UNIVERSITY OF NEVADA BULLETIN

VOL. XXX MAY 2, 1936 No. 3

THE UNIVERSITY OF NEVADA ANNOUNCEMENTS

1936-1937

With Record for 1935-1936

BRING THIS BULLETIN WITH YOU WHEN YOU COME TO REGISTER

PUBLISHED QUARTERLY BY THE UNIVERSITY OF NEVADA
RENO, NEVADA

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1936

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CONTENTS

OFFICE OF THE
BOARD OF REGENTS, UNIVERSITY OF NEVADA
RENO, NEVADA, APRIL 15, 1936

To His Excellency, RICHARD KIRMAN, SR., *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 1935–1936, 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:

GEORGE S. BROWN,
Chairman.

CAROLYN M. BECKWITH, *Secretary.*

UNIVERSITY CALENDAR

1936	First Semester	
August 22–23	Saturday-Sunday	Dormitories open to students
August 24–25	Monday-Tuesday	Examinations for admission
August 24–25	Monday-Tuesday	Reexamination to remove conditions
August 24–25	Monday-Tuesday	Matriculation and registration
August 26	Wednesday	Regular class work begins
September 7	Monday	Labor Day
September 15	Tuesday	Registration closes
October 14	Wednesday	Mid-semester reports are due
October 23–24	Friday-Saturday	Home Coming
November 11	Wednesday	Armistice Day
Nov. 26–29	Thursday-Sunday, inc.	Thanksgiving recess
December 19	Saturday noon	First semester closes
December 23	Wednesday noon	Final grades must be on file with Registrar
1937	Second Semester	
January 4–5	Monday-Tuesday	Matriculation and registration
January 6	Wednesday	Regular class work begins
January 26	Tuesday	Registration closes
March 3	Wednesday	Mid-semester reports are due
March 13	Saturday	Engineers' Day
March 20	Saturday	Mackay Day
March 26–28	Friday-Sunday, inc.	Easter recess
May 3	Monday	Senior standings must be on file with Registrar
May 7	Friday	Meeting of Honorary Board of Visitors
May 8	Saturday, 12 m.	Second semester closes
May 8	Saturday evening	Phi Kappa Phi address
May 9	Sunday	Baccalaureate Sunday
May 10	Monday	Commencement Day
May 12	Wednesday, 12 m.	Final grades must be on file with Registrar
August 23	First Semester of University year 1937–1938 opens	

OFFICERS OF THE UNIVERSITY

THE BOARD OF REGENTS

Hon. George S. Brown (1937)	Reno
Hon. George Wingfield (1939)	Reno
Hon. A. C. Olmsted (1941)	Wells
Hon. Frank Williams (1943)	Goodsprings
Hon. Silas E. Ross (1945)	Reno

OFFICERS OF THE BOARD

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Mr. George H. Taylor, Secretary Emeritus	Reno
Miss Carolyn M. Beckwith, Secretary	Reno

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Executive Committee—George S. Brown, George Wingfield, Silas E. Ross.
Property Committee—Silas E. Ross.
Instruction Committee—A. C. Olmsted.
Library Committee—Frank Williams.
Student-Welfare Committee—George S. Brown.

HONORARY BOARD OF VISITORS

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Hon. Philip Anker	Lovelock, Pershing County
Mrs. Will Cobb	Virginia City, Storey County
Hon. Joe F. McDonald	Reno, Washoe County
Hon. Miles E. Austin	McGill, White Pine County

ADMINISTRATIVE OFFICERS

Walter E. Clark, Ph.D.; LL.D., President.
Maxwell Adams, Ph.D., Vice President.
Charles H. Gorman, Comptroller.
Louise M. Sissa, Registrar.
Elizabeth S. True, B.A., Assistant Registrar.
Margaret E. Mack, A.M., Dean of Women.
Reuben C. Thompson, M.A., Dean of Men.
Joseph D. Layman, B.L., Emeritus Librarian.
Thea C. Thompson, Ph.B., Librarian.
Horace P. Boardman, C.E., Director of the Engineering Experiment Station.
Vincent P. Gianella, M.S., 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. Ethel Shurtleff, Matron University Hospital.
Claire Bemis, M.S., Matron of Manzanita Hall.
William R. Blackler,[1] M.S., Master of Lincoln Hall.

Colleges and Schools—

Maxwell Adams, Ph.D., Dean of College of Arts and Science.
Frederick H. Sibley, M.E., Dean of College of Engineering.
Robert Stewart, Ph.D., Dean of the College of Agriculture.
John W. Hall, M.A., Dean of the School of Education and Director of the Summer Session.
John Allen Fulton, E.M., Director of the Mackay School of Mines.

Public Service Division—

Walter S. Palmer, E.M., Director of the State Analytical Laboratory.
Vera Young, M.A., Acting 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.
John Allen Fulton, E.M., Director, State Mining Bureau.

[1]Absent on leave; Paul A. Harwood, M.A., Acting.

General Library Staff—

RUTH G. NASH, B.A., Assistant Librarian.
CLARE LOUISE JOHNSON, B.A., Cataloguer.
PRECIOUS NASH JOHNSON, B.S., Loan Desk Assistant.

Central Clerical Staff—

CAROLYN M. BECKWITH, Secretary to the President.
MRS. FREDA METCALF, Clerk, Comptroller's Office.
ALICE TERRY, Clerk, Comptroller's Office.
LOIS LAMERTON, Departmental Stenographer.

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, *ibid.*, 1910–1917; Extension Lecturer in Economics, Columbia University, 1916–1917; President, University of Nevada, September, 1917–.

MAXWELL ADAMS, Ph.D., Vice President; Professor of Chemistry; Dean of the College of Arts and Science.

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, *ibid.*, 1917–1918; Dean of the College of Arts and Science, *ibid.*, 1918–; Vice President of the University, 1922–.

[3]JAMES EDWARD CHURCH, JR., Ph.D., Professor and Head of the Department of 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, *ibid.*, 1894–1895; Associate Professor of the Latin Language and Literature, *ibid.*, 1895–1896; Professor of the Latin Language and Literature, *ibid.*, 1896–1918; Professor of the Classics, *ibid.*, 1918.

JEANNE ELIZABETH WIER, B.A., LL.D., Professor and Head of the Department 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, *ibid.*, 1901–1906; Professor of History and Political Science, *ibid.*, 1906–1917; Professor of History, *ibid.*, 1917–1921; Professor of History and Political Science, *ibid.*, 1921–.

PETER FRANDSEN, A.M., LL.D., Professor and Head of the Department 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, *ibid.*, 1902–1903; Professor of Zoology and Bacteriology, *ibid.*, 1903–1906; Professor of Biology, *ibid.*, 1906–.

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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 other 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 in rank.

HORACE PRENTISS BOARDMAN, C.E., Professor and Head of the School of Civil Engineering; 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, *ibid.*, 1921–.

LEON WILSON HARTMAN, Ph.D., Professor and Head of the Department 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, *ibid.*, 1906–1909; Professor of Physics, University of Nevada, 1909–.

FREDERICK WESTON WILSON, M.S., Professor and Head of the Department of Animal Husbandry.

B.S., Kansas State Agricultural College, 1905; M.S., University of Illinois, 1913; Assistant Professor of Animal Husbandry, in charge of Farmers' Institute Work, University of Arizona Agricultural Experiment Station, 1905–1906; Associate Professor of Animal Husbandry, *ibid.*, 1908–1912; Professor of Animal Husbandry, *ibid.*, 1912–1913; Professor of Animal Husbandry, University of Arizona, 1913–1914; Professor of Animal Husbandry, University of Nevada, 1914–.

REUBEN CYRIL THOMPSON, M.A., Professor and Head of the Department of Philosophy; Dean of Men.

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, *ibid.*, 1909–1910; Associate Professor of Latin and Greek, *ibid.*, 1910–1914; Professor of Latin and Greek, *ibid.*, 1914–1915; Professor of Philosophy, *ibid.*, 1915– Dean of Men, *ibid.*, 1932–.

WALTER S. PALMER, E.M., Professor and Head of the Department 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, *ibid.*, 1913–1916; Professor of Metallurgy, *ibid.*, 1916–; Director, State Analytical Laboratory, 1925–.

ALBERT ELLSWORTH HILL, A.B., Professor and Head of the Department of English.

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

JAMES REED YOUNG, Ph.D., Professor and Head of the Department 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, *ibid.*, 1917–1920; Professor of Psychology, *ibid.*, 1920–.

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

U. S. Military Academy, 1888; Professor of Military Science and Tactics, University of Nevada, 1917–1918; Commanding Officer, S. A. T. C., *ibid.*, October, 1918–January, 1919; Professor of Military Science and Tactics, *ibid.*, 1919–1928; Professor Emeritus of Military Science and Tactics, *ibid.*, 1928–.

STANLEY GUSTAVUS PALMER, M.E., Professor and Head of the School 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, *ibid.*, 1917–1918; Professor of Electrical Engineering, *ibid.*, September, 1918–.

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 and Head of the School 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, *ibid.*, 1921–.

ROBERT STEWART, Ph.D., Professor and Head of the Department 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, *ibid.*, 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 and Head of the School of Home Economics.

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

BENJAMIN FRANKLIN CHAPPELLE, Ph.D., Professor and Head of the Department 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; Officier d' Académie, 1934; Acting Head of the German Department, Dickinson College, 1910–1911; Instructor in French, Gettysburg College, 1911–1912; Head of the Department of Romanic Languages, *ibid.*, 1912–1916; Assistant Instructor in Romanic Languages, University of Pennsylvania, 1916–1917; Assistant Professor 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, *ibid.*, 1922–.

ELSA SAMETH, M.S., Professor and Head of the Department 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, *ibid.*, 1915–1918; Associate Professor, *ibid.*, 1918–1930; Professor of Physical Education for Women, *ibid.*, 1930–.

ALFRED LESLIE HIGGINBOTHAM, M.A., Professor of Journalism in the Department of English.

A.B., Oberlin College, 1920; A.M., *ibid.*, 1920; Correspondent for Ohio Metropolitan Newspapers, 1918–1920; Reporter, Copyreader and State Editor, Cleveland Plain Dealer, 1920–1922; Editorial Staff Nevada State Journal, summer of 1923; Contributor to Magazines and newspapers, 1918–; Instructor in English, University of Nevada, January, 1923–1924; Assistant Professor of English, *ibid.*, 1924–1926; Associate Professor of English, *ibid.*, 1926–1930; Professor of English, *ibid.*, 1930–1936; Professor of Journalism, *ibid.*, 1936–.

CHARLES ROGER HICKS, Ph.D., Professor of History and Political Science.

A.B., Clark University, 1915; A.M., Stanford University, 1922; Ph.D., Clark, 1931; 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, *ibid.*, 1925–1928; Associate Professor of History and Political Science, *ibid.*, 1928–1931; Professor of History and Political Science, *ibid.*, 1931–.

FREDRICK WOOD, Ph.D., Professor and Head of the Department of Mathematics.

A. B., University of Wisconsin, 1915; M.A., *ibid.*, 1916; Ph.D., *ibid.*, 1923; Instructor in Engineering Mathematics, University of Wisconsin, 1915–1917, 1919–1923; Head of Department of Mathematics, State Normal School, Indiana (Pennsylvania), 1923–1924; Lake Forest College, 1924–1925; Georgia Wesleyan College, 1925–1928; Hamline University (Minnesota), 1928–1932; Professor of Mathematics, University of Nevada, 1932–.

WILLIAM L. REED, Colonel, Infantry, United States Army, Professor of Military Science and Tactics.

Second Lieutenant, U. S. A., 1899; First Lieutenant, 1901; Graduate Infantry and Cavalry School, 1904; Major, U. S. A., 1917; Colonel of Infantry (National Army), 1918; Graduate Staff School, Langres, France, 1918; Lieut. Colonel, U. S. A., 1920; Colonel, 1923; Graduate Command and General Staff School, 1924; General Staff Corps Eligible List; Professor of Military Science and Tactics, University of Nevada, 1935–.

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

B.S., North Dakota State Agricultural College, 1922; Teaching Fellow in Physics, University of California, 1922–1925; Ph.D., University of California, 1925; Instructor in Physics, University of Nevada, 1925–1926; Assistant Professor of Physics, *ibid.*, 1926–1929; Associate Professor of Physics, *ibid.*, 1929–1935; Professor of Physics, *ibid.*, 1935–.

VINCENT P. GIANELLA, M.S., Professor and Head of the Department of Geology.

B.S. in E.E., Oregon Agricultural College, 1910; B.S., Oregon School of Mines, 1911; M.S., Mackay School of Mines, University of Nevada, 1920; Instructor in Metallurgy, University of Nevada, Mackay School of Mines, 1923–1924; Instructor in Geology, *ibid.*, 1924–1928; Assistant Professor of Geology, *ibid.*, 1928–1929; Associate Professor of Geology, *ibid.*, 1929–1935; Acting Head of the Department of Geology, *ibid.*, 1932–1935; Professor and Head of the Department of Geology, *ibid.*, 1935–.

Associate Professors[1]

KATHERINE LEWERS, Associate Professor of Freehand Drawing and Head of the Department of Art.

Instructor in Freehand Drawing, University of Nevada, 1905–1907; Assistant Professor of Freehand Drawing, *ibid.*, 1907–1914; Associate Professor of Freehand Drawing, *ibid.*, 1914–.

KATHARINE RIEGELHUTH, A.M., Associate Professor of English.

B.A., University of Nevada, 1897; A.M., Columbia University, 1913; Instructor in German, University of Nevada, 1905–1916; Assistant Professor of German, *ibid.*, 1916–1917; Associate Professor of German, *ibid.*, 1917–1922; Associate Professor of English, *ibid.*, 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, *ibid.*, 1917–1922; Associate Professor of Biology, *ibid.*, 1922–; Dean of Women, *ibid.*, 1918–.

MEREDITH RAINES MILLER, M.S., Associate Research Professor of Agricultural Chemistry.

B.S., University of California, 1912; M.S., University of Nevada, 1927; 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, University of Nevada, 1922–.

MARY E. BUOL, B.S., Associate Professor of Agricultural Extension in the College of Agriculture.

B.S., St. Lawrence University, 1912; Home Economics Teacher, Swarthmore High School, 1912–1914; Home Economics Teacher, East Orange High School, 1914–1915; Home Economics Department Head, Germantown High School, 1915–1917; Emergency Home Demonstration Agent, University of Minnesota, 1917; County Home Demonstration Agent, Minnesota, 1918–1921; Assistant Director of Agricultural Extension and Associate Professor of Agricultural Extension in the College of Agriculture, University of Nevada, 1922–.

SILAS CALVIN FEEMSTER, A.M., Associate Professor of History and Political Science.

A.B., Drury College, 1907; A.M., University of Nebraska, 1912; Professor of Latin and History, York College, 1907–1910; Assistant in History and Political Science, University of Nevada, 1913–1915; Instructor in History and Political Science, *ibid.*, 1915–1916; Assistant Professor of History, *ibid.*, 1917–1924; Associate Professor of History and Political Science, *ibid.*, 1924–.

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

A.B., Tabor College, 1902; A.M., Washburn College, 1904; Assistant in Physics and Astronomy, Washburn College, 1904–1905; Assistant in Alleghany Observatory, 1905–1906; Professor of Physics, Morningside College, 1907–1909; Instructor and Assistant Professor of Physics, Oregon Agricultural College, 1912–1919; Assistant Professor of Physics, University of Nevada, 1919–1924; Associate Professor of Physics, *ibid.*, 1924–1935; Associate Professor of Physics and Astronomy, *ibid.*, 1935–.

EDWARD G. SUTHERLAND, A.B., Associate Professor and Acting Head of the Department of Economics, Business and Sociology.

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

[1]Order of seniority in rank.

THOMAS E. BUCKMAN, M.S., Associate Professor of Agricultural Extension.
B.S., University of Nevada, 1921; M.S., *ibid.*, 1933; County Agricultural Agent, Lyon County, 1921–1922; County Agricultural Agent, Washoe County, 1923–1924; Acting Assistant Director, Nevada Agricultural Extension, University of Nevada, 1925–1926; Assistant Director of Agricultural Extension and Associate Professor of Agricultural Extension in the College of Agriculture, University of Nevada, 1926–.

VICTOR ELWIN SPENCER, M.S., Associate Professor of Soils Research in the Nevada Agricultural Experiment Station.
B.S., University of Illinois, 1915; M.S., *ibid.*, 1926; Associate in Soil Fertility, *ibid.*, 1919–1927; Associate Professor of Soils Research in Nevada Agricultural Experiment Station, 1928–.

JESSIE P. POPE, M.A., Associate Professor of Home Economics.
B.S., University of Nebraska, 1913; M.A., Columbia, 1926; Instructor in Home Economics, University of Nevada, 1918–1927; Assistant Professor of Home Economics, *ibid.*, 1927–1929; Associate Professor of Home Economics, *ibid.*, 1929–.

LYMAN R. VAWTER, D.V.M., M.S., Associate Research Professor of Veterinary Science.
D.V.M., Kansas State Agricultural College, 1918; M.S., Cornell University, 1931; Veterinary Inspector U. S. Bureau of Animal Industry, 1918; Assistant in Veterinary Pathology, Kansas State Agricultural College, 1918–1919; Instructor in Veterinary Pathology, *ibid.*, 1919–1920; Pathologist Nevada Agricultural Experiment Station 1920–; Assistant Research Professor of Veterinary Science, 1922–1929; Associate Research Professor of Veterinary Science, 1929–.

JOHN R. GOTTARDI, M.A., Associate Professor of Modern Languages.
B.A., University of Nevada, 1921; M.A., *ibid.*, 1926; Instructor in Modern Languages, University of Nevada, 1922–1924; Professor of Modern Languages, San Rafael Military Academy, 1924–1926; Assistant Professor of Modern Languages, University of Nevada, 1926–1930; Associate Professor of Modern Languages, *ibid.*, 1930–.

PAUL ATKINS HARWOOD, M.A., Associate Professor of English.
B.A., University of Nevada, 1924; M.A., *ibid.*, 1929; In residence at Oxford University, England, as Nevada Rhodes Scholar, 1924–1927; Instructor in English, University of Nevada, 1927–1929; Assistant Professor of English, *ibid.*, 1929–1930; Associate Professor of English, *ibid.*, 1930–; Acting Master of Lincoln Hall, 1932–.

S. ALLAN LOUGH, Ph.D., Associate Professor of Chemistry.
A.B., University of Denver, 1924; M.S., University of Michigan, 1927; Ph.D., *ibid.*, 1933; Teacher of Organic Chemistry, University of Denver Dental College, 1923–1924; Research Assistant in Physiological Chemistry, Medical School, University of Michigan, 1924–1925 and 1927; Instructor in Chemistry, University of Nevada, 1928–1929; Assistant Professor of Chemistry, *ibid.*, 1929–1933; Associate Professor of Chemistry, *ibid.*, 1933–.

MERYL WILLIAM DEMING, Ph.D., Associate Professor of Chemistry.
B.S., University of Oregon, 1923; M.S., *ibid.*, 1925; Ph.D., University of Washington, 1928; Instructor in Chemistry, Oregon State College, 1928–1929; Instructor in Chemistry, University of Nevada, 1929–1930; Assistant Professor of Chemistry, *ibid.*, 1930–1933; Associate Professor of Chemistry, *ibid.*, 1933–.

WILLIAM I. SMYTH, E.M., Associate Professor of Metallurgy and Analyst in State Mining Laboratory.
B.S., University of Nevada, 1914; E.M., *ibid.*, 1927; Instructor in Metallurgy and Analyst in State Mining Laboratory, University of Nevada, 1925–1928; Assistant Professor of Metallurgy and Analyst, *ibid.*, 1928–1933; Associate Professor of Metallurgy and Analyst, *ibid.*, 1933–.

EDITH M. RUEBSAM, M.A., Associate Professor of Education.
B.A., Columbia, 1921; M.A., California, 1934; Demonstration Teacher of Kindergarten and Teacher Training, San Jose (California) State Teachers College, 1915–1924; Supervisor of Rural Schools, Sonoma County, California, 1924–1925; Assistant Professor of Education, University of Nevada, 1925–1935; Associate Professor of Education, *ibid.*, 1935–.

IRVING JESSE SANDORF, M.S., Associate Professor of Electrical Engineering.
B.S. in E.E., University of Michigan, 1923; M.S., Nevada, 1931; Research Engineer, Development and Research Department, American Telephone and Telegraph Company, 1923–1926, 1927–1928; Instructor in Electrical Engineering, University of Nevada, 1928–1931; Assistant Professor of Electrical Engineering, *ibid.*, 1931–1935; Associate Professor of Electrical Engineering, *ibid.*, 1935–.

CLAUDE CARSON SMITH, M.A., Associate Professor of History and Political Science.
A.B., Carson-Newman College, 1921; M.A., University of Oklahoma, 1924; Instructor in Social Science, Kansas City University, 1927–1929; Instructor in History and Political Science, University of Nevada, 1929–1930; Assistant Professor of History and Political Science, *ibid.*, 1930–1935; Associate Professor of History and Political Science, *ibid.*, 1935–.

MILAN J. WEBSTER, Ph.D., Associate Professor of Economics, Business and Sociology.
B.E., Nebraska Normal College, 1908; B.A., University of Nevada, 1929; M.A., *ibid.*, 1931; Ph.D., Colorado, 1934; Assistant in Psychology, Nebraska Normal College, 1907–1908; Instructor in Education, *ibid.*, 1908–1909; Assistant in Economics, Business and Sociology, University of Nevada, 1928–1929; Instructor in Economics, Business and Sociology, *ibid.*, 1929–1931; Assistant Professor of Economics, Business and Sociology, *ibid.*, 1931–1935; Associate Professor of Economics, Business and Sociology, *ibid.*, 1935–.

