor G. Jackson	Arts and Science	Eureka, Calif.
Thomas A. Jackson	Arts and Science	Stockton, Utah
Margaret M. Jenkins	Arts and Science	Johnstonville, Calif.
Bernice Johnson	Arts and Science	Carson City
Gordon O. Johnson	Electrical Engineering	Reno
Walter A. Johnson	Arts and Science	Piedmont, Calif.
Louise M. Jones	Arts and Science	Reno
Kenneth G. Kallenback	Electrical Engineering	Fallon
Herman F. Keyser	Electrical Engineering	Reno
Annazita Killeen	Normal	Moapa
John L. Kingsley	Arts and Science	Berkeley, Calif.
Charles B. Kinney	Arts and Science	Japan
Katherine K. Kistler	Arts and Science	Reno
Leroy H. Kitts	Arts and Science	Grass Valley, Calif.
Julia F. Klinge	Arts and Science	Oakland, Calif.
Floyd Knickerbocker	Arts and Science	Las Vegas

Franklin Koehler	Arts and Science	Mason
Serge Kondrashoff	Mechanical Engineering	China
Floyd J. Lamb	Arts and Science	Reno
Rudolph H. Larsen	Arts and Science	Mendocino, Calif.
Justus Lawson	Arts and Science	Dillons Beach, Calif.
Fred LaVigne	Arts and Science	Reno
Granville I. Leavitt	Arts and Science	Yerington
Dana Leet	Arts and Science	Dayton
Claire M. Lehmkuhl	Electrical Engineering	Pinole, Calif.
Jack Lindsay	Arts and Science	Tonopah
Mervyn O. Little	Arts and Science	Salinas, Calif.
Ruth Lord	Home Economics	Eureka, Calif.
Isabel F. Loring	Arts and Science	Fallon
Juanita L. Lowe	Arts and Science	Fallon
Arthur I. Lyon	Arts and Science	McDermitt
Elmer K. Lyon	Arts and Science	McDermitt
Ernest MacArthur	Electrical Eng.	Redwood City, Calif
Harold MacAtee	Arts and Science	Oroville, Calif.
John T. Madden	Mines	Denver, Colo.
Kathleen Malloy	Arts and Science	Berkeley, Calif.
Arlie Marie Mann	Normal	Smith
Babu L. Manrow	Arts and Science	India
Mabel F. Mariani	Arts and Science	Sparks
Adele A. Martin	Arts and Science	Reno
Whiting F. Martin	Agriculture	Taft, Calif.
Donald M. Mayhew	Electrical Eng.	Willows, Calif.
Mary L. McCarran	Arts and Science	Reno
Edmund McClintock	Mines	San Francisco
Alden K. McCollum	Electrical Engineering	Reno
Wilfrid J. McDermott	Arts and Science	Alviso, Calif.
John D. McDonald	Arts and Science	San Francisco
Laurence S. McElroy	Agriculture	Biggs, Calif.
Ralph C. McIlwaine	Arts and Science	San Francisco
Henry C. McKenna	Arts and Science	Sacramento, Calif.
Joe C. McKenzie	Arts and Science	Ludwig
Daniel McLeod	Electrical Engineering	Goldfield
Ernest McMurtrey	Arts and Science	Elko
Grace C. McNeil	Arts and Science	Reno
Martin H. Melendy	Arts and Science	Hollister, Calif.
Mary F. Meskimons	Arts and Science	Merced, Calif.
Ila C. Meyer	Normal	Austin
Gertrude E. Miller	Arts and Science	Selma, Calif.
Laddie J. Miller	Arts and Science	Oakland, Calif.