HAROLD N. BROWN, Ph.D., Associate Professor of Education.
B.S., Kansas State Teachers College, 1923; A.M., Stanford, 1927; Ph.D., California, 1935; Teacher in Clifton, Kansas, Elementary Schools, 1918–1920; Superintendent of Tampa, Kansas, Schools, 1923–1926; Critic, Junior High School, Arizona State Teachers College, 1927–1930; Instructor in Summer Session, Kansas State Teachers College, 1928; Assistant Professor of Education, University of Nevada, 1930–1935; Associate Professor of Education, *ibid.*, 1935–.

CHESTER M. SCRANTON, M.A., Associate Professor of Physical Education and Athletics for Men.
B.A., University of Nevada, 1924; M.A., *ibid.*, 1928; Instructor in Physical Education for Men, University of Nevada, 1928–1929; Assistant Professor of Physical Education for Men, *ibid.*, 1929–1936; Acting Head of Department, *ibid.*, 1929–1930; Associate Professor of Physical Education and Athletics for Men, 1936–.

Assistant Professors[1]

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

[1]Order of seniority in rank.

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

B.A., Utah Agricultural College, 1917; County Agricultural Agent, Unitah County (Utah), 1917–1921; County Agricultural Agent, Clark County, 1921–1923; District Extension Agent, Clark and Lincoln Counties, 1924–; Assistant Professor of Agricultural Extension in the College of Agriculture, University of Nevada, 1924–.

WILLIAM REGINALD BLACKLER, M.S., Assistant Professor of Economics, Business and Sociology; Master of Lincoln Hall.

B.S., University of Utah, 1924; M.S., University of California, 1925; Instructor in Economics, Business and Sociology, University of Nevada, 1925–1928; Assistant Professor of Economics, Business and Sociology, *ibid.*, 1928–; Master of Lincoln Hall, *ibid.*, 1929–.

ORPHA A. MILLER, B.A., Assistant Professor of Agricultural Extension.

B.A., Indiana State University, 1913; Teacher of Home Economics, High School, Carlisle, Indiana, 1915–1916; Teacher of Home Economics, High School, Los Angeles, California, 1919–1922; Home Demonstration Agent, Imperial County, California, 1922–1927; District Extension Agent, Clark and Lincoln Counties, 1928–; Assistant Professor of Agricultural Extension in the College of Agriculture, University of Nevada, 1929–.

JOSEPH WILLIS WILSON, B.S., Assistant Professor of Agricultural Extension.

B.S., University of Nevada, 1913; County Agricultural Agent, Lyon County, 1917–1920; Humboldt County, 1921–1925; Elko County, 1925–1928; District Extension Agent, Northern Eureka and Elko Counties, 1929–; Assistant Professor of Agricultural Extension in the College of Agriculture, University of Nevada, 1929–.

CHARLES LEROY BROWN, M.A., Assistant Professor of Biology.

B.A., University of Nevada, 1912; M.A., *ibid.*, 1913; Instructor in Biology, University of Nevada, 1918–1929; Assistant Professor of Biology, *ibid.*, 1929–.

RALPH A. IRWIN, M.S., Assistant Professor of Psychology.

B.S., Kansas State Agricultural College, 1928; M.S., *ibid.*, 1929; Instructor in Psychology, University of Nevada, 1929–1931; Assistant Professor of Psychology, *ibid.*, 1931–.

VERNER E. SCOTT, M.S., Assistant Professor of Agricultural Extension.

B.S., University of Wisconsin, 1911; M.S., Nevada, 1933; Instructor in Dairying, University of Nevada, 1912–1915; Acting Instructor in Animal Husbandry, *ibid.*, 1913–1914; Professor of Dairying, *ibid.*, 1919–1929; Professor of Dairying and Poultry, *ibid.*, 1929–1931; Dairy and Poultry Specialist, Agricultral Extension Department, 1915–1930; Extension Agricultural Economist, Agricultural Extension Department, 1930–; Assistant Professor of Agricultural Extension in the College of Agriculture, University of Nevada, 1932–.

LEWIS E. CLINE, M.S., Assistant Professor of Agricultural Extension.

B.S. in Agriculture, University of Missouri, 1905; M.S. in Agriculture, University of Wisconsin, 1907; Chemist, Missouri Food and Drug Commission, 1907–1908; Agriculturist, U. S. Department of Agriculture, 1914–1926; District Extension Agent, Churchill and Lyon Counties, Nevada, 1926–1930; Extension Agricultural Economist, University of Nevada, 1930–; Assistant Professor of Agricultural Extension in the College of Agriculture, University of Nevada, 1932–.

HELLEN M. GILLETTE, B.A., Assistant Professor of Agricultural Extension.

B.A., University of Montana, 1919; Assistant Instructor, Michigan Agricultural College, 1919; Instructor in Food and Dietetics, High School, Great Falls, Montana, 1920; Nutrition Specialist, American Red Cross, 1921–1924; Field Representative, American Red Cross, 1925–1928; Home Demonstration Agent, St. Louis County, Minnesota, 1929–1931; District Extension Agent, White Pine, Lincoln and Eureka Counties, 1932–; Assistant Professor of Agricultural Extension in the College of Agriculture, University of Nevada, 1932–.

MAE BERNASCONI–SIMAS, M.S., Assistant Professor of Physical Education for Women.

B.A., University of Nevada, 1928; M.S., *ibid.*, 1932; Instructor in Physical Education for Women, University of Nevada, 1928–1932; Acting Head of Department, *ibid.*, 1929–1930; Assistant Professor of Physical Education, *ibid.*, 1932–.

HENRY WYATT ISBELL, Captain, U. S. A., Assistant Professor of Military Science and Tactics; Commandant of Cadets.

First Lieutenant, Av. Sec. Sig. O. R. C., 1917; First Lieutenant of Infantry, 1920; Captain of Infantry, 1928; Graduate of Infantry School, Basic Course, 1921; Adjutant of American Electoral Mission in Nicaragua, 1928; Secretary, Bolivia-Paraguay Conciliation Commission, 1929; Assistant Professor of Military Science and Tactics, University of Nevada, 1934–.

LORETTA ROSE MILLER, M.S., Assistant Professor of Biology.

B.S., University of Nevada, 1929; M.S., *ibid.*, 1933; Instructor in Biology, University of Nevada, 1929–1935; Assistant Professor of Biology, *ibid.*, 1935–.

ALDEN J. PLUMLEY, M.A., Assistant Professor of Economics, Business and Sociology.

B.A., Nevada, 1929; A.M., Brown, 1932; Instructor in Economics, Business and Sociology, University of Nevada, 1931–1935; Assistant Professor of Economics, Business and Sociology, *ibid.*, 1935–.

HAROLD CLARK AMENS, M.S., Assistant Professor of Mechanical Engineering.

B.S., Nevada, 1928; M.S., *ibid.*, 1933; Instructor in Engineering, University of Nevada, 1930–1935; Assistant Professor of Mechanical Engineering, *ibid.*, 1935–.

ROBERT STUART GRIFFIN, B.S., Assistant Professor of English.

B.S., Oregon State College, 1928; Instructor in Public Speaking, Oregon State College, 1927; Instructor in English, University of Nevada, 1928–1936; Assistant Professor of English, *ibid.*, 1936–.

HORACE CROOKMAN AYRES, Ph.D., Assistant Professor of Mathematics.

B.S., University of Washington, 1931; M.S., *ibid.*, 1931; Ph.D., University of California, 1935; Teaching Assistant, University of Washington, 1929–1930; Teaching Fellow, *ibid.*, 1931–1932; Teaching Assistant, University of California, 1934–1935; Instructor in Mathematics, University of Nevada, 1935–1936; Assistant Professor of Mathematics, *ibid.*, 1936–.

HARRY EUGENE WHEELER, Ph.D., Assistant Professor of Geology.

B.S., University of Oregon, 1930; M.A., Stanford University, 1932; Ph.D., *ibid.*, 1935; Teaching Assistant, University of Oregon, 1928–1930; Field Assistant, United States Geological Survey, 1930; Research Fellow in Geology, Stanford University, 1930–1933; Recorder, United States Geological Survey, 1935; Instructor in Geology, University of Nevada, 1935–1936; Assistant Professor of Geology, *ibid.*, 1936–.

DOUGLAS DASHIELL, M.A., Assistant Professor of Physical Education and Athletics for Men.
B.A., Southwestern University, 1928; M.A., University of Southern California, 1933; Director of Athletics and Coach, La Feria High School, 1928–1929; Director of Athletics and Varsity Coach, Temple Junior College, 1929–1931; Vice Principal, Director of Athletics and Coach, Las Vegas High School, 1931–1936; Assistant Professor of Physical Education and Athletics for Men, University of Nevada, 1936–.

JAMES W. COLEMAN, M.A., Assistant Professor of Physical Education and Athletics for Men.
B.S., University of Arkansas; M.A., University of Iowa, 1936; Coach, Tupelo Military Institute, 1920–1922; Director of Physical Education and Athletics, Georgetown College, 1922–1925; Acting Director of Athletics and Head Coach of all Sports, University of Akron, 1925–1926; Coach and Director of Health and Physical Education, State Teachers College, Minot, North Dakota, 1926–1936; Assistant Professor of Physical Education and Athletics for Men, University of Nevada, 1936–.

Instructors[1]

BERTRAND FRANKLIN COUCH, Instructor in Mine Accounting.
Instructor in Mine Accounting, University of Nevada, 1924–.

GRANT H. HUSTIS, Sergeant, U. S. A., Instructor in Military Science and Tactics.
Instructor in Military Science and Tactics, University of Nevada, 1928–.

LAWTON B. KLINE, M.A., Instructor in Modern Languages.
B.A., University of Nevada, 1926; M.A., *ibid.*, 1928; Assistant in Modern Languages, University of Nevada, 1928–1931; Instructor in Modern Languages, *ibid.*, 1931–.

JACK TORNEY RYAN, Instructor in Shop Practice and Superintendent of Shops.
Instructor in Shop Practice and Superintendent of Shops, University of Nevada, 1931–.

CLARENCE J. THORNTON, B.S., Instructor in Poultry Husbandry.
B.S., Nevada, 1926; Assistant in Poultry, University of Nevada, 1932; Instructor in Poultry Husbandry, *ibid.*, 1933–.

GEORGE ERNEST BROOKS, B.S., Instructor in Dairying.
B.S., Nevada, 1927; Assistant in Dairying, University of Nevada, 1932; Instructor in Dairying, *ibid.*, 1933–.

WILLIAM C. MILLER, M.A., Instructor in English.
B.S. in Speech, University of Southern California, 1931; M.A., *ibid.*, 1932; Substitute Teacher, University of Southern California, 1931–1932; Fellow in English, University of Nevada, 1932–1934; Instructor in English, *ibid.*, 1934–.

GORDON L. ROBERTSON, M.S., Instructor in Economics, Business and Sociology.
B.A., Nevada, 1932; M.S., *ibid.*, 1934; Fellow in Economics, Business and Sociology, University of Nevada, 1932–1933; Instructor in Economics, Business and Sociology, 1933–.

EMILY ROSS, M.A., Instructor in Mathematics.
B.A., Stanford University, 1934; M.A., University of Nevada, 1935; Instructor in Mathematics, University of Nevada, 1935–.

[1]Order of seniority in rank.

FRED J. COLLINS, M.A., Instructor in Economics.
B.A., Nevada, 1932; M.A., Clark University, 1934; Teaching Fellow in Economics, University of Nevada, 1932–1933; Instructor in Economics, *ibid.*, 1935–.

MARY M. PATTIE, B.S., Part-time Instructor in Home Economics.
B.S., Washington State College, 1931; Part-time Instructor in Home Economics, University of Nevada, 1934–1936.

Lecturers, Fellows, and Assistants

BENSON DILLON BILLINGHURST,[1] 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, 1908–1935; Lecturer in Education, University of Nevada, 1920–1935.

CLYDE D. SOUTER, LL.B., Lecturer in Law in the Department of Economics, Business and Sociology.
A.B., Dartmouth College, 1906; LL.B., New Jersey Law School, 1911; Instructor, New Jersey Law School, 1914–1915; Assistant Professor, *ibid.*, 1916–1918; Professor of Law, *ibid.*, 1918–1922; Lecturer in Law, University of Nevada, 1926–.

E. OTIS VAUGHN, B.S., Lecturer in Education.
B.S., Beloit College, Wisconsin, 1907; Vice Principal, Carson City High School, 1908–1910; Principal, Douglas County High School, 1910–1913; Assistant in Physics, University of California, 1913–1914; Instructor in Chemistry, San Francisco Polytechnic High School, 1914–1918; Principal, Reno High School, 1918–1935; Superintendent, Reno School System, 1935–.

ROBERT B. JEPPSON, B.S., Lecturer in Education.
B.S., Utah Agricultural College, 1924; Nevada State Supervisor of Agricultural Education, 1926–; Lecturer in Education, University of Nevada, 1928–.

BERTHA V. AKIN, B.S., Lecturer in Vocational Home Economics.
B.S., University of Nevada, 1925; Nevada State Supervisor of Home Economics, 1931–; Lecturer in Vocational Home Economics, University of Nevada, 1931–.

RUTH MILLER FERRIS, B.A., Assistant in French.
B.A., Nevada, 1916; Fellow in English, University of Nevada, 1932–1934; Assistant in French, *ibid.*, 1934–.

ROBERT ADAIR LONG, A.B., Fellow in English.
A.B., Stanford, 1934; Fellow in English, University of Nevada, 1934–.

KENNETH STEPHEN KARSTEN, A.B., Fellow in Chemistry.
A.B., Hope College, 1935; Assistant in Chemistry, *ibid.*, 1933–1935; Fellow in Chemistry, University of Nevada, 1935–.

[1]Died in service December 3, 1935.

UNIVERSITY STANDING COMMITTEES

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

Admission, Entrance Examinations, and Advanced Standing—
G. W. Sears, C. R. Hicks, S. G. Palmer.

American-Scandinavian Scholarship Nominating Committee—
R. Stewart, P. Frandsen, L. W. Hartman.

Assemblies and Lectures—
Harold N. Brown, C. C. Smith, Irving J. Sandorf.

Athletics—
Paul A. Harwood, Fredrick Wood, F. W. Wilson.

Campus Calendar—
Miss Mack, R. C. Thompson, T. H. Post, H. N. Brown, R. S. Griffin, Wm. Miller.

Campus Employment—
Miss Mack, Paul A. Harwood, J. B. Lynch.

Graduate—
M. Adams, R. Stewart, J. R. Young.

Health—
P. Frandsen, J. E. Martie, Miss Sameth.

High School Relationships—
F. W. Traner, Miss Riegelhuth, Miss Pope.

Library—
A. E. Hill, Miss Wier, S. G. Palmer, B. F. Chappelle, Miss Thompson.

National Youth Administration Employment—
Miss Mack, R. C. Thompson, P. A. Harwood, J. B. Lynch.

Registration and Scholarship—
M. Adams, R. Stewart, F. H. Sibley, J. W. Hall, J. A. Fulton, Miss Sissa, Mrs. True.

Rhodes Scholarship Nominating Committee—
M. Adams, R. C. Thompson, S. W. Leifson.

Schedules—
H. P. Boardman, P. A. Lehenbauer, H. C. Amens.

Scholarships and Prizes—
J. A. Carpenter, Miss Lewis, S. A. Lough.

Student Affairs—
R. C. Thompson, Miss Mack, P. A. Harwood.

Teacher Appointment—
F. W. Traner, J. W. Hall.

Vocational Guidance—
J. R. Young, A. L. Higginbotham, J. A. Carpenter.

Chief Marshal of Formal Assemblies—
Colonel William L. Reed, U. S. A.

THE HISTORY AND DEVELOPMENT OF THE UNIVERSITY

1862—*The Morrill Land Grant.* By the terms of this grant the State of Nevada received a donation of 90,000 acres of land, in 1866, "for the endowment, support and maintenance of at least one college whose leading object shall be, without excluding other scientific and classical studies and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts." The land in this State is known as the "90,000-Acre Grant," and the sales of this land have amounted to $123,071.72, 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 purpose of endowment of the universities in the State. The fund from the sale of this land now amounts to $58,215.79.

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—Administration of President LeRoy D. Brown began. Student enrollment in 1887–1888 was 50. The faculty consisted of 2 members, President Brown and Professor Hannah K. Clapp. During the first year 2 additional members were added, and by the end of the second year the faculty numbered 7.

During the first year 5 departments were recognized, although not fully organized. They were the Liberal Arts, the Mining, the Normal, the Agricultural, and the Business Schools.

1888—The School of Mines was organized, with Robert D. Jackson, Ph.B., as Director. The Normal School was organized, with Miss Kate N. T. Tupper as the head. The Military Department was organized, with Lieutenant Arthur C. Ducat, Jr., as commandant.

1889—*The Hatch Act.* The Agricultural Experiment Station was organized, President Brown acting as Director. By an Act of Congress passed March 2, 1887, known as the Hatch Act, which was accepted by this State, there was established, in connection with the colleges founded upon the Congressional Act of 1862, agricultural experiment stations, "to aid in the acquiring and diffusion among the people of the United States of useful and practical information on subjects connected with agriculture, and to promote scientific investigation and experiment respecting the principles and applications of agricultural science." The Hatch Act of 1887 appropriated $15,000 annually for this support.

1889—The first graduates from the State Normal School.

1889—Administration of President Brown ended December 31.

1890—Administration of President Stephen A. Jones began on January 6.

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 on June 30.

1894—Administration of President Joseph Edward Stubbs began July 1.

1895—The State Analytical Laboratory was organized under provisions of an Act of the Nevada Legislature of March 16, 1895.

1898—The first graduate in Civil Engineering.

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.

1901—The first graduates in Mechanical Engineering.

1904—The tridecennial celebration of the establishment of the University was held.

1906—*The Adams Act.* Congress, under Act dated March 16, 1906, known as the Adams Act, provided for additional appropriation for the support of the Agricultural Experiment Station, limiting the money's use to necessary expenses of original research and experimental work in agriculture. This grant amounts to $15,000 per year.

1907—*The Nelson Fund.* An Act of Congress of March 4, 1907, carried with it an appropriation for the further support of the universities established under the Morrill Act of 1862. The present appropriation under this fund amounts to $25,000 per year.

1907—Mrs. John W. Mackay and Mr. Clarence H. Mackay began a donation to the University which founded the Mackay School of Mines, the Mackay Athletic Field, and the Mackay Training Quarters, and contributed $25,000 toward the beautifying of the Campus. They also presented a statue in bronze by Gutzon Borglum of John W. Mackay, one of the pioneers of the Comstock.

1909—State Hygienic Laboratory was organized under provisions of the Act of the Nevada Legislature, approved March 25, 1909.

1910—Laboratory for Pure Foods and Drugs and Weights and Measures was established under provisions of Act of the Nevada Legislature of 1909, effective from January 1, 1910.

1911—Twenty-fifth anniversary of the establishment of the University at Reno, celebrated by Silver Jubilee and home-coming of former students and graduates.

1912—Mrs. John W. Mackay and Mr. Clarence H. Mackay presented to the University Board of Regents $150,000 as an endowment for the Mackay School of Mines.

1914—Administration of President Stubbs closed with his death on May 27.

1914—By an Act of Congress known as the "Smith-Lever Act," there was established a fund for the purpose of agricultural extension. The fund, amounting to $10,000 the first year, increased each year until it amounted in 1923 and thereafter, to $15,699 per year.

1914—September 14, administration of President Archer B. Hendrick began.

1915—State Veterinary Control Service was organized under provisions of an Act of the Nevada Legislature, approved March 11, 1915.

1915—The first graduates in Electrical Engineering.

1917—University Farm of 213 acres purchased.

1917—May 1, administration of President Hendrick ended.

1917—September 1, administration of President Walter Ernest Clark began.

1917—Mrs. W. A. Clark, Jr., established an annual scholarship of $250 in memory of her mother, Katherine Hays McManus, which, after Mrs. Clark's death, was continued by William Andrews Clark, Jr., in his wife's memory until his own death in 1934.

1918—*The Smith-Hughes Act.* An Act of Congress passed 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 provides the Nevada vocational-teacher training in accord with the Smith-Hughes Act, being granted special federal and state funds for this purpose. This work began at the University in January, 1918.

1918—First training detachment of 103 soldier students from June 15 to August 13; second training detachment of 103 soldier students from August 15 to October 12; Collegiate Section A—79 soldier students from October 1 to December 21; Vocational Section B—212 soldier students from October 15 to December 21.

1920—The School of Education was organized.

1920—The Rare and Precious Metals Federal Mining Experiment Station was assigned to the University July 8, 1920, by the Federal Bureau of Mines.

1920—A Federal Radio Station was established on the University Campus in September, 1920. The operant station and the government wireless laboratory were both housed in the smaller of the two Barracks buildings until 1924 when this station was transferred to the Federal Aviation Field south of Reno, now the Municipal Airport.

1920—The University of Nevada was placed on the approved list of the Association of American Universities in November.

1921—An Engineering Experiment Station was established.

1924—The Semicentennial of the University was celebrated in May with a home-coming of former students and graduates. Actual University work first began in Elko in 1874.

1924—The Robert Lardin Fulton Lecture Foundation was established.

1925—Mr. Clarence H. Mackay began his additional gift of $18,000 per year, for five years, to the Mackay School of Mines.

1925—*The Purnell Act.* An Act of Congress passed in February, 1925, under which the income of the University's Agricultural Experiment Station was increased to $50,000 for the year beginning July, 1925, and was further increased $10,000 per year until the annual income reached $90,000 in 1929.

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

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

1927—Presentation of Memorial Library, completely furnished, to University by Mr. William Andrews Clark, Jr., October 21. This building, including the gift furnishings, cost approximately $250,000.

1928—Mr. Clarence H. Mackay and his mother gave the University seven beautifully bound volumes of the *Virginia City Enterprise*—a nearly complete file of this rare newspaper for the years 1866 to 1872, inclusive.

1928—Mr. Clarence H. Mackay gave $6,500 to aid in collecting historical Comstock Lode material for Mackay School of Mines Museum.

1928—Mr. George Wingfield financed the construction of a retaining wall back of the Engineering Buildings.

1928—Mr. Thomas F. Cole financed important improvements on the Lincoln Hall Men's Dormitory.

1928—*The Capper-Ketcham Act.* An Act of Congress was passed in May, 1928, under which the income of the University's Agricultural Extension Department was increased $20,000 per year beginning with July, 1928.

1929—Construction begun on Mackay Science Hall. This $415,000 building, gift of Mr. Clarence H. Mackay, houses the Departments of Chemistry, Physics, and Mathematics.

1929—Under Act of March 29, 1929, the Nevada Legislature established a State Bureau of Mines, putting control under the Board of Regents of the University.

1929—Mr. Clarence H. Mackay gave $27,500 to enlarge the Stadium and refurnish the Training Quarters, presented the Walther Library of Desert Geology to the Mackay School of Mines and arranged to continue indefinitely the $18,000 a year to this School.

1930—Dedication and Presentation of Mackay Science Hall to the University by Mr. Clarence H. Mackay, October 24.

1931—Under Act of March 25, 1931, the Nevada Legislature transferred to the University of Nevada the land and buildings formerly used by the Nevada Historical Society.

1932—Mr. Clarence H. Mackay gave $150 to purchase a file of the Virginia Evening Bulletin covering the entire period of publication from July 6, 1863, to May 16, 1864. So far as is known this is the only complete file of this paper in existence.

1933–1936—Beginning with the summer of 1933 and continuing through 1936 repair and improvement projects were financed by the various Federal Employment Relief Administration Funds. Many campus buildings were repainted, roads were improved, retaining walls erected, the spur railway relaid over a better campus site, the Mackay Field improved, an addition made to the greenhouse and several laboratories rewired and otherwise improved.

1934—Through the Federal Public Arts Project Committee for Nevada the University was presented with twenty-four charcoal drawings of Nevada Indian subjects by Robert Caples. These framed drawings are in the University Library.

1935—The Carnegie Foundation presented to the University a college music set consisting of a Capehart phonograph, 824 classified records, 251 scores and 129 volumes on music with cabinets for the records and the scores. This set is valued at $2,500.

1935—The Bankhead - Jones Act, passed in June, 1935, authorized increased Federal funds for resident teaching, agricultural extension and agricultural experimentation to all Land-Grant Colleges having these three divisions of service. The University of Nevada thereby is receiving added funds in all three of these lines of its service.

1935—The Regents, in June, 1935, established the S. Frank Hunt Foundation with gifts of valuable mining stock, cash and automobiles made by Mr. S. Frank Hunt, discoverer of the Rio Tinto mine at Mountain City, Nevada. This foundation, in accord with the desire of the donor, will cover the expenses of field trips for geologic study and for mineral prospecting by supervised groups of students of the Mackay School of Mines.

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) Agricultural Extension Department.
   (c) State Analytical Laboratory.
   (d) State Bureau of Mines.
   (e) State Hygienic Laboratory.
   (f) Pure Food and Drugs Control and Weights and Measures.
   (g) State Veterinary Control Service.
   (h) United States Bureau of Mines Experiment Station.

COLLEGES, SCHOOLS, AND AFFILIATED ORGANIZATIONS

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 decree 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, two years of 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 to benefit 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. Due to financial stringency, the Summer Session will not be conducted in 1936.

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, or mining geologists, and a one-year graduate course leading to the degree of Master of Science in Mining Engineering in Geology or in Metallurgy. 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 five 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, and in Civil Engineering. The shops are well equipped, and the laboratories offer most excellent facilities for practical work.

ENGINEERING EXPERIMENT STATION

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

THE COLLEGE OF AGRICULTURE

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

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

AGRICULTURAL EXPERIMENT STATION

The Agricultural Experiment Station receives its Federal support from the Hatch Fund (1887), from the Adams Fund (1906), from the Purnell Fund (1925), and from the Bankhead-Jones Act of 1935. 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 livestock, insect pests, plant diseases, and other problems of agricultural economics and practice.

AGRICULTURAL EXTENSION DEPARTMENT

Agricultural Extension, provided for by the Federal Smith-Lever Extension Act, the Capper-Ketcham Act, and the Bankhead-Jones Act 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 five public service departments under the direction of the President and Board of Regents of the University:

STATE ANALYTICAL LABORATORY

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

STATE BUREAU OF MINES

The State Bureau of Mines was created by the thirty-fourth session of the Legislature (approved March 29, 1929) to provide facilities for cooperation with the mineral industry of the State and to advance the development of the State's mineral deposits.

BUREAU OF MINES EXPERIMENT STATION

In 1920 the Rare and Precious Metals Station of the United States Bureau of Mines was moved to Nevada. From State funds a two-story and basement brick building, including offices, laboratories and library, was built on the University campus to house this Federal Mines Experiment Station. All experimentation for the whole United States in the fields of the rare and the precious metals is done at this Nevada Station. The Federal funds pay all salaries and equipment costs and the State, through the University of Nevada, bears cost of all needed heat, power and light. A working agreement between the United States Bureau of Mines and the University of Nevada provides for use of University laboratories and libraries by staff members of the Mines Station and for use of the station laboratories and library by staff members or advanced students of the University.

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 of a college or school 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 the 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 and Artemisia Halls, the Dean of Women has a list of suitable homes accommodating women exclusively and in which a parlor is provided for the reception of visitors. Women students are required to report to the Dean of Women in order that they may register their addresses. The Dean of Women invites correspondence with parents and guardians, and gladly cooperates with them regarding the welfare of students.

DEAN OF MEN

The academic and the social welfare of the men students is under the special supervision of the Dean of Men. Jurisdiction over all social matters and student organizations in which men students are concerned is given to the Dean of Men.

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

[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.

colleges which relate to the educational welfare of the University as a whole.

The Standing Committees, through which much of the business of the University Faculty is done, are listed on page 24 of this Catalogue.

MEETINGS

The University Faculty meets at the call of the President.

COLLEGE FACULTIES

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

DEPARTMENTS

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

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

ADVANTAGES AND EQUIPMENT

Reno, the seat of the University, is a substantially built and steadily growing city, numbering in 1935 twenty thousand inhabitants. It is located, at an elevation of 4,500 feet, in the beautiful valley of the Truckee River at the junction of three railroads, the Southern Pacific, a transcontinental line, the Virginia and Truckee Railway, a short line with Reno and Virginia City as terminals, and the Western Pacific Railway, another trunk-line between the east and the west.

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

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

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

BUILDINGS AND GROUNDS

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

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

AGRICULTURAL BUILDING—The Agricultural Building is a three story structure of brick, with stone facings and trimmings, situated directly east of the University lake. The first floor includes the administration offices, two classrooms, a large lecture room, a Home Economics laboratory, and the Botany laboratories. 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 dairying, farm crops, soil physics, biology, and soils research. (1918*)

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

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

AGRICULTURAL EXTENSION BUILDING—This is a two story gray stone building standing on the west side of the Quadrangle. Fitted with laboratories and classrooms for Chemistry, it was used for Chemistry until the fall of 1930. Thoroughly renovated and remodeled on the interior, this building has been occupied from the beginning of 1936 by the Staff of the Agricultural Extension Service of the University. (1902)

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 and fifty students. (1905)

EDUCATION BUILDING—A two story brick building, with stone facings and columns, situated north of the Agricultural

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

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 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 and electrical laboratories. These laboratories are equipped with modern machinery for giving instruction in the several courses, such standard tests as are usually required being represented. The second floor contains the computing rooms, drafting rooms, radio laboratory and the classrooms of the several Departments. (1912)

EXPERIMENT STATION BUILDING—This is a two story brick and stone building situated on the east side of the Campus directly east of the Mechanical Building. Remodeled on the interior in early 1936, this building now houses the Veterinary Control Service and certain Staff members of the University's Agricultural Experiment Station. (1913)

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). An addition was built with Federal Relief Funds in 1934.

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)

HALL OF ENGLISH—This one story building is situated on the west side of the Quadrangle, is constructed of brick and stone in conformity with the architecture of other buildings. It formerly housed the Library. During the summer of 1929 its interior was changed to six classrooms and an office, all now used for the work of the Department of English. (1913)

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

HEATING PLANT—A central heating plant supplies most of the buildings on the Campus. It consists of four large boilers, pumps, engines, motors, etc., and is operated in connection with the mechanical engineering laboratories. (1908; enlarged, 1926)

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

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

LINCOLN HALL—Lincoln Hall, the men's dormitory, is a three story brick building, with present accommodations for seventy-eight men. (1896)

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

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

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

MACKAY SCIENCE HALL—The Mackay Science Hall houses the departments of Chemistry, Physics and Mathematics. It is a reinforced concrete, fire-proof, brick and stone building, 170x80 feet in dimensions and having a full basement and a sub-basement of 1,600 square feet. The basement and sub-basement have laboratories and storerooms for Chemistry and for Physics. The two main floors have laboratories, classrooms, lecture rooms, storerooms and offices for Chemistry, Physics and Mathematics. Ventilating fans occupy the attic story. (1930)

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

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, pattern shop, mechanical laboratory and drafting room, strength of materials laboratory and the laboratories of the Civil Engineering Department. (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 Classics and Philosophy occupy the second floor. The third floor is used for overflow classes. The office of the Superintendent of Buildings and Grounds and the University Post Office are in the basement. (1886)

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 Department of History and Political Science occupies the first floor. The second floor is occupied by the Department of Modern Languages. (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. 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. Originally, in 1909, there were seventeen tiers of concrete, with a colonnade for a covered grandstand in the rear and a seating capacity of about two thousand. In the summer of 1929, through an added gift from Mr. Mackay, this Stadium was enlarged to a seating capacity of more than five thousand.

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

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

THE UNIVERSITY FARM—Four miles south of Reno the State purchased, in 1917, a 213-acre farm primarily for use as a stock farm. (1917) Owing to the financial emergency, such use of this farm has been suspended since July 1931. Substitutional arrangements for using equipment and live stock of private dairy farms and equipment and flocks of private poultry farms have been in effect since July 1931 in connection with the Dairy and the Poultry courses.

LIBRARIES

GENERAL LIBRARY

The University Library, housed in the Alice McManus Clark Memorial Building, contains 59,195 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, excepting legal holidays, the Library is open from 7:30 a. m. to 9:30 p. m., Mondays to Thursdays, inclusive; 7:30 a. m. to 6 p. m., Fridays; 7:30 a. m. to 12:30 p. m., Saturdays; 1:30 p. m. to 5:30 p. m., Sundays. Thanksgiving, Christmas and Easter vacation periods the Library is open daily from 8:30 to 4:30, except Sundays and legal holidays. During the summer vacation the Library is open daily, excepting Sundays and legal holidays, from 9 a. m. to noon.

To the general public (not children) 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 EXPERIMENT STATION LIBRARY

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

MINING LIBRARY

Reference books, textbooks, recent technical journals, and other works pertaining to geology, mineralogy, mining, and metallurgy are concentrated in one large study room which is conveniently located upon the ground floor of the Mackay School of Mines. The library consists of some 2,216 bound volumes, in addition to which is maintained a complete set of publications of the U. S. Geological Survey and the U. S. Bureau of Mines. The Consolidated California and Virginia Mining Company donated a complete set of records of the company operations during the period of the Big Bonanza. These records include correspondence, mine, bullion, and mill reports, etc., and are invaluable from a historical point of view. Frederic J. Siebert donated his mining library of about three hundred volumes. Many of these books are out of print. The late Professor R. D. Jackson's widow donated Professor Jackson's reference and notebooks. Mrs. George Lloyd presented several valuable text and reference books. Senator Tasker L. Oddie presented several hundred copies of United States Geological Survey and United States Bureau of Mines publications. Thirty current periodicals are received. This library is open at all times during the sessions.

THE MACKAY RESEARCH LIBRARY

The Johannes Walther Library comprises about 7,000 papers on desert geology, paleontology, ore deposits and other geologic subjects. It is said to be the most complete library on desert geology in existence.

This Library is in the Mackay Research Room on the second floor of the building. The room is well appointed with oak furniture and bookcases. It is lighted by skylights and windows.

The funds to buy the Library and to fix up and furnish the research room were supplied by Mr. Clarence H. Mackay.

MINING EXPERIMENT STATION LIBRARY

The library of the U. S. Bureau of Mines Station at the University consists of between 4,000 and 5,000 volumes and pamphlets. The important mining and research periodicals are received, together with the publications of the Bureau of Mines.

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.

COUNTY AND STATE LIBRARIES

Besides the University libraries, members of the University have the facilities of the Washoe County Library of 57,274 volumes and of the State Library at Carson City which has over 129,884 volumes, 47,005 of which make one of the best Law Libraries in the United States, especially because of the completeness of its early-day statutes of every State in the Union. Books are mailed all over Nevada, especially to small communities which have no library facilities.

LABORATORIES

ARTS AND SCIENCE LABORATORIES

Biological—The Biological Department occupies part of the basement, part of the main floor and the north half of the second floor of the Agricultural Building. There are seven 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 elementary and advanced botanical laboratories; (4) the plant physiology and pathology laboratory; and (5) the anatomy laboratory. The first three are located on the second floor, two are on the main floor and two are in the basement. In addition to these laboratories, there are small rooms for storage, an ice room, a dark room, a fireproof incubator room, and a small museum and exhibition room. In the basement there are arrangements for the keeping of running aquaria and supplies of living animals. In the central part of each laboratory are stationary tables provided with gas, water, and sink connections, lockers and drawers—all adapted for the setting up of apparatus in physiological and other experimental work. Tables grouped in front of the windows are arranged for microscopic work. Each individual table is provided with a microscope, locker, and combination lock drawers for the keeping of individual supplies and apparatus. Wall cabinets, reagent cases, and lockers are used for storing general equipment and supplies. The department possesses fifty-five compound microscopes, ten of which are provided with oil immersion lenses and all the accessories needed for the most delicate and precise microscopical work. Among the larger pieces of apparatus are an electrical incubator, a Freas electric oven, paraffin water bath, dry air and steam sterilizers, autoclave, centrifuges, and a full projection apparatus for microscopic lantern-slide and opaque demonstrations. Four complete sets of physiological apparatus will accommodate eight students in experimental animal physiology. Smaller apparatus and a greenhouse make possible a limited amount of work in plant physiology.

Chemical—The Mackay Chemical Laboratory occupies the north half of the new Mackay Science Hall. The large lecture room, department library, seminar and classrooms, occupying the central part of the building, give ample room for reference and other work connected with the laboratories. Four laboratories accommodating twenty-four students each and fitted with gas, water, electricity, individual desk hoods, etc., occupy the northeast portion of the basement and first floor for the use of general chemistry and qualitative analysis. In connection with these laboratories are two balance rooms and a hydrogen sulphide room. Above these laboratories, on the second floor, are situated the laboratories for quantitative analysis and organic chemistry. Each will accommodate twenty-four students working at the same time. They are fitted with gas, water, steam, vacuum, compressed air, alternating and direct current electricity, fume hoods, ovens, etc. A balance room and Kjeldahl digestion room are located close by.

In addition to these, smaller laboratories are provided for physical, physiological and advanced inorganic and organic chemistry. These are all equipped with gas, water, steam, compressed air, vacuum, electricity, fume hoods, etc., for

advanced work and research in these fields. A dark room, refrigerator room, and large storerooms for supplies are provided. The dispensing room is situated on the first floor and connected with the other two floors by an electrically driven dumb waiter so that students working on any floor may be served conveniently and with little delay.

A furnace room, equipped with both gas and electric furnaces of various types, a grinding room with various grinding machinery and a shop and glass blowing room are located in the basement.

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

MUSIC EQUIPMENT

College Music Set—This gift set was donated to the University by the Carnegie Corporation of New York City in 1935. It includes phonograph records, musical scores, books on music and a phonograph.

In this set are 824 records representing all nations, periods, styles, vocal, choral and instrumental combinations. The earliest composition dates from ancient Greece and the latest includes modern compositions of contemporary composers.

The set includes 129 books of the best and latest musical biography, history, theory and criticism, and 251 scores corresponding to the records. All are alphabetically cataloged and classified in several ways for convenient reference.

The set includes, also, one of the finest phonographs obtainable, an automatic Capehart.

The records, scores and the phonograph are available to the student body and the community for special reference use at available hours in the music rooms. The books are in the Library.

In addition to this gift set the University has a considerable collection of reference books on music, biography, theory, history, encyclopedia, folk song, oratorio scores and song collections, together with some valuable records. Together with the book, score and record items of the Carnegie set these constitute a very comprehensive music library.

The University also owns several instruments including a bass viol, bass horn, french and alto horns, kettle drums and other equipment available for students to use in the orchestra and band.

Physics. The Physics Laboratory is located in the south wing of Mackay Science Hall. The various divisions of the laboratory occupy a portion of the sub-basement, the basement, and a special room for advanced work on the first floor of the building, as well as a radio laboratory in the attic.

In the sub-basement are located the storage battery room containing 112 cells, a general storeroom, a constant temperature research room, and three smaller rooms for storing glass tubing and iron, wood and brass stock.

In the basement are located the department's photometry room, the generator room, the shop, the photographic dark room, the laboratory for general physics, the laboratory for electrical measurements, a spacious storeroom connecting and serving the two laboratories, and a steel and concrete vault for the storage of the better grade of electrical instruments belonging to the department.

Both of the laboratories contain distributing panels by means of which storage battery, generator, and alternating current power can be delivered to all the various outlets in the different laboratories and lecture rooms occupied by the department.

The photometry room is provided with a standard three-meter photometer bar equipped with a compound rotator and a Lummer-Brodhun photometer, and with a thirty-inch Ubricht sphere which is used in making measurements of spherical candle power.

The generator room is provided with a switchboard to which is connected a constant potential charger, used in charging the storage batteries, a 15 kw. motor-generator set, and a special three-phase motor-generator set for experimental work. The switchboard is so connected to the storage batteries located in the sub-basement that one can secure voltages ranging from 2 to 220 volts for all the distributing panels of the department. In addition, current from the direct current generator at 125 volts can be supplied in all the laboratories and lecture rooms of the department. Through a distributing panel three-phase current of constant voltage up to 125 or 150 volts and of any desired frequency between approximately 40 and 90 cycles can be furnished to any table or desk in the electrical measurements laboratory. The switchboard is also provided with switches for automatically starting the 15 kw. motor-generator set and the potential charger.

The department shop contains two motor driven lathes provided with taper attachment, change gears for cutting metric threads, and all the other accessories, hand tools for wood and metal work, including metric taps and dies, a small circular and linear dividing engine, a motor driven tool grinder and polisher and work benches. Along one wall of the shop is a table especially adapted for a course in glass blowing given by the department. This table is provided with air, gas, and an oxygen tank outlet for use when working with pyrex glass.

The electrical measurements laboratory has wall desks around two sides of the room. These desks are provided with ample drawer space and with water, gas, direct and alternating current outlets. High sensitivity galvanometers are mounted over these desks at suitable points along the walls of the room. Four separate sets of piers in the center of the room provide tables which are free from vibration and upon which the experimenter can mount his sensitive apparatus. Each of these tables is provided with gas, and with direct current, single phase and three phase outlets. Among the electrical instruments available for student use in this laboratory are potentiometers, standard cells, standard resistances, standard inductances, standard condensers, standard voltmeters and ammeters, Wheatstone bridges, alternating current bridges and galvanometers, Kelvin bridges, Kohlrausch bridges, inductance bridges, etc. Many of these instruments have been tested at the Bureau of Standards and certificates certifying to their accuracy are on file in the department offices.

The laboratory for general physics is a spacious well-lighted room, having wall desks around three sides of the room. Two large laboratory tables, each equipped with sinks and electrical and gas outlets, extend north and south across the length of the room. These two tables are separated from each other at the middle of the room by a wide aisle which cuts across the room from west to east. Eight smaller desks, symmetrically placed in the room, two on each side of each of the large tables, constitute the remainder of the desk space of this laboratory. At either end each desk is provided with gas and alternating and direct current outlets.

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.

A Burroughs adding machine.

Electrical—The Electrical Laboratory contains equipment for making the experiments usually included in undergraduate courses in electrical engineering. The equipment is up-to-date and machines of 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. The main laboratory contains the following equipment:

Motor generator sets:

Synchronous motor/alternator, 45 hp/37½ kva.

Induction motor/3 wire direct current generator, 25 hp/20 kw.

Induction motor/direct current generator, 7½hp/5½ kw.

Direct current motor/direct current generator, 5 hp/3¼ kw.

Induction motor/direct current generator, 15 hp/7 kw. (two sets).

Single phase induction motor/500 cycle alternator, 5 hp/2½ kw.

Single phase induction motor/direct current generator, 2 hp/1 kw.

Single phase induction motor, 1,500 volt direct current generator, ½ hp/500 watt, for communication laboratory.

Direct current motor/alternator, 10 hp/7½ kw. The alternating current unit has four interchangeable rotors and twelve armature terminals. Especially constructed for laboratory purposes.

Alternating current/alternating current, 15 kva/15 kva. Phase displacement, dynamometer set, constructed for laboratory purposes. Each unit has twelve armature terminals to permit the making of various types of connections.

Single units which may be tested singly or combined with other units are provided as follows:

Laboratory type, 10-kw. rotary converter with three special 5 kva. transformers, and control equipment.

Direct current motors, 3 hp. up to 25 hp.

Direct current generators, 2¼ kw. to 15 kw.

Single phase induction motors, 3 hp. to 10 hp.

Three phase induction motors, 5 hp. to 10 hp.

For the laboratory testing of the motors and generators named there are two switchboards, provided with controlling and metering equipment, and numerous single portable loading and control units, resistors, reactors and condensers.

The communications laboratory contains the following:

Telephone demonstration plant for two subscribers.

Mercury arc rectifier, 10–70 volts, 10 amperes.