Lester E. Mills	Agriculture	Logandale
Joseph Min	Arts and Science	Korea
Alice M. Molini	Arts and Science	Dyer
Warren J. Monroe	Arts and Science	Sparks
James M. Moore	Arts and Science	Winnemucca
Ruth D. Moore	Arts and Science	Reno
Theo Morgan	Arts and Science	Fallon
Gibson K. Morrison	Arts and Science	Reno
Giles Morrison	Electrical Engineering	Las Vegas
Robert F. Morrison	Arts and Science	Chicago, Ill.
Lloyd H. Moss	Agriculture	Reno
Jean Mullaney	Normal	McDermitt
Edmund A. Muth	Electrical Engineering	Goldfield
Carrol Nason	Electrical Eng.	Livermore, Calif.
Frances M. Nelson	Arts and Science	Oakland, Calif.
Henry C. Nelson	Electrical Engineering	Reno
Sievert J. Nelson	Arts and Science	Reno
Viola P. Nelson	Arts and Science	Reno
Della V. Newlon	Normal	Bishop, Calif.
Leonard W. Noblitt	Arts and Science	Las Vegas
John F. Nordquist	Mines	Wallace, Idaho
Albert C. Norris	Electrical Eng.	Alhambra, Calif.
Leslie Olds	Normal	Reno
Theodora Olmsted	Arts and Science	Wells
Lynn R. Olson	Electrical Engineering	Reno
Violet Palsgrove	Normal	Reno
Roy Passno	Civil Engineering	Las Vegas
Thornton E. Parr	Electrical Engineering	Oakland, Calif.
Therese M. Pasquale	Arts and Science	Reno
Edward O. Patterson	Arts and Science	Carson City
Albert C. Paulsmeier	Arts and Science	Oakland, Calif.
Lillian Pearce	Arts and Science	Winnemucca
Loran T. Pease	Arts and Science	Oakland, Calif.
Budd J. Peaslee	Agriculture	Salinas, Calif.
Edith E. Peddicord	Normal	Vancouver, Wash.
Vernon R. Penrose	Arts and Science	Yerington
Ralph Perrin	Arts and Science	Reno
Miles W. Peters	Electrical Engineering	Sparks
James J. Pfister	Arts and Science	Berkeley, Calif.
George S. Phillips	Arts and Science	Pomona, Calif.
Altha Pierson	Arts and Science	Reno
Gladys Pierson	Home Economics	Reno
George B. Pimentel	Arts and Science	Fresno, Calif.

Arthur I. Plomgren	Electrical Engineering	Benicia, Calif.
Dorothy W. Porter	Arts and Science	Monterey, Calif.
Thelma E. Porter	Arts and Science	Monterey, Calif.
Reuel Pray	Electrical Engineering	San Francisco
John J. Prenderville	Arts and Science	Reno
Wilma A. Prewett	Arts and Science	Auburn, Calif.
Harold Prior	Arts and Science	Blocksburg, Calif.
Walter R. Putz	Electrical Engineering	Laton, Calif.
Maxine Quinby	Home Economics	Oakland, Calif.
Winston L. Rackerby	Arts and Science	Oakland, Calif.
Mary G. Rand	Arts and Science	Ely
Whitney H. Redemeyer	Arts and Science	Ukiah, Calif.
Elva Mae Reed	Normal	Elko
Oltman Reil	Agriculture	Winnemucca
Gertrude A. Reilly	Arts and Science	Ely
Harvey A. Reynolds	Civil Engineering	Reno
*Charles Franklin Riley	Electrical Engineering	Carson City
Comer A. Robertson	Arts and Science	Visalia, Calif.
Leonard O. Robertson	Electrical Eng.	Garberville, Calif.
Norma L. Robinson	Arts and Science	Reno
Alta L. Rowse	Normal	Montello
George Allen Royce	Arts and Science	Los Angeles, Calif.
Elmer J. Rutherford	Arts and Science	Deeth
John Sanford	Arts and Science	Reno
Gertrude E. Sauer	Arts and Science	Franktown
Otto R. Schulz	Agriculture	Carson City
Donald Schuyler	Mechanical Engineering	Las Vegas
Lionel R. Scott	Arts and Science	Reno
William Keith Scott	Mines	Los Angeles, Calif.
Roger Segure	Arts and Science	Oakland, Calif.
Walter E. Sellman	Electrical Engineering	Reno
Anne Shaughnessy	Arts and Science	Carson City
Frances R. Shaughnessy	Arts and Science	Carson City
Betty Sue Shaw	Arts and Science	Fallon
Carl B. Shelly	Arts and Science	Sparks
John W. Sherwin	Arts and Science	Oakland, Calif.
John B. Shields	Arts and Science	Lovelock
Harry Simas	Arts and Science	Reno
Fred F. Small	Electrical Engineering	Sparks
Carol K. Smith	Arts and Science	Sparks
Helen M. Smith	Normal	Fallon
Lloyd V. Smith	Mines	Nevada City, Calif.