Vreeland oscillator with condenser for frequency control.

Vacuum tube oscillator, beat frequency type, 20–9,500 cycles.

Impedance bridge for voice frequencies.

Artificial line of 25 sections, each a combination of resistances, inductances, and capacitances. Suitable switches are included by which the line can be made to simulate either a 10 gauge telephone line or a No. 0 gauge power line.

Short-wave radio transmitter for telephone and continuous wave operation.

Assortment of variable resistances and condensers for use in communications laboratory.

Vacuum tube voltmeter-milliammeter for the comparison of alternating currents of 300 to 5,000 cycles.

General Radio vacuum tube voltmeter.

General Electric two-element oscillograph.

Mechanical — The Mechanical Power Laboratory in the Electrical Building is equipped with twelve power generators or auxiliary units on which may be performed a large number of fundamental regular course experiments, besides furnishing equipment for research and machine design problems.

This equipment includes the following:

An 80-hp. oil-fired Babcock and Wilcox boiler with injector and feed pump.

A 12 x 24 Corliss engine belted to an alternator provided with grid rheostats for loading.

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

A 5 x 5 vertical slide valve Ball engine.

A 7-kw. Curtis turbo-generator.

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

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

A 6-hp. vertical gas engine.

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

A Buick automobile engine.

A Chevrolet automobile engine.

A 100-hp. Sprague dynamometer for testing high speed internal combustion engines.

In addition to the above are a number of small machines which may be set up temporarily for thesis or display purposes, also steam and gas indicators and calorimeters and other necessary instruments for power testing.

The Mechanical Laboratory on the second floor of the Mechanical Building contains equipment for determining the heat value of solid, liquid and gaseous fuels, coal analysis, oil distillation, lubrication testing, air flow measurements, coefficient of friction, and a wide range of instrument

testing and calibration. The equipment in this laboratory includes:

One Parr adiabatic oxygen bomb calorimeter.
One Sargent gas calorimeter.
One Buffalo forge blower with motor.
Two oil testing machines with motors.
One vacuum pump with motor.
One electric oven with controlling equipment.
One inclined friction plane.
One oil still.
Two Hays-Orsat gas analyzers.
One Peterson-Palmquist gas analyzer.
One set of aviation meters and gages.

Gas and electric heaters, balances, thermometers, hydrometers, barometers, gages and necessary equipment for their testing and calibration. Apparatus for testing lubricating oils, including Saybolt and Engler viscosimeters, surface tension, flash, fire and cold test equipment.

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

The Mechanic Arts Laboratory comprises the machine shop, forge shop and pattern shop, all located in the Mechanical Building.

The machine shop on the main floor contains the following equipment: One 5-hp. motor-driven air compressor with receiver, one 16″ Whipp crank shaper, seven engine lathes, one 24″ planer, one No. 1 universal tool and cutter grinder, one No. 2 and one No. 1½ universal milling machine, one 20″ drilling machine, one 10″ drilling machine, one centering machine, nine bench vises, floor grinder, buffer and power hack saw, with complete equipment of hand tools, instruments and gages.

The forge shop contains six power forges with all necessary equipment.

The pattern shop on the second floor contains one 18″ Variety saw bench, one self-contained motor-driven speed lathe, one 48″ jig saw, one 6″ jointer, a motor-driven grindstone, one disk sander, together with the necessary hand tools, benches and equipment necessary for the manufacture of small wood patterns.

MINING SCHOOL LABORATORIES

Assay—The Fire Assay Laboratory in the Mackay Building is equipped with five gas-fired muffle furnaces and gas-fired melting furnace, six Thompson pulp scales for weighing assay pulps, and suitable hood for parting. Adjoining the Laboratory is a storeroom for supplies and a grinding room for the preparation of samples. The grinding room is equipped with a Braun sample jaw crusher, Braun pulverizer, shaking screen, bucking board, and exhaust fan for removing dust.

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

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

Geological and Mineralogical—The Department of Geology is provided with reference collections illustrating ores, minerals, rocks, and fossils, with class collections for determination. Complete sets of United States Geological Survey publications and maps, most of the State Geological Surveys publications, as well as those of many foreign surveys.

The mineralogical laboratory is well equipped for blowpipe and chemical work, with a large collection of minerals for determination. Binocular microscopes and other accessories are also available.

The S. Frank Hunt Foundation field equipment consists of a station wagon and a coupe equipped with altimeters, compasses, tapes, with complete accessories for plotting and

note taking. The equipment also includes complete camping equipment suitable for field excursions of several weeks' duration.

This field work has been adequately financed by the Hunt Foundation so that all traveling and living expenses of the instructors and students shall be paid out of these funds.

Petrographic—The Petrographic Laboratory includes the following equipment:

One Sauveir & Boylston polishing machine; apparatus for hand polishing; rock saws; seven grinding laps; eight Bausch & Lomb petrographic microscopes; one Iver tint photometer; seven Lietz petrographic microscopes; one Warner & Swasey polishing and grinding machine; one reflecting goniometer; one Abbe refractometer; one microscope for the study of polished sections of opaque ores and minerals; 1,200 slides of rocks and minerals; 1,500 hand specimens of rocks and minerals.

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

Metallurgical and Ore Dressing—The Metallurgical and Ore Dressing Laboratory equipment includes the following:

One 4 x 8 Sturtevant jaw crusher, one pair 10 x 12 crushings rolls; 2 ft. x 5 ft. Stearns-Rogers rod mill; 15-ft. Dorr classifier, one two-compartment bucket elevator and one Vezin automatic sampler. All of these machines are so arranged that ore passes mechanically through any desired series after being fed to the jaw crusher. An exhaust fan prevents dust escaping from the dry crushing machines. The overflow from the Dorr classifier is pumped to two Devereux agitators which in turn are connected to either of two classifiers, a double cone or a Fahrenwald, thence to a Deister Plat-O table or a Deister slime table. Centrifugal pumps circulate the pulps or pump them to waste.

The smaller equipment consists of two Janney, one Ruth, one Callow and one Booth-Thompson flotation machines, with accessory equipment for preparing samples, a small General Engineering unit consisting of a small two-compartment jig and small Wilfley table.

A large roller agitator is provided for cyanide testing and also a small mechanical agitator for somewhat larger tests.

Special equipment consists of a two-compartment jig, Sperry filter press, suction filter leaves, vacuum pump, 150-lb. tube mill, Krupp ball mill, and platform scales.

Power is supplied by several motors varying in size up to 25 hp. All the machines are so arranged that they can work independently or in conjunction with one another. The following processes may be conducted on a working scale: The dry crushing and automatic sampling of an ore; the concentration of sands and slimes after crushing an ore either in stamp battery or rolls; the wet crushing, plate amalgamation, and concentration of a gold ore; the cyanide treatment of a gold or a silver ore, and the pan amalgamation of a silver ore. Fine grinding plant in enclosed circuit to prepare ores for cyanidation, concentration, flotation, or any other tests. A very representative collection of various types of ores for testing purposes is maintained.

Metallographic—The Metallographic Laboratory is equipped with the following:

One Sauveir & Boylston polishing machine; one Warner & Swasey polishing machine, and a Leitz grinding machine; two large Leitz metallurgical microscopes with photomicrographic cameras; one Heele-Berlin spectroscope; a Bausch & Lomb quartz spectrograph; a Leitz ultropaque microscope; one Spencer metallurgical microscope; one electric hot plate; one set prepared specimens of the common and ferro alloys.

Electro-Metallurgical — The electro-metallurgical equipment consists of a Munning direct current generator operated by alternating current motor; one large General Electric automatically controlled heat treating furnace; one small heat treating muffle furnace and a small arc melting furnace. Additional equipment is also available in the United States Bureau of Mines Building.

Mining—The Mining Laboratory consists of the following equipment:

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

hand and machine drill steels, mine lamps, shovels, hygrometers, anemometers, etc.

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, hydrometallurgy, electro-metallurgy, electrolysis, radio-activity and spectroscopy. Facilities are provided for handling large volume of fire assaying and chemical analyses requiring extreme accuracy.

The ore-dressing equipment is the best standard practice. The general metallurgical laboratories are equipped for test work covering known processes, and special apparatus is designed for proposed methods. Each research room is fitted for work on the particular problem being studied. This requires frequent redesign and installation of needed set-ups which are often of original construction.

The latest model large-type spectograph is placed in a separate dark room for use in identifying or analyzing difficult substances.

New apparatus has been recently installed for aqueous electrolysis, electrolytic separation of fused baths and electro-thermo treatment of ores at high temperatures on a scale of a fraction of a pound to several hundred pound lots.

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 students who are interested in agriculture have an opportunity to pursue work according to the methods adopted by the Association of American Agricultural Chemists.

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

Soil Physics — The Soil Physics Laboratory contains tables fitted with gas and water, and holding the chemical reagents used in the work; soil screens; tubes for determining capillarity, water retention and effect of mulches. Various appliances for determining column weight, pore space, specific gravity, etc., are provided. Harvard balances for weighing, not demanding extreme accuracy, and analytical balances for the more exact work are furnished. In connection with the soil-moisture work, there are provided balances for weighing, soil cans, an electric soil oven, and soil augers and tubes for taking samples. For the work in mechanical analysis, the laboratory is fitted with analytical balances, agitator, soil sieves and shaker, and a centrifuge.

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

Food—The food laboratories are on the second floor of the south half of the Agricultural Building. They are well furnished with modern equipment, and accommodate twelve students. Adjoining the unit kitchen is a dining room suitably furnished for the use of meal service classes.

Clothing—The clothing laboratory is equipped with serving and drafting tables, sewing machines, and smaller equipment needed for the work of the classes in clothing. Twenty students can be accommodated in this room. Adjoining this laboratory is the garment fitting and locker rooms.

Applied Art—This laboratory, on the first floor of the Agricultural Building, is equipped with low tables and looms to accommodate twelve students.

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. On the wall at the right of the entrance to the museum is a large map of Nevada, showing the location of all the mining districts of the State, while in the center of the museum at the rear there is a topographical relief map of the State on a scale 4 miles to the inch. The show cases on the left-hand side of the museum present a collection of minerals arranged scientifically according to Dana, followed by a systematic collection of rocks; the cases on the right-hand side of the museum are devoted to displays of Nevada ores of the precious and base metals and of Nevada economic minerals, arranged according to counties, while the cases on the center aisle contain collections of minerals arranged according to their economic uses.

On the Mezzanine floor, east side, are the exhibition cases containing fossil specimens, etc., relating to historical geology, illustrating the development of life from the earliest known to the present.

North Side—A collection of rock drills from the first Burleighs down to present day drills—an excellent working model of ore shaft, hoist, skip, and stamp mill presented by the Tonopah Mine Operators Association.

West Side—Display of Comstock Lode ores, relics, pictures, maps, etc.—display of mine models of various types.

South Side—Prehistoric footprints removed from sandstone in State Prison at Carson City; also pictures and plaster casts of prints not removed from sandstone beds.

Other special exhibits in the Museum include exhibits of metallurgical products of different minerals, various milling and 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 (1915), the exhibit at the Goldfield session of the American Mining Congress in 1909, the loan collection of the United States Geological Survey of the rocks and minerals of Goldfield; ores and minerals of Nevada, presented by Colonel H. B. Maxson; the collection of rocks and minerals formerly in the State Capitol at Carson City; the Cole collection, purchased from Dr. Cole by Mr. Mackay and presented by him to the museum; the Malcolm McDonald collection, presented to the University after the death of Mr. McDonald; the C. W. West collection; the F. M. Fellows collection, and several other smaller collections received from various sources.

Many valuable gifts have been made to the Mackay Museum, and its continued growth depends largely upon the generosity of those engaged in the development of the mining industry of Nevada. Contributions of specimens of country rocks, ores, minerals, and metallurgical products, and of photographs, maps, diagrams, and models are greatly desired. The museum is open to the public during the school year, and as far as possible every facility will be placed at the disposal of any one who wishes to inspect or study the various collections.

BIOLOGICAL MUSEUM AND COLLECTIONS

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

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

HERBARIUM

The Nevada Agricultural Experiment Station herbarium now contains 14,500 mounted sheets, nearly all of western species, and at least half of them from Nevada. Certain of

the forage plants, as grasses, clovers, and lupins, are especially well represented. Although, as yet small, this collection is of considerable importance, as it contains a number of types and typical plants obtained from type localities.

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

PATHOLOGICAL MUSEUM

The Department of Veterinary Science has a collection of several hundred permanently mounted gross pathological specimens covering practically all the common infectious diseases of animals and miscellaneous disease processes of particular interest. The collection also contains some material from human sources, mostly representing disease processes common to both man and the lower animals. This collection is available for teaching purposes and inspection.

CHEMICAL SPECIMENS

A number of substances representing the field of the chemical industries have been collected and placed in cases in Mackay Science Hall. 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; samples of inorganic salts prepared by J. T. Baker Chemical Company; of distillation products obtained from crude petroleum prepared by the Standard Oil Company, and of zinc products prepared by the New Jersey Zinc Company.

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 and Student Body meetings.

The following is a list of lectures given in 1935–1936:

COMMENCEMENT, 1935

May 11—Phi Kappa Phi Address, "Dynamic Education," by Dr. J. Hugh Jackson of Stanford University.

May 12—Baccalaureate Sermon, "Miracles," by Reverend Brewster Adams, Pastor of the First Baptist Church, Reno.

May 13—Commencement Address, "Retrospection, Comparison and Ideals," by Mr. Nathaniel E. Wilson of Reno.

ASSEMBLY ADDRESSES

1935

September 13—"Our Constitution, Static or Dynamic," by Ernest S. Brown, District Attorney of Washoe County.

October 17—"The Chemist and the World's Food Supply," by Dr. Howard B. Lewis of the University of Michigan.

November 4—"Les Beaux Voyages de Pierre Loti," by Yves Méric de Bellefon, French Consul General at San Francisco.

December 13—"Alsace and Lorraine," by Dr. B. F. Chappelle of the University.

1936

January 27—"Foreign Student Life in the Universities of France," by Madame Aline Caro-Delvaille of Paris.

February 7—"The Chance for Peace in Europe," by Dr. Ethan T. Colton, National and International Y. M. C. A., and Missionary Lecturer of New Jersey.

February 19—"Washington, the Man," by Honorable George Guzendorfer of Reno.

February 28—"The Nebulae of the Milky Way," by Dr. Arthur B. Wyse of the Lick Astronomical Observatory (sponsored by the Astronomical Society of Nevada).

March 19—"Indian Activities in Nevada," by Miss Alida C. Bowler, Superintendent of the Carson Indian Agency, with Indian Dances by Children of the School, directed by Mr. George Lemaire of the Agency.

FACULTY SCIENCE CLUB

1935

September 26—"Significance of the Ethiopian Situation," by Dr. C. R. Hicks of the University.

October 10—"Our Military Policy and the National Defense Act of 1920," by Colonel William L. Reed of the University.

October 24—"Water Problems of the West," by Dr. J. E. Church of the University.

November 14—"Some Aspects of Geophysical Prospecting," by Dr. Irwin Roman of the U. S. Bureau of Mines.

December 12—"Communism in Our Schools," by Dr. Harold N. Brown of the University.

1936

January 23—"Social Security Legislation," by Judge H. W. Edwards of Reno.

February 13—"Air Conditioning," by Dr. S. Allan Lough of the University.

February 27—"Some Cathode Rays and Their Application," by Dr. Leon W. Hartman of the University.

March 12—"New National Legislation and Mining," by Professor Jay A. Carpenter of the University.

March 26—"The Geology of the Comstock Region," by Professor Vincent P. Gianella of the University.

April 23—"The Pelican," by Dr. B. F. Chappelle of the University.

LECTURES BEFORE THE ROCKS AND MINERALS STUDY CLUB OF THE MACKAY SCHOOL OF MINES

1935

October 2—"Blowpipe Methods," by Professor William I. Smyth.

October 16—"Common Field Methods of Determining Minerals," by Professor William I. Smyth.

November 6—"What a Mineral Is Made of," by Professor Walter S. Palmer.

November 20—"Rocks of the Earth's Crust," by Professor Harry E. Wheeler.

December 4—"Mineralogical Classification of Rocks," by Professor Harry E. Wheeler.

1936

January 15—"Limestone," by Professor Henry W. Isbell, Captain, U. S. A.

February 19—"Cutting and Polishing of Gem Stones," by Mr. Guy Emery.

March 4—"Crystal Systems," by Professor Walter S. Palmer.

March 4—"Gypsum," by John Brockman of Reno, a Club member.

March 18—"Origin of the Continents and Oceans," by Professor Harry E. Wheeler.

LECTURES BEFORE THE NEVADA SECTION AMERICAN INSTITUTE OF MINING AND METALLURGICAL ENGINEERS.

In Joint Session with Crucible Club

November 19, 1935—

"Early Milling Practice on the Comstock," by Wm. I. Smyth.

"Milling Problems of the Arizona Comstock Corporation," by W. J. Loring, President, Arizona Comstock Corporation.

March 25, 1936—

"Six Days at the Annual New York A. I. M. E. Meeting," by Wm. I. Smyth.

"Some Electrometallurgical Projects in the Western States," by Dr. J. Koster, Electrometallurgical Section, Metallurgical Division, U. S. Bureau of Mines.

LECTURES BEFORE THE CRUCIBLE CLUB

January 9, 1936—

"Dewatering an Old Spanish Mine in Cuba by Air-lifts," by C. L. Bruns, Manager of Western Ore Milling Company.

February 13, 1936—

"Tungsten Technology," by Ott F. Heizer, General Manager Nevada Massachusetts Tungsten Company.

March 3, 1936—

"Safety in Mining," by K. S. Butler, Sales Engineer, E. D. Bullard and Company.

FALL (1935) PROGRAM OVER KOH, RENO

October 4—"The Work of the State Analytical Laboratory," by Professor Walter S. Palmer, Director of the State Analytical Laboratory.

October 11—"Meteorites," by Professor V. P. Giannella, Head of the Department of Geology.

October 15—"Home-Coming Day," by Dr. Walter E. Clark, President of the University of Nevada.

October 22—"Nevada History," by Dr. Jeanne E. Wier, Head of the Department of History and Political Science.

October 29—"A Study of Tree Rings as Related to Dry Periods," by Mr. George Hardman, Chief in Irrigation and Agronomy, Agricultural Experiment Station.

November 5—Musical Program, presented by Professor T. H. Post, Head of the Department and Director of Music.

November 12—"Early Schools of Nevada," by Dr. Harold N. Brown, Assistant Professor of Education.

November 19—"The School System of Nevada," by Dr. F. W. Traner, Professor of Secondary Education.

November 26—"John Mackay, His Life and Work on the Comstock," by Professor John A. Fulton, Director, Mackay School of Mines.

December 3—"Fakes in Foods and Drugs," by Mr. Sanford Dinsmore, Commissioner of Foods and Drugs.

December 10—"All the World's a Stage," Dramatic reading by Mr. William C. Miller, Instructor in English.

December 17—"Nevada Archeology," by Dr. B. F. Chappelle, Head of the Department of Modern Languages.

SPRING (1936) PROGRAM OVER KOH

February 25—"Air Conditioning," by Dr. S. Allan Lough, Associate Professor of Chemistry.

March 3—"The New National Mining Laws and How To Conform with Them," by Professor Jay A. Carpenter, Professor of Mining.

March 10—"Astronomy as a Hobby," by Professor G. B. Blair, Associate Professor of Physics and Astronomy.

March 17—"Mammals of Nevada," by Professor Charles Brown, Assistant Professor of Biology.

March 24—"Economic Dependence of Nevada on Mining," by Professor J. A. Fulton, Director, Mackay School of Mines.

March 31—"Fossils," by Dr. Harry E. Wheeler, Instructor in Mining.

April 7—"Water Prospects for the Summer of 1936, Based on Recent Snow Surveys," by Professor Horace P. Boardman, Head of the School of Civil Engineering.

April 14—"Planting to Beautify Our City," by Dr. P. A. Lehenbauer, Professor of Biology.

ORGANIZATIONS AND PUBLICATIONS

THE ALUMNI ASSOCIATION

The Alumni Association was organized in June, 1895, to promote union and good-fellowship among the Alumni, and to advance and protect the interests of the University of Nevada. All graduates of the University are recognized as members of the association, and former students are eligible to membership upon the graduation of the class in which they originally enrolled. Active membership is maintained by payment of the dues of the association—$1 a year. A life membership is granted for $10, or payment of the annual dues for ten years. The association holds a combined business and social meeting each year during the homecoming celebration.

OFFICERS FOR 1935–1936

President.....HOYT G. MARTIN,'29
Vice President.....MARSHALL GUISTI,'30
Secretary-Treasurer.....LOUISE BLUM LEWERS,'95
Assistant Secretary.....ARMENA FRITZ,'33

EXECUTIVE COMMITTEE

LOUISE FREY SADLIER,'96	PAUL ATKINS HARWOOD,'24
ALAN BIBLE,'30	JOSEPH R. JACKSON,'32
MALCOLM S. BLAKELY,'32	BILL A. LIGON,'31
DOUGLAS A. CASTLE,'27	WILLIAM I. SMYTH,'14
HARRY J. FROST,'27	JACK T. WALTHER,'31
ROBERT B. GRIFFITH,'23	HAROLD F. WHALMAN,'22

There are active chapters of the Alumni Association in Los Angeles, New York City, and Washington, D. C.

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. 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 events under the Association's management, and subscriptions to the U. of N. Sagebrush 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 was modified and expanded into the University Hospital Association. This plan went into effect in September, 1923.

The Association is supported entirely by the fees received from its membership. These are used to pay the salaries of the College Physician and of the Hospital Matron, to purchase necessary furnishings, equipment, hospital supplies and to pay for laboratory examinations, X-rays, prescriptions and medicines, and for the repair and upkeep of the building. Any surplus above that required to provide for emergencies will be used to extend the services of the Association to its members.

The direct management of the Association is the responsibility of the University Committee on Health. The College Physician will hold regular daily consultation periods at the University hospital while the University is in session. The Matron, who is also an experienced nurse, is in charge of the hospital, keeps the records, and has the authority to make such regulations regarding visiting hours and the conduct of the hospital as may seem best in the interests of health and efficiency.

Medical and Hospital Fees

1. *Health Service Fee.* A fee of $1 per semester will be charged all students at the time of registration. This fee covers emergent medical attention to any student injured or taken ill while on the Campus, though it does not cover continued free consultations or continued hospitalization. It covers also the cost of the medical examination required of all students taking physical education or engaging in athletics. It entitles the student to such follow-up medical advice as may be desirable.

2. *Hospital Association Membership Fee.* This is an additional fee of $3 per semester which is required 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 fee. While primarily intended to safeguard the health of students away from home, the Association will receive into its membership any student living in Reno or Sparks who wishes to take advantage of its privileges by paying the membership fee. The fee must, however, be paid at the time of registration. It entitles the member to unlimited free consultations with the College Physician or hospital nurse at the regular scheduled hour but does not give him the right to call upon them at any time he chooses, except in cases justified as emergencies. The chief object of these consultations is the detection of illness before it becomes serious. For the cost of a single medical call the member may receive a whole semester of medical advice. The privilege should not be abused by expecting unreasonable service at unreasonable times. Persons, not members, going to the hospital for advice or treatment will be charged a reasonable fee except in emergent cases duly covered by the *Health Service Fee.*

3. *Hospital Bed Rates.* When it is necessary for a member to be hospitalized he will be charged a rate of $2 per day, which pays for meals, laundry, physician's visits, general nursing and other routine hospital expenses, but does not include night nursing or the other special services that may be required in serious illness.

University Hospital Association Rules

1. The University hospital is for the use only of those students who have paid the membership semester fee of $3 and whose names are on the membership list, except in emergent cases duly covered by the *Health Service Fee.*

2. Members are entitled to free consultations with the College Physician and Nurse at the hospital only during the regular consultation periods.

3. Members who prefer to see the College Physician at his downtown office may have the privilege of doing so by paying the special rate for Association members of $1 per visit.

4. Any calls for medical or nursing service outside the hospital or at other than the regular consultation periods, or from other persons than those on the regular hospital

staff, will have to be paid for by the individual making the request.

5. Students entering the University with some chronic ailment should not expect indefinitely to receive free treatment for it, nor does the Association guarantee free treatment for injuries or ailments contracted off the campus.

6. Members will be given free X-ray and other laboratory tests, free medicines and prescriptions *only* when such have been authorized by the College Physician.

7. When an operation is advised the patient must make his own arrangements for its performance and for the payment of medical, nursing and special hospital fees.

8. The University hospital has a small operating room, suitable for certain types of operation, for the use of which a special charge of $5 is made.

9. The Association assumes no responsibility for the payment of beds in other hospitals or for sickness expenses incurred without special authorization of the College Physician and of the University Health Committee.

10. Contagious cases cannot ordinarily be cared for in the University hospital. Such patients must go to the city or county isolation hospital or be cared for in private homes

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.

AMERICAN ASSOCIATION OF UNIVERSITY PROFESSORS

The Nevada Chapter of the American Association of University Professors meets informally seven or eight times during the University year to discuss questions of interest to the profession of University teaching and research. The objects of the Association as defined in its constitution are: "To facilitate a more effective cooperation among teachers and investigators in universities and colleges, and in professional schools of similar grade, for the promotion of the interests of higher education and research, and in general to increase the usefulness and advance the standards and ideals of the profession."

Any member of the faculty who holds, and has held for three years, a position of teaching or research with the rank of instructor or higher is eligible to become an active member of the Association. Dues are $4 a year, including subscription to the Association's Bulletin.

For the profession of university and college teaching and research, the position and functions of the Association are analogous to those of the American Bar Association and the American Medical Association in their respective fields.

THE ROCKS AND MINERALS STUDY CLUB

The Rocks and Minerals Study Club was organized in 1934 for any persons who are interested in the study of rocks and minerals. It holds regular meetings twice a month in the Mackay School of Mines building. At the meetings reports are presented by members or instructors. Class work consists of the study of the common rocks and minerals, particularly those of Nevada. Whenever possible, field trips are taken to study interesting geological fields near Reno and to collect rocks, minerals and fossils for class study. The work is supervised by some of the members of the School of Mines Staff.

THE ASTRONOMICAL SOCIETY OF NEVADA

The Astronomical Society of Nevada is an organization for all residents of Nevada interested in popular astronomy. The

society holds monthly meetings on the campus with discussions by members, occasional addresses by prominent astronomers, and motion pictures on astronomical topics. One of the aims of the society is to build up the astronomical section of the University Library. (Founded in March, 1935.)

HONOR AND HONORARY SOCIETIES

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

Coffin and Keys—An honor society composed of members of the faculty and men elected annually from the upperclasses who are considered leaders in student life and activity.

Blue Key—A national honorary, undergraduate, service fraternity composed of those upper classmen who have been leaders in University activities. This organization sponsors the annual Wolves' Frolic and the semiannual get-together dance at the beginning of each semester.

Block "N" Society—An honor society of men who have won the Block "N." Its purpose is to raise the standard of athletics and to promote good fellowship among alumni and resident members.

Gothic "N" Society — An honor organization of women, election to which is based on sportsmanship, sports participation, health habits, sophomore rank, scholarship average of 2.5 or better, participation in at least one nonathletic organization, attendance at W. A. A. meetings and practical unanimity of active members as to acceptability of candidate for election.

Sigma Gamma Epsilon—A national organization of geologists, mining engineers, metallurgists, and ceramists. Upperclass students in these subjects are eligible to membership in the local chapter. Biweekly meetings are held for the discussion of problems related to these professions.

Nu Eta Epsilon—A local honor society established at the

University of Nevada in May, 1923, for the purpose of encouraging higher standards of scholarship among engineering students. The qualifications for membership are the same as for the National Honor Society of Tau Beta Pi. Elections are held twice a year, and selections of eligibles are based entirely upon scholarship.

Sigma Sigma—An honor organization whose membership is elected from the students majoring in Home Economics on the basis of scholarship and ability shown in the field of Home Economics.

Delta Delta Epsilon—This is an honorary musical fraternity for University band men and women which promotes and encourages better musicianship and scholarship in the band, assists in discovering new talent on the campus, sponsors loyal spirit and devotion to University events and promotes an increasing interest in University-Community music. Any student musician accepted as a permanent member of the band is eligible for election to the organization after serving one semester of apprenticeship. Honorary membership is extended to a few outstanding musicians associated with the campus who, by contributing their services, have rendered valuable service to the band.

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.

Scabbard and Blade—A national honorary military society founded on the basic idea that military service is an obligation of citizenship. The active membership consists of the Cadet Officers of the Reserve Officers' Training Corps at the various institutions. Its purposes are: To unite the Departments of Military Science and Tactics of American Universities and Colleges into closer relationship; to preserve and develop the essential qualities of efficient officers; to promote good fellowship among Cadet Officers; and to prepare them to take an active and influential part in the community in which they may reside and to disseminate intelligent information concerning the military requirements of our National Defense. The local company was organized May 14, 1929.

Chi Delta Phi—A national literary society for women, whose purpose is to form a body of representative women

who, by their influence and their literary interests, will uphold the highest ideals of liberal education. (Charter granted April, 1931).

CLUBS AND ASSOCIATIONS

Engineering Societies—All engineering students and the engineering faculty are members of the Associated Engineers. This society meets from time to time during the college year for the consideration of social and scientific matters.

In addition to this general society there is a student branch of each of the four great national societies of Engineering. These groups hold monthly meetings for the discussion of scientific matters relating to their own branch of the profession.

The Women's Athletic Association — An organization which sponsors intramural athletics for women. It is a student organization administered by students. A member of the department faculty acting in an advisory capacity meets with the executive board. Meetings are conducted by the students, and no faculty member attends excepting by special invitation.

W. A. A. is a member of the Athletic Conference of American College Women which is a national organization with a membership of approximately 300 Women's Athletic Associations in colleges and universities throughout the United States.

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.

The Crucible Club—This is an organization of mining, metallurgical, and geological students and faculty. The club meets once a month and is addressed by prominent members of the mining profession. The Crucible Club is a student branch of the Society of the American Institute of Mining and Metallurgical Engineers.

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

The Normal School Club—The membership is open to all students registered in the Nevada State Normal School. Its purpose is primarily social. It has been wholesomely active in this field for a number of years.

The Mathematics Club—This is an organization composed of students interested in mathematics. Meetings are held monthly at which talks are made by students or faculty members on subjects of common interest.

Campus Players—Consisting of those members who have fulfilled the requirements for membership and have proved their ability to carry on the tradition of the theater and to make the dramatic literature of all time a living library.

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

The "Cercle-Francais"—A club organized for the special benefit of students of French. It offers opportunity for the practice of French conversation, provides entertainment and arranges for lectures based on French cultural topics.

Fraternities and Sororities — The following fraternities and sororities have chapters, the figures in parentheses giving the dates chapters were established in this University: National fraternities—Sigma Nu (1914), Sigma Alpha Epsilon (1917), Phi Sigma Kappa (1917), Alpha Tau Omega (1921), Sigma Phi Sigma (1922), Delta Sigma Lambda (1922), Beta Kappa (1925), Lambda Chi Alpha (1929). National sororities—Delta Delta Delta (1913), Pi Beta Phi (1915), Gamma Phi Beta (1921), Kappa Alpha Theta (1922), Beta Sigma Omicron (1931), Alpha Delta Theta (1932).

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.

Square and Compass—This is a chapter of a National Fraternity of campus members of the Blue Lodge Masons.

Musical Organizations—Organizations for the promotion of vocal and instrumental music are heartily encouraged. The groups at present are the Campus Choral Club, the University-Community Little Symphony Orchestra, the University Band and small ensembles. Membership is open to both men and women in all these groups and may be carried on the regular program for credit hours, or as a volunteer membership and considered as one of the student's outside activities. In addition to the above-named groups, there are the Campus Music Association for the promotion of music interests among the students and the Listening Hour Group, devoted to the study of classic and modern musical literature as represented in the fine library of phonograph records.

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

Omega Mu Iota—A club organized in 1923 by premedical students to promote scholarship and common interests. Its membership is open to second semester freshmen who have made an acceptable scholarship record in the work of the first semester and are preparing themselves for the study of medicine, dentistry or nursing.

Sundowners of the Sagebrush—Nevada's outstanding good fellowship organization is the Sundowners of the Sagebrush. It is composed entirely of men who are elected to membership, not because they have been outstanding in athletics, publications, or other academic activities, but because they have exhibited the characteristics of good fellowship.

Membership is not restricted to undergraduate students, but faculty members as well as post-graduates are active in the organization.

The Newman Club—This is a nonsecret organization open to all students of the University. Its purpose is to impart religious instruction and to promote social contact among the Catholics who are enrolled at the University. There are approximately 250 Newman Clubs already established in colleges and universities of the United States.

UNIVERSITY PUBLICATIONS

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

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 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.

This University is a member of the Far Western Conference, as are the following institutions: The Branch of the College of Agriculture of the University of California at Davis, Chico State College, College of the Pacific, and Fresno State College.

ELIGIBILITY RULES

To represent the University of Nevada in any athletic contest, whether in Freshman or Varsity sports, a student must be certified by the Faculty Athletic Committee as eligible for participation under the rules of the Far Western Conference, as well as the following University rules:

1. All students intending to participate in athletics must pass a physical examination satisfactory to the Head of the Department of Physical Education and Athletics for Men.
2. Students excused from required courses in Physical Education shall not be eligible for participation in any Freshman or Varsity sport without the written consent of the Head of the Department of Physical Education and Athletics.
3. No student on conduct probation shall be eligible for participation in any Freshman or Varsity sport.

FACULTY ATHLETIC COMMITTEE

The duties of the Faculty Athletic Committee are as follows:

1. To approve the schedules of all sports, both Freshman and Varsity, when the number of contests and the days taken from classes by games and trips are not, in the opinion of the Committee, considered excessive. Coaches shall submit their proposed schedules to the Committee before making final contracts or agreements for games.
2. To certify the scholastic eligibility of intending participants in all sports, both Freshman and Varsity. Cases of ineligibility shall be reported both to the coaches and students concerned.

WOMEN

The purpose of this department is three-fold: First, to develop skills which will make possible pleasurable participation in recreational activities; second, to overcome remediable physical defects; third, to give the student who is

interested in this field a scientific background upon which to base further study in physical education, and enough material drawn from current practices in physical education to qualify her to direct intelligently recreational activities in the elementary and high school.

All women in the University are given opportunity to engage in leisure time activities through the Women's Athletic Association, a student organization administered by students. A member of the department faculty acting in an advisory capacity meets with the executive board. She does not attend the general meetings except by special invitation. The activities sponsored by this organization are archery, badminton, baseball, basketball, dancing, equitation, hiking, hockey, rifle, swimming, tennis, winter sports. The Women's Athletic Association sponsors interclass and interorganization competition in as many activities as possible.

Work in physical education is required of all Freshman and Sophomore women. Upon entering, and at the beginning of each year, medical and physical examinations are given in order to determine individual needs. As far as possible the work of the department is adapted to these needs.

Women taking these courses are required to provide themselves with the regulation gymnasium suit and shoes costing between five and six dollars. Students are advised not to purchase suits before coming to the University. A fee of one dollar per semester is charged for locker and laundry. Each student must provide herself with a combination lock.

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. The blank form prescribed for this examination may be obtained from the University Registrar.

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 26 years of age. (See footnote.)

(b) Those who have had previous military training in 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.

(c) Aliens.

(d) Those physically unfit for military duty.

(e) Transfer students who enter this University with Junior standing having completed Freshman and Sophomore work in an institution not requiring Military Training.

Students excused from Military Training receive no credit toward advanced standing in Military except in cases coming under (b) above.

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. **Cadets will be held to a strict observance of these Regulations and of such orders and instructions as may be issued from time to time in connection with their military training.**

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

HONORS AND AWARDS FOR MILITARY EXCELLENCE

Honor Graduate—Under existing Army Regulations the University may designate as "honor graduate" one member of the second year advanced course. The term "honor graduate" is understood to apply to a graduate of the institution

No student will be permitted to enroll in the basic course after he has attained his 26th birthday, nor will any student be permitted to reenroll or be continued in the Advanced R. O. T. C. course at an age which would make his graduation therefrom impossible before the attainment of his 30th birthday.

and the R. O. T. C. whose attainments in scholarship have been so marked as to receive the approbation of the head of the institution, and whose proficiency in military training and intelligent attention to duty have merited the approbation of the Professor of Military Science and Tactics. He must be a citizen of the United States, of exemplary habits, and of good moral character. The designation as honor graduate does not give the individual any claim or right to an appointment in the Regular Army. However, for the past two years the University has been permitted to nominate its honor graduate for a commission in the United States Marine Corps.

Reserve Officers' Association Medal—This medal, donated by the Reserve Officers' Association, Department of Nevada, is awarded annually to that member of the basic course, second year, having the best record for attendance and discipline throughout the two years of the basic course.

Gold Medal for Drill and Discipline — The basic course cadet most proficient in drill is determined in competition held near the end of the school year. Of the five most proficient, the cadet having the best record for the year in attendance and discipline will be awarded a gold medal, donated by Company C, 7th Regiment, Scabbard and Blade.

Other Medals and Prizes — For particulars as to other awards for which cadets are eligible, see current Regulations for 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 Roll, which includes the upper five per cent of the undergraduate Student Body who have completed a minimum of fifteen semestral credits.

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. In the event of a tie, the University is privileged to buy the second medal at cost.

FRENCH MEDAL

(Established 1935)

A medal awarded by the French Ministry of Foreign Affairs through the intermediation of the French Consul General at San Francisco to that member of the graduating class who has shown high excellence in his or her French courses throughout the junior and senior years and who, in the opinion of the head of the department of Modern Languages, is most deserving of this honor.

PHILO SHERMAN BENNETT PRIZE

(Established 1909)

The Philo Sherman Bennett prize is the interest on a fund of four hundred dollars, given to the University by the Hon. Philo Sherman Bennett of New Haven, Connecticut. The prize is 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, founded by Dr. Henry Albert, formerly Director of the State Hygienic Laboratory, carries an annual value of twenty-five dollars and is being perpetuated in his memory by Mrs. Albert.

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

Lecturers	*University Year*
Dr. Robert A. Millikan	1924–1925
Dr. Edward T. Devine	1925–1926
Upton Close (Josef Washington Hall)	1926–1927
Dr. Will Durant	1927–1928
Count Ilya Tolstoy	1928–1929
Dr. Frank Morton McMurry	1929–1930
Dr. James H. Cousins	1930–1931

*Suspended for the years 1931–1937 at the desire of the executor of the estate of the donor.

THE THEODORA STUBBS FULTON MEMORIAL FOUNDATION

In the spring of 1925 a friend of Mrs. Theodora Stubbs Fulton began an annual annonymous gift of $50 per year in her honor, the gift to be invested in books in Biology and in Physical Education for Women.

RENO WOMAN'S CHRISTIAN TEMPERANCE UNION PRIZES

Beginning in the spring of 1927 the Reno Chapter of the Woman's Christian Temperance Union has annually offered a $25 prize for the best essay, written by a student of the University, entered in competition and dealing with the subject set each year by the National Woman's Christian Temperance Union Committee on Essay Contests. The English Department of the University has charge of this contest and selects the winner whose name is announced at Commencement. Beginning with 1932, the Reno Chapter has annually offered an additional $25 prize for the best essay, under conditions as given above, to competitors who are students of the University's Normal School. The School of Education has charge of this contest and selects the winner.

THE CLOVIS ALBERTA PRESTON MEMORIAL FOUNDATION

(Established 1929)

The above Foundation of $50 to $150, annually, for books in the Departments of French (50%) and History (50%) was established in the spring of 1929 by Mrs. Blanche Preston in memory of her daughter, Clovis Alberta Preston.

THE S. FRANK HUNT FOUNDATION

In the fall of 1934 Mr. S. Frank Hunt announced to the President of the University of Nevada and to the Director of the Mackay School of Mines that the first codicil of his will provides that the Mackay School of Mines will receive ten percent of his estate. In making this announcement Mr. Hunt said he was not all wise and therefore could not lay down hard and fast rules for the use of these funds, but would leave their use largely to the discretion of the University authorities. Mr. Hunt said further that he was paying a debt he feels he owes Nevada for the thirty years' protection he and his possessions have had under the State's laws, thereby expressing his esteem for its citizens through this gift to our University.

In 1935 Mr. Hunt gave the Regents of this University for the School of Mines 10,000 shares of Mountain City Copper Company's stock; 15,000 shares of stock in the Tybo Lead Company; $5,000 in cash to defray expenses of field trips and equipment; a 1935 Ford V–8 de luxe station wagon and a 1935 Ford coupe for field use. In addition to these gifts Mr. Hunt's will still provides that the School shall receive ten percent of his estate. With these gifts the Regents of the University established the S. Frank Hunt Foundation.

As now planned, Mr. Hunt's gifts will provide opportunity for members of the Staff of the Mackay School of Mines to take students or recent graduates of this School into the field, during summer vacations, set up camp and actually and actively study and map geological formations and structures of economic importance or prospect for minerals of economic importance. The entire summer vacation will be devoted to such purposeful student endeavor. His gifts will also provide opportunity for shorter trips of visitation to mines or mills actually in operation, or week-end trips into the field in connection with courses in geology or mining. These field opportunities will be in line with Mr. Hunt's judgment that the day of the old-fashioned hit-or-miss, untutored prospector has gone and that these outworn Argonauts should be replaced by scientifically trained field geologists.

THE ARMANKO SENIOR LIBRARY PRIZE

The Armanko Office Supply Company, beginning with Commencement in May, 1936, will present an annual prize of one hundred dollars worth of books at list price to be purchased by them for the student judged to possess the best private library owned by a member of the Senior class of the University of Nevada. The winning student may select the books to be awarded.

The winner shall be chosen each year, within the month before Commencement, by a special committee from the Faculty of the University of Nevada appointed by the President of the University. In selecting the winner, the committee shall take into account the quality as well as the number of volumes in each library and shall give weight to the painstaking endeavor of the student in assembling his library and to the student's delight in good books and his judgment and taste in the selection of his books.

WASHOE COUNTY BAR ASSOCIATION PRIZE

Beginning with the University year 1936–1937 the Washoe County Bar Association offers two annual cash prizes of $50 and $25, respectively, to the two undergraduate students of the University of Nevada who submit the first and second best theses upon some subject connected with the Constitution of the United States. Theses must be submitted under the following conditions:

1. The special subject for each year, chosen by a Committee of the Bar Association, will be announced in the University catalog of the preceding spring. The subject for the year 1936–1937 is, "Is It Necessary That the Constitution of the United States Be Amended to Take Care of Changing Economic Conditions, and, If So, What Amendment or Amendments Should Be Suggested?"
2. Theses must have from 1,500 to 3,000 words and must be submitted to the President of the University before March 1 in typewritten form without any name or other indication of the writer, but accompanied by a sealed envelope containing the writer's name and address.
3. Theses, identified only by numbers entered in the order of receipt at the President's office will be judged by a Committee of the Bar Association. Cash prizes will be paid to the winners at Commencement time through the Bar Association Committee.

A WORD TO DONORS

The University of Nevada will be greatly helped in its program of service to Nevada and to the Nation if it is given the aid of substantial general endowment funds. It can be helped too, at many points, by specific endowment gifts. In the hope that some donors may assure the University aid through their wills, usable forms covering bequests either for general or for specific gift endowments are here given:

FORMS OF BEQUESTS

GENERAL

I give and bequeath to the University of Nevada, located in the city of Reno in the Commonwealth of Nevada, ... dollars, to be used at the discretion of the Board of Regents of said University.