*Died January 30, 1925

Madaline I. Smith	Arts and Science	Tonopah
Taylor Smith	Arts and Science	Lovelock
Wallace S. Smith	Arts and Science	Elko
Ruth G. Smithe	Arts and Science	Claremont, Calif.
Weaver A. Solomon	Mines	Berkeley, Calif.
Roy H. Sorenson	Arts and Science	Arcata, Calif.
Genevieve Spencer	Arts and Science	Sparks
Lester L. Spinney	Civil Engineering	Fortuna, Calif.
Lea R. Staiger	Agriculture	Livermore, Calif.
Byron F. Stetler	Electrical Eng.	Yuba City, Calif.
Budd O. Stevenson	Arts and Science	Reno
Carl Stiles	Arts and Science	Stockton, Calif.
Leland Stinchfield	Arts and Science	Sacramento, Calif.
May G. Stinson	Home Economics	Elko
Edward B. Stirm	Civil Engineering	San Francisco
Dorothy L. Stoddard	Arts and Science	Reno
Marion N. Stoddard	Arts and Science	Reno
Elmer W. Stodieck	Agriculture	Gardnerville
Gerald Stoff	Arts and Science	San Francisco
Bessie M. Strange	Normal	Elko
Lucile A. Summerfield	Arts and Science	Mina
William F. Taylor	Arts and Science	Reno
Bachan S. Teja	Arts and Science	Broderick, Calif.
Julia M. Thein	Normal	Fallon
James Ernest Thompson	Mechanical Engineering	Elko
Howard Thompson	Arts and Science	Eureka, Calif.
Carol M. Tinsman	Home Economics	Adin, Calif.
Bernice E. Trabert	Normal	Sparks
Mrs. Carol Hicks Tripp	Arts and Science	Fallon
Annie I. Twaddle	Arts and Science	Carson City
David Van Lennep	Electrical Engineering	Auburn, Calif.
Guy A. Wahlund	Electrical Engineering	Elko
Gene R. Walker	Arts and Science	Sparks
Letus A. Wallace	Arts and Science	Winton, Calif.
Villa E. Walther	Home Economics	Halieck
William R. Warren	Arts and Science	Berkeley, Calif.
Archie A. Watson	Arts and Science	Sacramento, Calif.
Charles M. Way	Arts and Science	Fallon
Thelma L. Weeks	Normal	Wells
Marion E. Wellendorf	Home Economics	Oakland, Calif.
Brenton B. Werder	Mechanical Eng.	Redwood City, Calif.
Carroll W. Westfall	Electrical Eng.	Goshen Junction, Calif.
Frances Westfall	Arts and Science	Reno

Dan White	Arts and Science	Richmond, Calif.
Emerson J. Wilson	Arts and Science	Reno
Glen Wimer	Civil Engineering	Salinas, Calif.
William H. Wood	Arts and Science	Sacramento, Calif.
George F. Wright	Arts and Science	Elko
John C. Yarbrough	Agriculture	Fallon
Alice Grace Yordi	Arts and Science	Cloverdale, Calif.
J. Howard Young	Arts and Science	Fallon
Edward N. Ziegler	Electrical Engineering	Reno
Lionel Zumwalt	Agriculture	Colusa, Calif.

UNCLASSIFIED

Douglas Ackerman	Arts and Science	Hawaii
Vesta Bradshaw	Arts and Science	Reno
Myrtle Brown	Arts and Science	Reno
Eugene L. Cutting	Arts and Science	Sacramento, Calif.
Leah F. Collins	Arts and Science	Sparks
Mrs. Charles W. Davis	Arts and Science	Reno
Theodosia Gronback	Arts and Science	Reno
Dorothy Harrington	Arts and Science	Reno
Mrs. Marie Higginbotham	Arts and Science	Reno
Gertrude Hillman	Arts and Science	Sparks
Wayne C. Hinckley	Arts and Science	Penryn, Calif.
Vera Larsen	Arts and Science	Reno
LaVerne LeMaire	Arts and Science	Reno
Eleanor T. Miller	Arts and Science	Reno
Mary E. Moore	Arts and Science	Los Angeles, Calif.
Everett Morrissey	Arts and Science	Sacramento, Calif.
Lester G. Payne	Arts and Science	Sparks
Willis R. Pressell	Electrical Engineering	Reno
Elizabeth P. Smith	Arts and Science	Reno
Ruby V. Spoon	Arts and Science	Reno
Florence Tannahill	Arts and Science	Reno
Osmond Wraith	Arts and Science	Waterford, Calif.
Mrs. Mary D. Young	Arts and Science	Reno

SPECIALS

Ira Allison	Mines	Beverly Hills, Calif.
Dorothy A. Bartlett	Arts and Science	Reno
Florie Braghetta	Mechanical Eng.	Vallejo, Calif.
Frank L. Bristol	Mines	South Africa
Mrs. Leda Buchanan	Arts and Science	Reno
Jerry E. Cadagan	Arts and Science	Reno
Mrs. B. H. Caples	Arts and Science	Reno

Gladys Clausen	Arts and Science	Reno
Mrs. Hamilton Coffey	Arts and Science	New York
Doris Craven	Arts and Science	Reno
Thomas O. Craven	Arts and Science	Reno
Sam Davis	Civil Engineering	Reno
Darrell Day	Arts and Science	Woodland, Calif.
Benjamin J. Dieringer	Normal	Reno
Thomas DeDios	Arts and Science	Reno
Lee E. Dungan	Arts and Science	Martinez, Calif.
Arthur Eagle	Arts and Science	Big Creek, Calif.
Lucian Eastland	Arts and Science	Redding, Calif.
Franklyn Ellis	Electrical Engineering	Reno
Ernest E. Fairbanks	Arts and Science	Reno
Mrs. Perl Farkas	Arts and Science	New Orleans, La.
Ralph Gignoux	Mechanical Eng.	Oilfields, Calif.
Frederick Gilmour	Mines	San Francisco
John W. Grant	Arts and Science	Reno
Ray Henricksen	Mines	Stanislaus, Calif.
Mrs. Ruth Hester	Home Economics	Reno
Thomas G. Kachos	Electrical Engineering	Sparks
Harvey Lashus	Electrical Engineering	Reno
Fawn Louie	Arts and Science	Reno
Mrs. George McKenzie	Arts and Science	Reno
Fedel Musso	Arts and Science	Bowman, Calif.
Lawrence S. Niswander	Electrical Eng.	Watsonville, Calif.
Vincent Noonan	Agriculture	Hollywood, Calif.
Mrs. Amelia Pepper	Arts and Science	Reno
Dorina Petrinovich	Arts and Science	Reno
Ellis R. Randall	Civil Engineering	Virginia City
Mrs. Irene Rivera	Home Economics	New York
Marvin Robinson	Arts and Science	Reno
Guthrie Rowe	Arts and Science	Davis
George J. Scully	Arts and Science	Reno
Grace Sheehan	Home Economics	Reno
Alice Sheldon	Normal	Winnemucca
Leland Thorne	Mechanical Engineering	Napa, Calif.
Cruz Venstrom	Agriculture	Fallon
Bryson Weber	Civil Engineering	Reno
Mrs. Carl Wheeler	Arts and Science	Reno
Mrs. Harriet Williams	Arts and Science	Reno
Christopher W. Wogan	Arts and Science	Reno
Stanley G. Yount	Arts and Science	Oakland, Calif.