SPECIFIC

I give and bequeath to the University of Nevada, located in the city of Reno in the Commonwealth of Nevada, ... dollars, in trust for the following uses and purposes; that is to say: (Here specify in detail the purposes.)

It is advisable for any one contemplating a bequest for charitable purposes to ascertain the requirements of the law in the State in which he resides, and to take especial pains to comply with such requirements.

SCHOLARSHIPS AND FELLOWSHIPS

For 1936–1937 the following scholarships are available:

1. REGENTS' SCHOLARSHIPS

A. (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.

B. (Established 1922–1923)

By formal action the Regents have exempted the following Federal groups from the payment of the nonresident tuition charge:

(a) Officers and enlisted men in active service of the United States Army and Navy and their children.

(b) Sons and daughters of officers, warrant officers and enlisted men in active service in the Coast Guard.

C. (Established 1927)

At the request of the General Federation of Women's Clubs a total of not more than ten students in any one University year will be admissible without the payment of the nonresident tuition fee from Mexico, Central America and South America; provided, that not to exceed three such students from any one nation in this area receive this exemption within the same year. It is understood that such students will be required to pay all other regular University charges.

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. 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.

4. 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 Scholarships Committee to be the worthiest member of that class of individual ability and need and who is not receiving another scholarship. The Scholarships Committee shall choose an alternate for this scholarship, judging on the same conditions. This scholarship award is payable on September 15 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.

5. THE ROSE SIGLER MATHEWS SCHOLARSHIP FUND

(Established 1920)

This scholarship fund was established by Mr. Isaac R. Mathews of Reno, Nevada, in memory of his wife, Rose Sigler Mathews. The trust fund, given by Mr. Mathews for scholarship purposes, amounts to $6,900, and yields an annual income above $300. In 1931 Mr. Mathews presented to the University securities with face value of $3,300 with understanding the income from these shall go to him during his life and afterwards be added to the annual value of his scholarship. 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.

6. WASHOE COUNTY BRANCH OF THE NATIONAL ASSOCIATION OF UNIVERSITY WOMEN SCHOLARSHIP

(Established 1921)

The Washoe County branch of the National Association of University Women offers the Theodora Stubbs Fulton Memorial scholarship having annual value of $200. This was discontinued for the year 1930–1931, but was renewed for the year 1931–1932 at an annual value of $100. 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.

7. THE MARYE WILLIAMS BUTLER SCHOLARSHIP FUND

(Established 1921)

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

The income from this fund is to be awarded annually by the University Scholarships Committee, beginning with the Commencement of 1923, to the most worthy student who has completed University mathematics through calculus with an

*The payment of the second installment for the year 1932–1933 and subsequent installments have been suspended owing to closing of Reno banks.

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 Scholarships Committee and duly enrolled for the new year's work in the University of Nevada.

8. THE AZRO E. CHENEY SCHOLARSHIP FUND

(Established 1922)

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

9A. 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

*Suspended for the years 1934–1937 at the request of the donors.

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.

9B. THE GRAND ARMY OF THE REPUBLIC SCHOLARSHIP

(Established 1934–1935)

The Woman's Relief Corps of the Department of California and Nevada in 1934 began the establishment at this University of a fund which now has a principal of $500, to be known as the Grand Army of the Republic Memorial Scholarship Fund. The interest of this fund is to be used for scholarships for descendants of soldiers or sailors of the Union Army of the Civil War.

During the past University year this Relief Corps, through the Chairman of its Scholarship Committee at Berkeley, California, provided a $50 scholarship to Walter Bowrin, who qualified as a descendant of a Civil War veteran.

10. WOMEN'S ATHLETIC ASSOCIATION SCHOLARSHIP

(Established 1923)

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

11. THE MRS. CARL OTTO HERZ SCHOLARSHIP

(Established 1926)

This scholarship was established early in 1926 by Mrs. Carl Otto Herz of Reno and for 1929 and 1930 was continued by Mr. Carl Otto Herz. At the 1930 Commencement the heirs of Mrs. Herz presented to the University funds perpetually to endow this scholarship in her memory.

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

12. THE CHARLES ELMER CLOUGH SCHOLARSHIPS IN ENGINEERING

(Established 1926)

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

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

The scholarship sums will be payable to the respective winners, one-half on October 1 and the other half on April 1, following the award, provided the winners are

then enrolled in the Engineering College of the University of Nevada. In case any winner is not so enrolled, the scholarship sum will then be paid to a similarly chosen alternate satisfying the same conditions.

13. THE JAMES WARD GERMAN–KATHERINE MORRISON GERMAN SCHOLARSHIP

(Established 1926)

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

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

The following conditions shall be observed:

1. This scholarship is to be awarded alternately to a young man and to a young woman, beginning with an award to a young man for the two University of Nevada years beginning with August, 1927. Each winner shall hold this scholarship for two successive years, provided the conditions stated in 4 and 5, following, are satisfied.
2. Any nominee must have been graduated from a regular four-year Nevada high school, must have maintained a high scholarship record throughout the high school years, must be of good character and must have been helpfully active in the general life of the high school. The candidate must be one who, without aid of a scholarship would have to be self-supporting, in whole or in large part, if he came to college.
3. The family of the candidate must have been resident in Nevada at least four years prior to the date of nomination or, if the candidate is an orphan, or has been wholly self-supporting, then the candidate must have been a bona fide resident of Nevada for at least four years prior to his nomination.
4. The scholarship amount for each winner is to be $500 for each of two consecutive University of Nevada years, except that: (a) Whenever the award is made to a candidate recommended from the Reno or Sparks high schools, then the winner shall receive $350 for each of two years, and a second award of the remaining $150 shall be made for each of two consecutive years to the candidate of second highest record, and (b) when in the judgment of the President two candidates from high schools other than Reno or Sparks lead but have equally good records then the yearly $500 may be equally divided between these two winners. In each University year one-half of the scholarship amount due shall be paid on September 15 and the other half on January 15, provided that the winner is duly enrolled in the University of Nevada on these dates.
5. If within the two years of the scholarship any holder fails to maintain good standing in the University of Nevada, both in scholarship and in conduct, the President of the University is authorized to stop any further payments to this scholar. The sums accruing from such stoppage of payments or accruing because of any scholar's death or withdrawal from the University of Nevada shall be used to fund an added scholarship, or scholarships, in the discretion of the President of the University, to be awarded at the next regular time for choosing a new scholar. However, if any winner fails to take residence in the University of Nevada in the fall following his selection, the President of the University shall then award the scholarship to an available alternate who next best meets the conditions of the original award.

*Reduced to $250 for the years 1935–1937.

14. THE CARRIE BROOKS LAYMAN SCHOLARSHIP

(Established Spring 1929)

This scholarship, established in memory of Carrie Brooks Layman, provides each year for ten consecutive payments of $30 each to a worthy, self-dependent Sophomore or upper class man or woman student who, while in college, is an abstainer from debt, intoxicants and tobacco. The recipient of this scholarship is to be chosen each spring by the University Committee on Scholarships and prizes. If a son or grandchild of Mrs. Layman should enter the University of Nevada, then such son or grandchild shall have prior claim to this scholarship. During the earlier years of this scholarship payments were made to the winner by the donor through the Comptroller's office. The initial $30 payments of each semester shall be made on the winner's registration day, and shall be followed by similar payments on the 5th of each September, October, November, December, February, March, April and May, provided the winner is duly enrolled as a student at the University of Nevada. (Rent to replace cash for the year 1934–1935.)

15. PREMEDICAL–PRENURSING SCHOLARSHIP

(Established 1931)

This scholarship of one hundred dollars annual value, the gift of an anonymous donor, is to be paid fifty dollars each semester of the Sophomore year to that man or woman student, chosen by the University Scholarships Committee

and the Head of the Department of Biology, as the worthiest among the students who have completed the freshman year's course of this University of Nevada as premedical or prenursing students.

This scholarship shall be payable to the winner if duly enrolled in the Sophomore year in this University of Nevada, otherwise to an alternate satisfying the conditions and duly enrolled.

16. THE WILLIAM S. LUNSFORD SCHOLARSHIP IN JOURNALISM

(Established 1935)

Ethel Lunsford Frost and Harry J. Frost on the sixth day of May, 1935, established this seventy-five ($75) dollar annual scholarship, to be known as the William S. Lunsford Scholarship in Journalism.

This scholarship is to be awarded to a man or woman student fulfilling all of the following requirements:

1. A worthy moral character.
2. An unusual talent and future promise in the field of journalism.
3. An average grade no less than the average grade of the University.
4. A student specializing in Journalism.
5. A Junior or Senior during the University year the scholarship is held.

This scholarship shall be awarded by the University Committee on Scholarships and Prizes upon the recommendation of the Professor in charge of Journalism.

This same Committee and the Professor in charge of Journalism shall choose an alternate, satisfying the same conditions.

This scholarship shall be paid to the winner, one-half on September 15 and the other half on January 15, following the award, provided the winner is duly enrolled in the University of Nevada; otherwise it shall be paid to the chosen alternate, provided he or she is so enrolled.

17. THE VERN F. HENRY MEMORIAL MASONIC SCHOLARSHIP

(Established 1935)

Mrs. Merle K. Henry, in memory of her husband, the late Vern F. Henry, established for the five years, 1936 to 1941, inclusive, a Masonic scholarship of $50 annually. Any student is eligible for this scholarship if:

a. A son or daughter of Mason holding membership in one of the just and duly constituted Masonic lodges in Nevada;

b. Has Sophomore, Junior or Senior standing in the University of Nevada;

c. In actual attendance at this University when the scholarship is awarded;

d. In relationship with fellow students and faculty members shows a high degree in one or more of the following virtues: unselfishness, kindness, generosity, justice, charity, consideration, thoughtfulness, courage.

A committee of three shall choose one scholar each year, receiving recommendations from the University of Nevada Scholarship Committee but not bound by these recommendations in the selection. The committee shall consist of the Worshipful Master of Reno Lodge No. 13 F. and A. M., Professor Frederick W. Wilson of the University of Nevada, and a third member, who must be a Mason, selected by the two specified members. The winning scholar will be announced at Commencement and the scholarship sum will be paid within thirty days after the enrollment of the student for the following year.

18. THE RHODES SCHOLARSHIPS

Special attention is called to the Rhodes Scholarships in Oxford University, England, to which one appointment from the State of Nevada was made for each of the years 1907, 1908, 1910, and so on, omitting every third year until 1930 when a new district system of selecting American Rhodes Scholars was put into effect. By latest ruling of the Rhodes Scholarship officials Nevada has been placed in a district including five other States, and four Rhodes Scholars are each year to be chosen from this whole district. This new system went into operation in 1930. The scholarships are each of the value of approximately $2,000 a year, and are tenable for three years.

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

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

The ideal Rhodes scholar should excel in all three of the qualities indicated, but in the absence of such an ideal combination, committees will prefer a man who shows distinction either of character and personality, or of intellect, over one who shows a lower degree of excellence in both. Participation and interest in open-air and athletic pursuits form essential qualifications 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.
1908—William Scott Unsworth, Reno.
1910—Stanley Mayhew Wilton,[2] Goldfield.
1911—Cedric Harding Beebe,[3] Reno.
1913—Floyd Sherman Bryant, Sparks.
1914—Walter Clarence Jepsen, Verdi.
1917—Thomas Henry Edsall,[4] Reno.
1918—No appointment was made, owing to the war.
1919—Stanley M. Pargellis, Reno.
1921—Charles M. Chatfield, Reno.
1922—Leslie Maltby Bruce,[5] Reno.
1923—Paul A. Harwood, Reno.
1925—John Ocheltree, Reno.
1926—Fred Siebert, Reno.[6]
1928—Fred Anderson, Carson City.
1929—Francis Duborg, Reno.
1932—Alden Sibley, Reno.
1930, 1931, 1933, 1934, 1935—The District Committee did not appoint a Nevada candidate.

[1]Died February 20, 1920. [2]Withdrew before work completed. [3]Died January 4, 1926. [4]Died January 2, 1918. [5]Died January 8, 1923. [6]Died July 30, 1929.

The Rhodes Scholarships offer an unusual opportunity both for a university education in the Liberal Arts, the Sciences, Engineering, or the professions of Jurisprudence or Theology, and for travel among the chief centers of life and activity in foreign lands. These advantages, with the gift of financial means approximately sufficient 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 Secretary of the Committee, Charles M. Chatfield, 621 Washington Street, Reno, Nevada.

19. UNIVERSITY OF SAN FRANCISCO RESIDENT TUITION SCHOLARSHIP IN LAW

In 1935 the University of San Francisco began the annual gift of one year's free resident tuition in the first year of its Day Law School to a graduate of the University of Nevada, recommended by the President of the University of Nevada as being, in his judgment, well qualified scholastically and personally to profit by such scholarship.

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 $6,000 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. In practice loans are not made to freshmen nor can a loan in excess of $150 be made to any one student.

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 1931–1932 the committee was able to place forty 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 Dean Margaret E. Mack, Chairman of the Campus Employment Committee. 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 $450, allowing only about $75 for personal incidentals, for each Nevada student. Students from other States should add $150 for tuition. (See page 117 for tabular estimate 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 IN HAND TO START THE YEAR. THE UNIVERSITY CANNOT DEFER FEES DUE TO THE UNIVERSITY.

EXPENSES OF STUDENTS

TUITION

The Board of Regents is empowered to charge tuition to students who come from outside of Nevada. The Board of Regents set this *tuition charge, payable by students from outside Nevada, at $75 per semester,* beginning with August, 1925. *A two-thirds rebate is allowed on this nonresident tuition charge if the student formally withdraws within the first three weeks of any semester and a one-half rebate is allowed if the student withdraws between the end of the third week and the end of the eighth week. No rebate is allowed if the student withdraws after the end of the eighth week.*

Any student due to pay nonresident tuition who registers for seven or less credit hours in any one semester will be charged as nonresident tuition $10 for each credit hour in which he registers in lieu of the flat $75 nonresident charge per semester. In this special case, one-half of this nonresident tuition will be rebated if the student withdraws from the University within the first three weeks of the semester for which the student is registered. No rebate on this special tuition charge will be made if the student withdraws any time after the first three weeks of the semester.

There are two classes of applicants for enrollment entitled to exemption from this nonresident tuition:

I

Any applicant or student whose parents have lived in Nevada continuously for at least six full months.

II

Those applicants who have themselves lived in Nevada continuously for at least six full months just prior to the opening date of the semester in which the student matriculates in the University of Nevada.

The Board of Regents of the University has given instructions to the President concerning these two classes of applicants and has set the University penalty for false testimony in relation to residence as follows:

CASE I

The President of the University of Nevada is authorized and directed to grant exemption from nonresident tuition to any applicant for matriculation or to any student whose parents have been continuously resident in Nevada for at least six full months. "Parents" in this connection means both father and mother if both are living and are not legally separated. In case one parent is dead or if parents have been legally separated, this residence requirement may be satisfied by residence in Nevada, in accord with the requirement, of the one parent with whom the applicant is living. In case both parents are dead, the applicant may be exempt from nonresident tuition on this basis only if the applicant's legal guardian satisfies the Nevada family residence requirements above stated. In any case of doubt, the President is authorized and directed to require a sworn statement from a parent or guardian of the applicant testifying that the above residence requirements have been satisfied and further to require supporting sworn statements from at least two other established adult Nevada residents.

CASE II

The burden of proof is upon any applicant whose parents do not reside in Nevada to show that said applicant has been a bona fide resident of Nevada continuously for at least six full months just preceding the opening date of the semester of his matriculation in this University of Nevada. The President of the University is authorized and directed, before granting tuition exemption to any applicant whose parents do not reside in Nevada, to require: (a) Every such applicant to furnish a sworn statement that he has satisfied the above residence requirement, and (b) every such applicant to furnish sworn statements testifying to the applicant's fulfillment of the above residence requirement from each of two established adult Nevada residents.

If in any case after the admission of a student receiving exemption from nonresident tuition in either of the above classifications the University receives clear evidence that materially false statements as to Nevada residence have been made in the sworn statements, then the President of the University is authorized and directed to expel such student from the University of Nevada.

LATE REGISTRATION FEES

A fee of $3 is charged for registration later than the regular enrolling days of each semester. This fee is increased to $5 for those registering later than the end of the week including enrollment days. *No exception is made to the rule.* Each student shall complete his registration by 4 p. m. of the fourth 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.

MATRICULATION FEE

Each new student must pay a matriculation fee of $5. This fee is paid once only by each student at the time of first enrollment in the University.

REGISTRATION AND INCIDENTAL FEES

A registration fee of $2.50 per semester and an incidental fee of $5 per semester are payable by each student enrolled for more than five credit hours with the exceptions only of members of the University Staff and Nevada school teachers in active service.

UNIFORMS

Young women are required to provide themselves with a regulation gymnasium outfit costing about $5 or $6.

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

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

THE DORMITORIES

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

Dean of Women Margaret E. Mack and Matron Miss Claire Bemis live in Manzanita Hall and have supervision over it. Miss Anita Becaas is in charge of Artemisia Hall. Miss Bemis is in charge of the University Dining Hall.

Unless women students have applied for residence in excess of the number that can be accommodated in the women's dormitories, all unmarried women students who are not

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

Application for residence privileges in the women's dormitories should be made to the Dean of Women who will consider such applications in the order of their receipt. Special application blanks for hall residence will be sent on request made either to the Registrar of the University or to the Dean of Women. All applications, to be honored, must (1) Be on file with the Dean of Women at least one week prior to the opening day of any semester; (2) *Be accompanied by a sum covering the room rent for the semester concerned.* Room rent is as follows:

	1st. Sem.	*2d Sem.*
Room with roommate	$34.00	$36.00
Single room	42.50	45.00
Suite with roommate	42.50	45.00
Double room used by one person	51.00	54.00

Checks for room rent should be made payable to the Board of Regents. Such sum will be returned in full to the one making the reservation if due notification is sent of desire to cancel reservation, on or before the end of the first enrollment day of the term, to Dean Margaret Mack. If cancellation or withdrawal is made after the end of the first enrollment day, but before the end of the third week of the semester, two-thirds of the room fee will be rebated. If withdrawal is made after the end of the third week and before the end of the eighth week one-half of room fee will be rebated, and no rebate will be made if withdrawal occurs after the end of the eighth week.

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

All residents of women's dormitories are required to:

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

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

3. Be provided with the following articles: Bedding for single bed; one mattress protector, 3x6 feet, six good towels, two dresser scarfs, and personal toilet articles. If window hangings and rugs are desired, they must be supplied by the students. White curtains are furnished by the University. Young women should also have two large aprons for work in the laboratories. All articles of room equipment and wearing apparel should be plainly marked with the name of the owner.

4. Take care of their own rooms and linen.

The women's dormitories will open Saturday, August 22, 1936, to receive student residents for the University year 1936–1937.

Lincoln Hall — Lincoln Hall, the men's dormitory, has present accommodations for 78 men, and is under the direct supervision of the Master of Lincoln Hall, a resident member of the University faculty.

Application for residence in Lincoln Hall should be entered on special application blanks, which will be sent upon request made either to the Master of Lincoln Hall or to the Registrar of the University. Such applications will then be considered by the Master in the order of their receipt.

To be honored, all applications must: (1) *Be on file with the Master of Lincoln Hall at least one week prior to the opening day of the semester;* (2) *be accompanied by a sum covering the room rent for the semester concerned.* Room rent is as follows:

	1st Sem.	*2d Sem.*
Room with roommate	$38.00	$40.50
Single room	46.50	49.50
Double room used by one person	55.00	58.50

NOTE—As only eight single rooms are ordinarily available, early application for such accommodation is recommended.

Checks or money orders for room rent should be made payable to the Board of Regents. Rent will be returned in full to the applicant if due notification is sent to the Master of Lincoln Hall, on or before the end of the first enrollment

day of the semester, of desire to cancel the reservation. If cancellation or withdrawal is made after the end of the first enrollment day, but before the end of the third week of the semester, two-thirds of the room rent will be refunded. If withdrawal is made after the end of the third week, but before the end of the eighth week, one-half of the room rent will be refunded. If withdrawal is made after the end of the eighth week no refund will be allowed.

No one will be admitted to Lincoln Hall until his room rent for the semester has been paid.

All residents of Lincoln Hall are required:

(1) To abide by the regulations of the Hall as adopted by the Lincoln Hall Association, and approved by the Master of Lincoln Hall.

(2) To provide themselves with the following articles: One bedspread; at least two heavy blankets; one comfort; one pillow; one mattress protector, 3 x 6 feet; six towels; personal toilet articles. All clothing and personal property should be plainly marked with the name of the owner. If window hangings or rugs are desired, they also must be supplied by the individual.

The University furnishes lights, heat, sheets and pillowcases (which it launders), beds and mattresses, mattress covers, dressers, tables, and chairs. Equipment also is available for those who desire to do their own washing and ironing.

Lincoln Hall will open at 9 a. m. on Saturday, August 22, 1936, to receive students for the 1936–1937 University year. The Hall is closed between the first and second semesters.

THE UNIVERSITY DINING HALL

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

All women students residing in a University dormitory are required to board at the University Dining Hall. Men students may board at the University Dining Hall.

REGULATIONS GOVERNING THE UNIVERSITY DINING HALL

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

1. Visitors.
2. Members of the University Staff.
3. Nevada school teachers in active service. (These teachers are exempt from any University payments except laboratory fees, if they take laboratory courses for credit.)
4. Graduates of this or of any other four-year University course.
5. Students who are adult, bona-fide Nevadans, registering for five or less semestral University credits. (These students are exempt from all University fees and charges except the registration fee of $2.50 per semester and laboratory fees if laboratory courses are taken for credit. It is understood that any such new student of the University must pay the matriculation fee if at any later semester he enrolls for more than five credits.)