SUMMER SCHOOL, 1924

Mrs. Anna Adams	Oakland	Mrs. Ruby Fitzgerald	Goldfield
Algot E. Anderson	Sparks	Ruth Foster	Reno
Anu E. Ant	Minnesota	Helen Fowler	Reno
Mrs. J. A. Armstrong	Reno	Norma Gardella	Reno
Jasper C. Atkinson	Illinois	Leonora Gardner	Lund
Dorothy L. Augustine	San Jose	Kathleen Goodwin	Arthur
Mrs. E. Augustine	San Jose	Lillian Gentry	Caliente
Verla E. Bailey	Virginia City	George Green	Reno
Jessie Baldwin	Idaho	Isabelle Griswold	Deeth
Joe Barbash	Reno	Mary Guthrie	Winnemucca
Anita Becaas	Reno	Blanch Guthrie	Winnemucca
Zelda Beebe	Sparks	Eva Hale	Reno
Lottie Bjorgan	Minnesota	Dr. John Grant	Reno
Louise Blossom	Battle Mountain	Hortense Haughney	Lovelock
Winnifred Boulanger	Reno	Vera Hepworth	Metropolis
Katherine Boyle	Reno	Mildred Hill	College City, Calif.
Margaret Burke	Reno	Elsie Hooper	Eureka
Minnie Bradshaw	Hughson, Cal.	Mrs. Bernice James	Reno
Jeannette Brown	Reno	Louise Jasperson	Minnesota
Mrs. Carrie Bullis	Winnemucca	Bernice Judd	Reno
Woodbury L. Bunnell	Berkeley	Marie Kaiser	Reno
Adah J. Burch	Whittier, Cal.	LaVerne Kaiser	Fallon
Ellen Burk	Carson City	Helen Klaus	Berkeley
Gladys Cafferata	Reno	Bernard Koehler	Mason
Electa Cain	San Diego	F. D. Keele	Sparks
Mrs. R. Canonic	Genoa	Margaret Lambert	Fallon
Lillis Cazier	Preston	Alphonsine Liotard	Paradise
Mrs. Lela Chelgren	Stockton	Leslie A. Lincoln	Reno
Rose M. Chiara	Battle Mountain	Mrs. Anna Loomis	Reno
Kathryn I. Clark	Reno	Fern Lowry	Winnemucca
Margaret Cornell	San Jose	Mrs. F. Lowry	Winnemucca
Mrs. Gladys Crosby	Sparks	Helen Mann	Smith
Jack G. Crowley	Sparks	Mrs. G. McKenzie	Gardnerville
Ruth B. Crowley	Sparks	Stillman Magee	Oakland
Helen M. Dailey	Sacramento	Edgar C. Mather	St. Helena
Mrs. Mary M. Dodge	Reno	Ambia McDowell	Tennessee
Harold F. Dwyer	San Francisco	Pearl McNaughton	Eureka
Ruth Eaton	Reno	Hester Mills	Fallon
Mrs. Florence Eddy	Elko	Wm. Mitchell	San Luis Obispo
*Mrs. F. Eichwaldt	Orovada	Charles H. Moore	Reno
Katherine Ferris	Sierra Madre	Mrs. M. Morgan	Dixie Valley

*Died July 27, 1924

Marjorie Noteware....Carson City
Marie E. Oman.....Belmont
Robert Osborne.....Reno
Effie Oxboro.....Lund
Mrs. F. B. Patrick.....Reno
Mrs. Clara Patterson.....Ludwig
Martha Patterson.....Carson City
Mrs. J. G. Pearl.....Fallon
Myrtle Penner.....Gerlach
Mrs. Lee Perry.....Smith Valley
Victor Pimental.....Reno
Clara E. Plumb.....San Francisco
Beatrice Plummer.....Reno
Ruth Pollinger.....San Bernardino
Dorothy Record.....Reno
Margaret Reid.....Lund
Florence Richardson.....Smith
Ruby E. Riley.....Paradise Valley
Esther Ripley.....Montana
L. J. Risley.....McDermitt
Agnes Roberts..San Andreas, Cal.
Mrs. L. C. Rowe.....Reno
Bessie E. Sanders.....Winnemucca
Mrs. I. M. Sanford.....Fallon
Jewel Schofield.....Hiko
William P. Schuler.....Petaluma
Mary Scott.....Rowland
Alwine Sielaff.....Reno
Mrs. Addie M. Parke.....Reno
Fred A. Roemer.....Mill Valley
H. C. Scranton.....Reno
L. A. Shellabarger..Hanford, Cal.
Robert B. Simerly.....Tennessee
Elizabeth P. Smith.....Reno
Mrs. Arvine B. Smith.....Reno
Mildred Smith.....Reno
Pansy Stites.....Los Angeles
Anna L. Stites.....Los Angeles
Frances Stone.....Ely
Margaret M. Sweeney.....Stewart
Tressa Terry.....Metropolis
Mrs. Carol Tripp.....Fallon
L. G. Vierra....Moss Landing, Cal.
Mrs. Anna Wallace.....Ely
Gertrude Washburn.....Paradise
Margaret Watson.....Elko
Mrs. Cora Watt.....Winnemucca
Marjorie Webb.....Reno
Pauline Westover.....Reno
Mrs. C. S. Wheeler.....Reno
Scott Wilcox.....Carson City
Maud R. Williams.....Reno
Alice Williams....Battle Mountain
Mildred Wise.....Reno
Agnes Woodworth.....Gardnerville
Mrs. J. Woolverton....Gardnerville
Mrs. Myrtle Wright.....Berkeley
Margaret York.....Fallon
Harry Young.....Reno