It is understood that any student registering in any of the above exempt classifications has the *privilege* of paying the student fee and securing the benefits which accrue to the students. This fee of $10 per semester includes subscriptions to the U. of N. Sagebrush and, in the second semester, to the Artemisia, pays up each student's class dues and covers admittance to all regular Varsity athletic events and must be paid to the Comptroller at the time of registration.

HEALTH SERVICE AND HOSPITAL FEES[1]

Hospital Association membership, $3.
Hospital bed rates, $2 per day (see page 71).
Health Service Fee, $1.

[1]See page 70 for explanation.

TABLE OF TUITION CHARGES, FEES AND DEPOSITS PER SEMESTER

	Fees
Agricultural Engineering 71	$5.00
Agricultural Engineering 73	2.00
Agronomy 1, 6	3.00
Animal Husbandry 4, 56	3.00
Animal Husbandry 59	1.50
Associated Students Fee	10.00
Bacteriology 51, 52, 53	5.00
Botany 1, 2	3.00
Botany 3, 55, 64	4.00
Botany 22, 53, 56, 58	1.00
Change of registration per course (see page 132)	1.00
Chemistry 9, 10	12.00
Chemistry 1, 2, 7, 8, 51, 52, 53, 64, 67, 71, 72, 74, 99, 100	8.00
Chemistry 5–6, 25, 80, 81, 82	4.00
Chemistry 200 (fee per credit hour)	4.00
Civil Engineering 52, 54, 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, 61, 62	3.00
Dairy Husbandry 59	1.50
Dairy Husbandry 55	2.00
Deposit, General	10.00
Deposit, Military	10.00
[2]Diploma (Degree or Certificate)	5.00
[3]Drawing Outfits	20 to 30.00
Education 30, 38, 41, 48	1.00
Electrical Engineering 61, 62, 63, 64	2.50
Electrical Engineering 67, 68, 76, 77, 78, 79, 85, 86	2.50 per lab.
Electrical Engineering 80, fee determined by work taken, maximum	[credit 10.00
Health Service	1.00
Geology 11, 51, 52, 55	2.00
Geology 12	3.00
Graduate fee for thesis binding	1.00
[4]History Syllabus	25¢ to 1.00
Home Economics 31, 32, 55, 83, 85, 94	5.00
Home Economics 33	3.00
Home Economics 9, 15, 16, 18, 66, 67, 68, 95	2.00

[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]See footnote 4, page 117.

[4]According to work being done.

	Fees
Home Economics 42, 88	1.00
Home Economics 45, 92	2.50
Home Economics 87	1.50
Hospital Association Membership	3.00
Incidental	5.00
Matriculation (new students only)	5.00
Mechanic Arts 2, 3, 5, 6, 7	5.00 per credit
Mechanical Engineering 64, 65, 66, 80	5.00
Metallurgy 51	15.00
Metallurgy 68, 71	5.00
Metallurgy 56	2.50
Metallurgy 79, 80, 179, 180 (deposit according to work).	
Mineralogy 1, 51	2.00
Mineralogy 2	3.00
Nature Study 1, 2	1.00
Physical Education (laundry and locker)	1.00
Physics 1b, 2b, 5, 6, 19, 20, 55, 56, 57, 58, 63, 77, 78	3.00
Physics 75, 76	5.00
Poultry 2, 8	2.00
Registration	2.50
[1]Transcript of student record	1.00
Tuition to non-Nevadans	75.00
Zoology 2, 4, 70	4.00
Zoology 7, 8	2.50
Zoology 64	2.00
Zoology 91–94, 201 (fee determined by type of work).	
Zoology 9	5.00
Zoology 59, 60	3.00

Students must be prepared to pay all of above charges due from them to the University at the time of completing their enrollments. These payments due cannot be deferred.

REBATES ON TUITION OR FEES

REBATES on above semestral charges will be made as follows to students who withdraw: On all laboratory fees and on nonresident tuition, a rebate of two-thirds if withdrawal comes before the end of the third week, a rebate of one-half between the end of the third week and the end of the eighth week, and no rebate after the eighth week. On all other charges there will be full rebate before the end of the third week and no rebate after.

[1]When two or more transcripts of record are asked for at the same time, each additional transcript will be 50 cents. *Request for transcript or transcripts,* MUST BE *accompanied by the stipulated fee. No student may be graduated or be furnished with a transcript of record unless and until all accounts with the University have been fully paid.*

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	$212.50	$225.00	$325.00
Room	80.00	90.00	125.00
[3]Laundry	25.00	35.00	50.00
[4]Books, stationery, etc.	30.00	35.00	45.00
Fees (laboratory, athletic, medical, etc.)	35.00	40.00	50.00
Fees (Registration and Incidental)	15.00	15.00	15.00
[5]Totals	$397.50	$440.00	$610.00

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

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

GOVERNMENT OF THE STUDENTS

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

OFFICIAL NOTICES

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

ADMISSION AND DEGREES

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

Applicants for entrance who cannot qualify for regular Freshman standing may be admitted as Limited Freshmen[1] or as Specials.[2]

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 present at least 10 of their 15 acceptable high school units from subjects 1 – 20, inclusive (p. 121). Of these 10, at least 6 must carry grades above 3.[3] "Special" students will be received.

SCHOLARSHIP REQUIREMENTS FOR NEVADA APPLICANTS

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 6 of their acceptable high school units with a grade better than 3. Of these 6 units, 4 must be in non-vocational subjects.

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

Applicants, who for any reason have been unable to secure

[1]Students presenting 13 or more but less than 15 acceptable units may be admitted as "Limited Freshmen."
[2]See p. 125.
[3]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.

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.

REQUIREMENTS FOR ADMISSIONS TO THE SEVERAL COLLEGES AND SCHOOLS

ADMISSION OF CANDIDATES FOR DEGREES

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

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

For unconditional[1] admission, 15 units.

I. *Required:* English, 3 units.
Mathematics, 2 units.

II. Ten of the fifteen required units must be from subjects 1 to 20, inclusive.

III. Not more than 5 units may be taken from subjects 21 to 32, and not more than the highest number indicated in any one of these subjects.

[1]Students presenting 13 or more but less than 15 acceptable units may be admitted as "Limited Freshmen."

TO THE COLLEGE OF ENGINEERING

ALL SCHOOLS

I. *Required:*	English	3 units
	[1]Mathematics and Science	5 units
	History	1 unit
II. [2]*Elective*		6 units
	Total	15 units

TO THE COLLEGE OF AGRICULTURE AND THE SCHOOL OF HOME ECONOMICS

I. *Required:*	English	3 units
	Social Science	1 or 2 units
	Mathematics	2 units
	Natural Science	1 or 2 units
II. *Elective*		7 units
	Total	15 units

SUBJECTS ACCREDITED FOR ADMISSION

Subject	*Units*[3]
1. English (a)	1
English (b)	1
English (c)	1
English (d)	1
2. Latin (a)	1
Latin (b)	1
Latin (c)	1
Latin (d)	1
3. Greek (a)	1
Greek (b)	1
Greek (c)	1
Greek (d)	1
4. German (a)	1
German (b)	1
German (c)	1
German (d)	1
5. French (a)	1
French (b)	1
French (c)	1
French (d)	1
6. Spanish (a)	1
Spanish (b)	1
Spanish (c)	1
Spanish (d)	1

[1]Recommended units: Algebra, 1½ units; Plane Geometry, 1 unit; Solid Geometry, ½ unit; Physics, 1 unit; Chemistry, 1 unit.

[2]The electives may be chosen from recognized high school subjects, but in no case may more than 5 units be elected in subjects 21 to 32, inclusive, and not more in any one of these subjects than the highest number which is indicated. It is advised that the electives include 2 units of foreign language, preferably modern language. In certain meritorious cases some entrance credit, not exceeding 1 unit, may be granted for practical experience.

[3]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.

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

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. Application for examination should be in the hands of the Committee on Admission and Advanced Standing at least one week in advance. These examinations cover all subjects required or accepted for admission, but cannot be taken for the purpose of raising grades obtained in preparatory schools.

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 present at least 10 of their 15 acceptable high school units from subjects 1–20, inclusive (p. 121). Of these 10, at least 6 must carry grades above 3.* "Special" students will be received.

Applicants for regular Freshman standing or for limited Freshman standing who come from Nevada high schools or from Nevada families must present 6 of their high school units with grades above 3, at least 4 of which 6 quality units must be in nonvocational subjects.

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

*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.

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. (See, also, three paragraphs beginning with ninth paragraph on page 146.

Students transferring from a recognized university, college, or junior college with 60 or more acceptable credits, who register in the College of Engineering or the College of Agriculture are not required to meet the requirements prescribed by this University for Military Training, Physical Education, Hygiene and Orientation. Such students must meet all other requirements for graduation prescribed by these colleges, including that of having fifty per cent of their grades above 3 in all of their work and no entrance deficiencies.

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

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 may obtain status as a regular student by fulfilling any one of the following requirements:

1. College credit may be canceled at the rate of four college credits for each high school unit necessary to fulfill the requirements of the college in which the student is registered.

2. Examinations may be taken within the first two years of residence at the University in sufficient of the subjects (1–32) listed as accredited for admission to fulfill the requirements of the college in which the student is registered.

3. A special student who has successfully carried the regular prescribed work of his college during four semesters and who has made a grade of 2.5 or better in 50% of his work and has no unremoved conditions or failures will be allowed to matriculate as a regular Sophomore student. If he has made a grade of 2.5 or better in 90% of his work and has no unremoved conditions or failures, he will be allowed to matriculate as a regular Junior student.

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.

Public School Teachers

Public School Teachers in actual service in Nevada may be permitted to enroll in a University course or courses during the University year and without payment of fees other than those required of all who enroll in laboratory courses.

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 and are due, if nonresident, to pay all regular fees and tuition. 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 classwork, 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 other than the registration fee of $2.50 per semester. These Nevada residents may visit in not to exceed two University courses.

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 as outlined under Requirements for Admission to Junior Standing, paragraph 2.

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.

High school graduates who have completed more than the full requirements for entrance may be granted college credit by the Advanced Standing Committee, but not after the end of the Sophomore year. No advanced standing will be given for history or natural science, or for the first two years of a foreign language, or for algebra or plane geometry.

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. The amount of credit granted on the basis of special examination will not exceed the regular work of one semester in the college in which the student is registered. Application for such advanced credit must bear the recommendation of the head of the department concerned and be accompanied by the written examination on which the recommendation is based.

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's representatives. This card will be filled out by the student in accordance with the directions thereon. All men students registering at the University for the first time will present themselves to the headquarters of the Military Department for enrollment or determination of their status with respect to military training requirements.

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 under twenty-one years of age 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. Any "regular" student who is twenty-one years of age and has carried the regular prescribed work of four semesters with 90% of it in grade 2.5 or better, and who has no unremoved conditions or failures, may have any entrance deficiencies canceled.

6. The signature of the instructor must be obtained for courses in which there are sections.

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

8. 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.

9. The registration card shall finally be deposited with the Registrar.

10. 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 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 must have satisfied all of the requirements of his prescribed college course as stated in the University Catalogue.

III. Requirements for Admission to Junior Standing

Only those students who have fulfilled one of the following conditions may register as Juniors:

1. Students who have no entrance deficiencies and who have fulfilled all specified Freshman and Sophomore requirements and have completed one-half the number of units required for graduation in the course for which they are registered. At least one-third of these units must have been carried with grades above 3.

2. Students transferring to the College of Arts and Science, who are graduates of recognized junior colleges or two-year

normal schools, requiring at least 60 units for graduation, and who have carried at least one-half of the work with grades above 3 (in no case will more than 64 units be accepted from these institutions); transfer students who present a Junior Certificate from a recognized four-year college or university which shows at least 60 units and the completion of all lower division requirements, not less than one-half of which shall carry grades above 3. Such students will not be required to fulfill the specific entrance, Freshman and Sophomore requirements prescribed by the University, but will be expected to fulfill all other requirements for graduation including that of carrying at least one-half of the work done at the University of Nevada with grades above 3.

3. Students transferring to the College of Arts and Science from other colleges or universities of recognized standing who present at least 60 acceptable[1] units, of which 10 units are in each of the following branches: English, a foreign language, social science, and natural science or mathematics. Such students will not be required to fulfill the specific entrance Freshman and Sophomore requirements prescribed by the University but will be expected to fulfill all other requirements for graduation, including that of carrying at least one-half of the work done at the University of Nevada with grades above 3.

IV. 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.

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

[1]Note—The term "acceptable" is intended to mean work of a distinctly college character, one-half of which shall carry grades above 3. Also see Section IX under University Rules Governing Registration.

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.

V. Late Registration

1. A fee of $3 shall be charged for registration after the two enrollment days but within the week including the enrollment days. A fee of $5 shall be charged anyone registering after the week including the enrollment days. There shall be no exception to this rule.

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

3. No person will be permitted to register as a student

after the close of the third week of either semester. This rule applies also to changes in registration.

4. Each student shall complete his registration by 4 o'clock p. m. of the third day after the day upon which 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.

5. After the registration coupon has been filed with the Registrar, a student may add a subject or change a subject in which he is registered in accordance with the regular rules, when he has secured the approval of his Dean and the instructor concerned, upon the payment of a fee of $1 for each course which he adds. The fee will be omitted when the change is caused by Faculty action or at the request of the Registration Committee.

VI. Hours of Registration

1. Including required Military Science and Physical Education, regular students in the College of Engineering shall register for eighteen hours. In the Normal School, in the College of Arts and Science, and in the College of Agriculture, including the School of Home Economics, 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:

(a) 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.

(b) 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,[1] effective at the time the transfer is made, the details of the transfer to be handled by the Registration Committee.

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 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 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 laboratory courses in which fees are charged rebates of such fees on withdrawal will be made as follows: Two-thirds rebate if formal withdrawal is made before the end

[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.

[1] See page 145 for Arts and Science requirements.

of a semester's third week; one-half rebate if formal withdrawal is made between the end of the third and the end of eighth week; no rebate in withdrawals after the eighth week.

VIII. Transfer of Students to One College from Another

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

IX. Honorable Dismissal

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

THE GRADING SYSTEM

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

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

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

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

REQUIREMENTS FOR GRADUATION

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

In order to graduate, a student shall have at least 63 of his credit hours above a grade of 3.

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. (Political Science 79–80.)

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

In the College of Agriculture 128 credits are required for graduation.

In the School of Home Economics 128 credits are required for graduation.

In the College of Engineering 144 credits are required for graduation.

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

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

DEGREES*

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

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

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

Combination curricula leading to the Bachelor's degree in each of two schools or colleges in the University may be arranged. The minimum requirements shall be one extra

*No student may be graduated or be furnished with a transcript of record unless and until all accounts with the University have been fully paid.

year in residence and 30 credit hours of extra work. More work may be necessary if the specific requirements of the department in which the degree is sought have not been met.

A charge of $5 is made for all baccalaureate diplomas. If two diplomas are granted in any one year, the charge will be $5 for the first, and $4 for the second. The charge for a teacher's certificate, if received in addition to a diploma, is $1. (See footnote, page 135.)

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 is required of all candidates for the master's degree, and may be offered by candidates for the bachelor's degree in 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 illustration 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 sample title given on page 139.

GRADUATE WORK AT THE UNIVERSITY OF NEVADA

Admission — Qualified graduates of the University of Nevada or of other accredited institutions may register as graduate students. Registration as a graduate does not mean that a student will become a candidate for an advanced degree.

Registration—Students wishing to register for graduate study 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, except that they are exempt from payment of the A. S. U. N. semestral fee of $10 unless they choose to pay it.

Degrees—The University of Nevada offers the following advanced degrees for work done in residence: Master of Arts and Master of Science.

Requirements for the Master's Degree — A total of 24 credits in course units will be required. Of these, not less than 12 must be offered in the major field and not less than six in a minor subject. In addition to the above, a thesis, having a minimum value of six credits will be required in the major department.

Application for Admission to Candidacy—The applicant for admission to candidacy shall obtain a blank from the Graduate Committee and present his application to this committee not later than the end of the third week of the semester preceding that in which the degree is to be conferred. The application must contain the following information and it must have the signed approval of the major and minor professors:

1. The name of the school and of the department from which the student received the Bachelor's degree; the title and date of the degree.
2. The major and minor subjects in which the advanced degree is sought.

3. The completed work for which the student has received graduate credit.

4. The work the student proposes to offer in order to satisfy the requirements.

Undergraduate Prerequisites—A student must have completed such undergraduate work as the department concerned, with the approval of the Graduate Committee, may require. The prerequisite for a graduate major normally amounts to an undergraduate major or its equivalent, and in no case may this prerequisite be less than the requirements for an undergraduate minor or its equivalent, in the department. If a student is deficient in undergraduate prerequisites he must make up such deficiencies.

Residence Requirement—

(a) For graduates of the University of Nevada: At least 12 semester hours of course work must be done in residence at the University of Nevada.

(b) For graduates of other accredited institutions: At least 16 semester hours of course work must be done in residence at the University of Nevada.

Advancement to Candidacy—After a student has completed at least 12 course units, acceptable for graduate credit at the University of Nevada, the Graduate Committee, on the written recommendation of his major and minor professors, may advance him to candidacy. Before such advancement, however, the applicant must submit to the committee the subject of his thesis and a brief outline of its probable content.

Courses—Courses numbered 50 to 100 may be offered for graduate credit, when they have been recommended by the head of the department concerned and approved by the Graduate Committee, and when they have not been offered previously for undergraduate credit. With respect to such courses, the graduate student must usually do more work than that which is required of an undergraduate registered in the same courses.

All courses numbered above 100 are essentially graduate courses.

Grades—An average grade of at least 2.0 must be obtained in all course work offered for the Master's degree. Graduate credit will not be given when the grade falls below 2.5.

Thesis—Each candidate for the Master's degree will be required to prepare a thesis that will show scholarly attainment and ability to do independent work. The credit for the thesis shall be determined, upon recommendation of the major professor, by the special committee on final examination.

The title of the thesis shall conform to the following:

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 MASTER OF ARTS
(Department of History)

By
JOHN EDWARDS SMITH
RENO, NEVADA
1937

At least two weeks before the date on which the degree is to be awarded, three copies of the thesis must be submitted to the Graduate Committee. It must be in final typewritten form on paper of approved quality and ready for binding when approved by the Committee.

The University Library will attend to the binding of the thesis. A small fee will be charged for this service. The charges for binding must be paid to the University Comptroller before the Committee will pass judgment on the thesis. In case the thesis should not be approved, any sums advanced for binding will be returned to the student. If approved, two copies of the thesis will be deposited by the Committee in the University Library and one copy will be retained by the major department.

Examinations—

(a) Course examinations. There will be such course examinations as the individual instructors may require.

(b) Final examination. Not later than one week before the date of conferring the Master's degree, the candidate will be given a general examination which may be oral, written, or both. It will cover his major work, his thesis, and his other courses. It will be conducted by a committee of five members of the faculty, one of whom shall be Director of Thesis, appointed by the Graduate Committee. The head of

the department in which the major work is taken will be chairman of the committee. The date of the examination will be announced publicly. The examination will be open to members of the University Staff and to guests invited by the major professor.

General Regulations—

1. Candidates for the Master's degree may not at the same time be candidates for any other degree.
2. Correspondence and extension courses will not be accepted for credit towards the Master's degree.
3. Members of the University Staff who are employed on full-time salary may not register for more than 6 credits during one semester.
4. No graduate student may register for more than 16 credits (including thesis) during one semester.
5. All the requirements for the Master's degree must be satisfied within a period of five calendar years preceding the granting of the degree.
6. The head of the major or minor departments may require a reading knowledge of a foreign language (usually French or German).
7. Undergraduates who lack less than 15 semester credits to complete the requirements for the Bachelor's degree may enroll in approved courses for graduate credit, provided such credit is requested by the student and approved by the professor at the time of enrollment.

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.D., Professor of History and Political Science.
PETER FRANDSEN, A.M., LL.D., Professor of Biology.
LEON WILSON HARTMAN, Ph.D., Professor of Physics.
REUBEN CYRIL THOMPSON, A.M., Professor of Philosophy.
ALBERT ELLSWORTH HILL, A.B., Professor of English.
JAMES REED YOUNG, Ph.D., Professor of Psychology.
Colonel JOHN PAUL RYAN, Professor Emeritus 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, Ph.D., Professor of Education.
PHILIP A. LEHENBAUER, Ph.D., Professor of Biology.
FRANCIS CLARK MURGOTTEN, Ph.D., Professor of Modern Languages.
THEODORE H. POST, M.A., Professor and Director of Music.
JOHN EDWARD MARTIE, M.P.E., Professor of Physical Education and Athletics for Men.
ELSA SAMETH, M.S., Professor of Physical Education for Women.
ALFRED LESLIE HIGGINBOTHAM, M.A., Professor of Journalism.
CHARLES ROGER HICKS, Ph.D., Professor of History and Political Science.
FREDRICK WOOD, Ph.D., Professor of Mathematics.
WILLIAM L. REED, Col., U. S. A., Professor of Military Science and Tactics.
SIGMUND W. LEIFSON, Ph.D., Professor of Physics.
VINCENT P. GIANELLA, M.S., Professor of Geology.
KATHERINE LEWERS, Associate Professor of Freehand Drawing and Art.
KATHARINE RIEGELHUTH, A.M., Associate Professor of English.
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 and Astronomy.
EDWARD G. SUTHERLAND, A.B., Associate Professor of Economics, Business and Sociology.
JESSIE P. POPE, M.A., Associate Professor of Home Economics.
JOHN R. GOTTARDI, M.A., Associate Professor of Modern Languages.
PAUL A. HARWOOD, M.A., Associate Professor of English.
S. ALLAN LOUGH, Ph.D., Associate Professor of Chemistry.