VETERANS' BUREAU SUMMER SCHOOL FOR 1924

Jasper C. Atkinson..Fairfield, Ill.
Arnold Bradshaw....Jackson, Cal.
Woodbury L. Bunnell....Berkeley
Lloyd E. Crosby....San Francisco
Charles E. Card.....New Mexico
Willis L. Edwards.....Arizona
Forrest F. Frost.....Reno
Boris Geine.....China
Charles D. Hicks.....Reno
Gilbert P. Howell.....Chicago
Thomas E. Kachos.....Sparks
Walter Maddox.....Oakland
Edgar C. Mather.....St. Helena
C. McClelland.....San Luis Obispo
Lloyd S. Richards.....San Jose
Fred A. Roemer..Mill Valley, Cal.
L. A. Shellabarger.....Hanford
Robert Simerly.....Tennessee
William P. Schuler.....Petaluma
William T. Thomas.....Reno
L. G. Vierra....Moss Landing, Cal.
Harold F. Dwyer....San Francisco

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DIRECTORY

Officers, Faculty, Public-Service Workers, and Other Employees Connected with the University

All addresses are Reno, unless otherwise specified. Phone numbers given at end of each address.

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Adams, Wayne B., Assistant Chemist, Food and Drug Laboratory, 354 W. Liberty. 1348-J.

Albert, Henry, Director State Hygienic Laboratory, 402 W. Sixth St. 924-R.

Arden, Philip, Chef in Dining-Hall, P. O. Box 522.

Austin, Luethel, Instructor in English.

Bath, Mrs. Lucile, Clerk in Comptroller's Office, California Apts. 1682-J.

Beckwith, Carolyn M., Secretary to President and Board of Regents, 638 Washington St. 1065-W.

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Blackler, William R., Instructor in Economics, Business and Sociology.

Blair, G. B., Associate Professor of Physics, 1059 Sierra St. 1293-R.

Blake, James T., Janitor, U. S. Bureau of Mines, 427 Toana St. 1026-R.

Boardman, Horace P., Professor of Civil Engineering and Director of the Engineering Experiment Station, 735 West St. 1884-J.

Brennen, Chester A., County Agent, Agricultural Extension Division, Elko.

Brown, Charles L., Instructor in Biology, 829 Lake St. 1323-W.

Bruce, Mrs. Martha, Secretary Agricultural Experiment Station, 411 W. Fourth St. 1308-M.

Buckman, Thomas, County Agent, Agricultural Extension Division, 682 Nevada St. 1016-J.

Carlsen, Mrs. Eda L., Clerk in Extension Division, 15 W. Taylor St. 1069-J.

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Clark, Walter E., President, University Campus. 959-W or J.

Cokefair, V. E., Assistant Food and Drug Laboratory. P. O. Box 801.

Couch, B. F., Mackay School of Mines.

Crandall, Dorothy, Instructor in Music.

Creel, Cecil W., Director, Agricultural Extension Division and County Agent Leader, 35 W. Taylor St. 1414-W.

Curtis, B. N., Carpenter, 527 Nevada St. 1382-W.

Davis, C. W., Assistant Chemist, Bureau of Mines, 121 Rock St. 1038-R.

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GENERAL INDEX

GENERAL INDEX

Figures at end of lines refer to pages.

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