MERYL WILLIAM DEMING, Ph.D., Associate Professor of Chemistry.
CLAUDE CARSON SMITH, M.A., Associate Professor of History.
MILAN J. WEBSTER, Ph.D., Associate Professor of Economics, Business and Sociology.
EDITH RUEBSAM, M.A., Associate Professor of Education.
CHESTER M. SCRANTON, M.A., Associate Professor of Physical Education and Athletics for Men.
HAROLD N. BROWN, Ph.D., Associate Professor of Education.
WILLIAM R. BLACKLER,[1] M.S., Assistant Professor of Economics, Business and Sociology.
CHARLES LEROY BROWN, M.A., Assistant Professor of Biology.
RALPH A. IRWIN, M.S., Assistant Professor of Psychology.
MAE SIMAS, M.A., Assistant Professor of Physical Education for Women.
HENRY W. ISBELL, Captain of Infantry, U. S. A., Assistant Professor of Military Science and Tactics; Commandant of Cadets.
LORETTA ROSE MILLER, M.S., Assistant Professor of Biology.
ALDEN J. PLUMLEY, M.A., Assistant Professor of Economics, Business and Sociology.
ROBERT STUART GRIFFIN, B.S., Assistant Professor of English.
HORACE C. AYRES, Ph.D., Assistant Professor of Mathematics.
HARRY E. WHEELER, Ph.D., Assistant Professor of Geology.
DOUGLAS DASHIELL, M.A., Assistant Professor of Physical Education and Athletics for Men.
JAMES W. COLEMAN, M.A., Assistant Professor of Physical Education and Athletics for Men.
GRANT H. HUSTIS, Sergeant, U. S. A., Instructor in Military Science and Tactics.
LAWTON B. KLINE, M.A., Instructor in Modern Languages.
WILLIAM C. MILLER, M.A., Instructor in English.
GORDON L. ROBERTSON, M.S., Instructor in Economics, Business and Sociology.
EMILY ROSS, M.A., Instructor in Mathematics.
MRS. LEHMAN FERRIS, B.A., Assistant in French.
E. OTIS VAUGHN, B.S., Lecturer in Education.
CLYDE D. SOUTER, LL.B., Lecturer in Law.
BERTHA V. AKIN, B.S., Lecturer in Vocational Home Economics.
ROBERT B. JEPPSON, B.S., Lecturer in Education.
ROBERT A. LONG, A.B., Fellow in English.
KENNETH S. KARSTEN, A.B., Fellow in Chemistry.
MARY TORNEY RYAN, B.A., Secretary to the Dean.

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 aspect of life.

[1]Absent on leave, 1932–1936.

ADMISSION REQUIREMENTS

For admission requirements, entrance subjects and the number of credits belonging to each, see pages 119–128.

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 126 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 5	Foreign Language	3 or 5
History 1	3	History 2	3
Physics, Chemistry, Biology, or Mathematics	3 or 4	Physics, Chemistry, Biology, or Mathematics	3 or 4
Military and Physical Education	½ to 1½	Hygiene 1	1
Orientation 2	1	Military and Physical Education	½ to 1½
Elective	2	Elective	0–2

Sophomore Year

First Semester	*Units*	*Second Semester*	*Units*
English 41 or 44 (Literature)	2 or 3	English 42 or 45 (Literature)	2 or 3
Foreign Language	3	Foreign Language	3
Economics, Philosophy or Psychology	3	Economics, Philosophy or Psychology	3
Natural Science or Mathematics	2 to 4	Natural Science or Mathematics	2 to 4
Military and Physical Education	½–1½	Military and Physical Education	½–1½
Elective	3 to 5	Elective	3 to 5

Modern Foreign Language Requirement:

With a total of four entrance units, no further work is required.

With three entrance units the requirement is three college credits in the same language or course 1–2 in another language.

With two entrance units: Course 3–4 in the same language or course 1–2 in another language.

With one entrance unit: Courses 2 and 3–4 in the same language or courses 1–2 and 3 in another language.

With *no* entrance credit: Courses 1–2 and 3–4 in any one foreign language.

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

Science students may meet their language requirement by offering German 7–8 and 9–10.

History 1–2 is required of all Freshmen.

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

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

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

A variation of one or two units in the above requirements in Language, Social Science, or Natural Science may be made by the Registration Committee.

Students over 26 years of age are excused from Physical Education, Military, Hygiene and Orientation.

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

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

When students transfer to the College of Arts and Science from other colleges, they will be considered deficient in as many hours in Arts and Science as they are deficient in the college from which they transferred.[1]

No student may transfer from the College of Agriculture or the College of Engineering to the College of Arts and Science unless he be a regular student in the college from which he transfers.

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

The function of the College of Arts and Science is threefold: to provide for a broad cultural education, to prepare secondary school teachers and to prepare specialists. To

[1]The hour requirement for graduation from the College of Engineering is greater than that of either Arts and Science or Agriculture. Engineers transferring to either of these two colleges must make 2½ more than the 126 and 128 hours required for graduation from Arts and Science and Agriculture, respectively, for each semester they have been enrolled in Engineering.

accomplish these purposes, candidates for the baccalaureate degree must select courses totaling not less than forty hours' work designed primarily for Juniors and Seniors. These courses must be selected from a group of departments so as to include at least a major and a minor.

The combined work of the two or three departments should represent a unity of aim. The particular grouping, however, will depend upon the particular aim of the student. For example, a student making some one language his major may find it desirable to elect a considerable amount of History. A student planning to study medicine should elect a major in Biology or Chemistry, but may find it desirable to take additional work in Physics. Those intending to study law, should elect a major in Political Science or Economics, but may find it desirable to take advanced work in English. Students taking a Science major will generally find it profitable to have a good reading knowledge of French and German.

For a major not more than 27 credits may be required within a department of which at least 12 credits must be in courses numbered 50 or above.

For a minor not more than 18 credits may be required within a department of which in Arts at least 6 credits and in Science at least 4 credits must be in courses numbered 50 or above.

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 126 may be freely elected from any department, or, subject to the limit of twenty units named above, from the other colleges of the University.

REQUIREMENTS FOR THE DEGREE OF BACHELOR OF SCIENCE IN CHEMISTRY

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

Freshman Year

First Semester	*Units*	*Second Semester*	*Units*
Chemistry 7	4	Chemistry 8	4
English 1	3	English 2	3
History 1	3	History 2	3
Mathematics 15	5	Mathematics 16	5
Orientation 1	1	Hygiene 2	1
	16		16

Sophomore Year

First Semester	*Units*	*Second Semester*	*Units*
Chemistry 9	4	Chemistry 10	4
Mathematics 25	3	Mathematics 26	3
Physics 1a	3	Physics 2a	3
Physics 1b	1	Physics 2b	1
German 7	3	German 8	3
English 41	2	English 42	2
	16		16

Junior Year

First Semester	*Units*	*Second Semester*	*Units*
Chemistry 51	4	Chemistry 52	4
Chemistry 71	3	Chemistry 80	3
Chemistry 95	0	Chemistry 96	1
Bus. Adm. 41 or Econ. 1	3	Psych. 5 or Econ. 2	3
German 9	3	German 10	3
Elective	3	Elective	2
	16		16

Senior Year

First Semester	*Units*	*Second Semester*	*Units*
Chemistry 81	3	Chemistry 82	3
Chemistry 75	2	Chemistry 92	2
Chemistry 95	0	Chemistry 96	1
Chemistry 99	2	Chemistry 100	2
Electives	9	Electives	5
		Chemistry 72	3
	16		16

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

Students primarily interested in the engineering aspects of chemistry may enroll in the course leading to the degree of Bachelor of Science in Metallurgical Chemistry outlined on page 167 under the announcement of the School of Mines.

THE COURSE IN JOURNALISM

In its four-year professional course in Journalism, the University of Nevada offers approved preparation for the journalistic vocations.

Based on the principle that a well-rounded education coupled with training in Journalism is the best foundation for newspaper and magazine work, the Course in Journalism provides study in language, literature, the natural sciences, the social sciences, and the fine arts, as well as in Journalism.

While designed to prepare for general newspaper and magazine work, the Course in Journalism is so flexible as to enable the student to fit himself, in addition, for special journalistic activities in which he may be interested.

To complete the Course in Journalism, the student must present among the 126 units required for graduation:

1. Thirty credit hours in Journalism, including Journalism 21–22, News Gathering and Writing (6 credits); Journalism 51–52, News Editing (4 credits); Journalism 53, The History of Journalism in America (3 credits); and Journalism 81–82, Advanced Editorial Practice (2 credits).
2. Fifteen credit hours in English Literature.
3. Twenty-five credit hours in the social sciences, (History, Political Science, Economics, Business, Sociology, Psychology, and Philosophy), selected so that they represent at least five of these subjects.
4. Five credit hours in the fine arts.
5. The freshman and sophomore requirements of the College of Arts and Science.

Credits acquired in meeting the sophomore Arts and Science requirements in English literature and in the social sciences may be counted toward these group requirements in the Course in Journalism.

In choosing subjects to meet the group requirements of the Course in Journalism, the student will be guided by the professor of Journalism.

In each group, the following courses will be found best

to furnish the student with a comprehensive background. Those starred are especially valuable:

Journalism—1–2, 54*, 56*, 65*, 67, 68, and 79.

English Literature—68–69, 70*–71*, 72–73, 75*–76*, 77*, 78, 79, 80, 87–88.

Social Science:

Business—41, 43–44, 48, 85.

Economics—1*, 2*, 3, 4, 5, 51, 61*, 64*, 91, 92, 93*.

History—1–2, 5*–6*, 54, 57–58, 59*–60*, 62, 63*–64*, 81–82*.

Philosophy—1*, 51, 53*–54*, 61.

Political Science—1*–2*, 51, 53*, 93–94.

Psychology—5*, 10, 51*, 55*, 57*, 65*, 70.

Sociology—1*, 2*, 20, 71*, 72*, 81, 82.

The Fine Arts:

Art—1–2.

Classics—41*, 42*, 51–52, 61–62.

English—11–12, 21–22, 23–24, 81–82.

Music—10, 57.

In general, the course for the four years will follow this outline:

Freshman Year

First Semester	*Units*	*Second Semester*	*Units*
Journalism 1	2	Journalism 2	2
English 1 (Composition and Rhetoric)	3	English 2 (Composition and Rhetoric)	3
Foreign Language	3 or 5	Foreign Language	3 or 5
History 1	3	History 2	3
Physics, Chemistry, Biology or Mathematics	3 or 4	Physics, Chemistry, Biology or Mathematics	3 or 4
Military and Physical Education	½ to 1½	Military and Physical Education	½ to 1½
Orientation 2	1	Hygiene 1	1

Sophomore Year

First Semester	*Units*	*Second Semester*	*Units*
Journalism 21	3	Journalism 22	3
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
Elective	2	Elective	2

Junior Year

First Semester	*Units*	*Second Semester*	*Units*
Journalism 53 or 65	3	Journalism 56 or 79	3
Journalism 51 or 67	2	Journalism 52 or 68	2
English Literature	2 or 3	English Literature	2 or 3
Social Sciences	5	Social Sciences	5
Elective	2	Elective	2
	15		15

Senior Year

First Semester	*Units*	*Second Semester*	*Units*
Journalism 81	1	Journalism 82	1
Journalism 65 or 53	3	Journalism 79 or 56	3
Journalism 67 or 51	2	Journalism 68 or 52	2
English Literature	2 or 3	English Literature	2 or 3
Social Sciences 5	5	Social Sciences	5
Elective	2	Elective	2
	16		16

PRELEGAL COURSES

Students who intend to study law will find it advantageous to plan their college work in such a way as to comply with the requirements of the better law schools. Before registering, they should consult with Professor E. G. Sutherland, who is designated adviser for prelegal students. The requirements of the leading law schools usually embrace: (1) Fundamental courses in English; (2) logic; (3) a good general background in the social sciences; and (4) French, Latin or German. The following *recommended course* is based upon the above requirements:

Freshman Year

First Semester	*Units*	*Second Semester*	*Units*
English 1	3	English 2	3
French 1 or German 1	3	French 2 or German 2	3
History 1	3	History 2	3
Math. Chemistry, Physics or Biology	3–4	Math. Chemistry, Physics or Biology	3–4
Military and Phys. Ed.	1–2	Hygiene 2	1
Orientation 2	1	Military and Phys. Ed.	1–2
Elective	1	Elective	1

Sophomore Year

First Semester	*Units*	*Second Semester*	*Units*
English 41 or 44	2–3	English 42 or 45	2–3
French 3 or German 3	3	French 4 or German 4	3
Economics 1	3	Economics 2	3
Natural Science or Math.	2–4	Natural Science or Math.	2–4
Military and P. E.	½–1½	Military and P. E.	½–1½
Political Science 1	3	Political Science 2	3

For Junior and Senior work is recommended the following: General Psychology, Social Psychology, Logic, Constitutional History, Sociology, and basic courses in Political Science and Economics.

The leading law schools prefer that their students shall have completed four years of college work before entrance. Some, however, admit students upon the completion of three years of college work. The University will confer the degree of Bachelor of Arts upon any student of high rank who, after completing three years of approved work in this University, shall enter a law school of approved standing and shall complete worthily one year's work in such law school.

(A student of high rank is one who stands above the average of his class.) In order to receive the degree in this way the student must, at the end of his first year in the law school, present a signed testimonial from the Dean of the Law School to the Dean of the College of Arts and Science, such testimonial to include a statement of courses taken, grades achieved, and a recommendation that the degree be granted.

PREMEDICAL COURSES

The requirements for admission to Class A medical colleges vary from a minimum of two years of standard college work to the possession of a bachelor's degree. Students contemplating studying medicine should communicate early in their undergraduate course with the Dean of the particular medical college they may wish to enter in order to learn the exact entrance requirements at the time they expect to enter. Practically all medical colleges prescribe the same minimum of subject matter which includes general zoology, vertebrate anatomy, embryology, general inorganic chemistry, qualitative analysis, organic chemistry, general physics, and a reading knowledge of French or German. Quantitative analysis is also required by some and advised by others. Plane Trigonometry and College Algebra are required by a few schools and strongly advised to insure an adequate foundation for bio-physical and bio-chemical studies in the medical school.

PREMEDICAL COURSE

To permit the inclusion of all the essential premedical subjects and to satisfy the University requirements for the B.A. degree, the following arrangement of the course of study has proved a desirable one. Considerable variations from it are permissible.

Freshman Year

First Semester	*Units*	*Second Semester*	*Units*
English 1	3	English 2	3
History 1	3	History 2	3
General Chemistry	4	General Chemistry	4
Botany 3	4	Zoology 2	4
Orientation 2	1	Hygiene 2	1
Military and Physical Education	½–1½	Military and Physical Education	½–1½

Sophomore Year

First Semester	*Units*	*Second Semester*	*Units*
English 41	2	English 42	2
German	3 or 4	German	3 or 4
Quantitative Analysis	4	Quantitative Analysis	4
Zoology 9	4	Mathematics 22	4
Psychology	3	Elective	3
Military and Physical Education	½–1½	Military and Physical Education	½–1½

Junior Year

First Semester	*Units*	*Second Semester*	*Units*
German	3	German	3
General Physics	4	General Physics	4
Organic Chemistry	4	Organic Chemistry	4
Bacteriology 51	4	Zoology 64 (Embryology)	4

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

In 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	3	Zoology 2	4
English 1	3	English 2	3
History 1	3	History 2	3
German or French	3 or 4	German or French	3 or 4
Physical Education	1	Hygiene 2	1
Orientation 2	1	Physical Education	1
Elective	1	Elective	1

Sophomore Year

First Semester	*Units*	*Second Semester*	*Units*
Physiology (Zoology 7)	3	Physiology (Zoology 8)	3
English 41	2	English 42	2
Economics 1	3	Economics 2	3
German or French	3	German or French	3
Chemistry 5	3	Chemistry 6	3
Physical Education	½	Physical Education	½
Elective	2	Elective	2

Junior Year

First Semester	*Units*	*Second Semester*	*Units*
Zoology 9	4	Zoology 64	4
Bacteriology 51	4	Zoology 70	2
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 160, 161.

THE MASTER'S DEGREE IN ARTS AND SCIENCE

For the requirements for the master's degree, see pages 137–140.

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, Ph.D., Professor of Education.
THEODORE H. POST, A.M., Professor and Director of Music.
JOHN EDWARD MARTIE, M.P.E., Professor of Physical Education and Athletics for Men.
ELSA SAMETH, M.S., Professor of Physical Education for Women.
VINCENT P. GIANELLA, M.S., Professor of Geology.
KATHERINE LEWERS, Associate Professor of Freehand Drawing and Art.
MARGARET ELIZABETH MACK, M.A., Associate Professor of Biology.
SILAS CALVIN FEEMSTER, A.M., Associate Professor of History and Political Science.
EDITH M. RUEBSAM, M.A., Associate Professor of Education.
HAROLD N. BROWN, Ph.D., Associate Professor of Education.
CHESTER M. SCRANTON, M.A., Associate Professor of Physical Education and Athletics for Men.
MAE SIMAS, M.A., Assistant Professor of Physical Education for Women.
E. OTIS VAUGHN, B.S., Lecturer in Education.
ROBERT B. JEPPSON, B.S., Lecturer in Education.
BERTHA V. AKIN, B.S., Lecturer in Vocational Home Economics.
MRS. HELEN KANNENBERG, Secretary to the Dean.

COOPERATING TEACHERS

In the Reno High School—

MARGARET ERNST, B.A., Mathematics.
DAVID W. FINCH, B.A., English and History.
KARL W. GALLAGHER, B.A., Mathematics and Science.
KATHLEEN GRIFFIN, B.A., Commercial.
EDITH C. HARRIS, B.A., Latin.
MARGUERITE R. HUGHES, B.S., Home Economics.
MILDRED KLAUS, B.A., Commercial.
EFFIE M. MACK, Ph.D., History and Civics.

RANDALL T. ROSS, B.A., Public Speaking and English.
ALWINE E. SIELAFF, B.A., Geometry.
BUELAH SINGLETON, B.A., History and English.
EDWIN C. STRENG, M.S., Opt. D., Chemistry.
FRANCES HUMPHREY, B.A., English.
AGNES BELL, B.A., French.
DON HARVEY BELL, B.A., English.
JOHN L. CARLSON, B.S., Biology.
MARGARET FULLER, B.A., English.
LUCILE SANFORD, B.S., Spanish and History.

In the Sparks High School—

MILDRED GOBLE, B.S., Home Economics.
EVELYN MANTLE, B.A., English.

In the North Side Junior High School—

ESTELLA PROUTY, M.A., History and English.
ELIZABETH SMITH, Social Science.
MRS. CATHERINE LUKE, B.A., Social Science.
ESTHER SCOFIELD, B.S., Home Economics.
GEORGIA MACNAIR, M.A., History.
MRS. LOIS BICKNELL, B.A., Mathematics and Spanish.
WINIFRED THOMAS, B.A., History.
MARVEL RANSON, B.A., English.
RUTH FOSTER, M.A., English and Physical Education.
ANNA FREY, B.S., Home Economics.

In the B. D. Billinghurst Junior High School—

GERTRUDE WYCKOFF, B.A., History.
RUTH JONES, B.S., Home Economics.
GLADYS CAFFERATA, B.A., History.
HELEN DUNN, B.A., History and English.
ROSE TAVERNA, B.A., English.
JOYCE SNYDER, B.S., Music.
ANNA MAUDE STERN, B.A., Spanish and History.

In the Reno Elementary Schools—

GRACE WARNER, Low Sixth and High Fifth Grades.
ELEANOR MILLER, Fifth Grade.
FAIRY F. ADAMS, Low Fourth and High Third Grades.
ALPHONSINE LIOTARD, Low Third and High Second Grades.
RITA A. CANNAN, Sixth Grade.
ISABELLE MOE, Fifth Grade.
EMMA N. SMITH, Fourth Grade.
MAY CLARESSE, First Grade.
MRS. PEARL G. DOMINGUEZ, High Sixth Grade.
VIOLET PALSGROVE, Fourth Grade.
MRS. EVA B. POSVAR, Second Grade.
THELMA WILLIAMS, Low Second and High First Grades.
HELEN HANLEY, High Third and Low Fourth Grades.
MAMIE TOWLES, Low Sixth and High Fifth Grades.
ADNA BROWN, Third Grade.

ELLEN RUSSELL, B.A., Low Third and High Second Grades.
EDITH HURD, Sixth Grade.
EDITH PEDDICORD, Fifth Grade.
MATILDA FERETTI, Low Fourth and High Third Grades.
DAISY BENJAMIN, First Grade.
ELIZABETH MCCORMACK, B.A., First Grade.
RENA SEMENZA, B.A., Kindergarten.
EMILIE YPARRAGUIRRE, Fourth 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 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 121–126.

TEACHERS' ELEMENTARY CERTIFICATE

FIRST-GRADE CERTIFICATES

Students who satisfy the admission requirements and complete both years of the following outlined curriculum 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 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.

A first grade elementary certificate, valid for three years, will be issued by the State Board of Education to graduates of the four-year university course who present 18 semester hours of professional work, including four semester hours in methods of teaching in elementary school subjects and at least four hours of supervised teaching in the elementary grades. This certificate is renewable.

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 complete the equivalent of a two-year normal school course for the first-grade certificate.

SUPERVISED TEACHING

No supervised teaching in the Freshman year. Candidates for supervised teaching must have a general average of 3 or better; must have an average in introductory educational course of 2.5; and must have demonstrated a genuine interest in the teaching field. If a student should fail in any of these points his eligibility to teach will be subjected to serious question.

Under the sanction of the officials of the Reno and Sparks

public schools, student teaching is permitted and the teachers of these schools cooperate with the School of Education in supervising this work.

COURSE OF STUDY

First Year	First Semester	Second Semester
Orientation 2	1	...
Education 20 (Principles of Teaching)	...	3
Education 23 (Problems in Rural Education)	2	...
Education 24 (School Law)	...	1
Education 25 (Observation)	1	...
Education 30 (Teaching of the Social Studies)	...	2
Education 33 (Community and School)	...	2
Education 34 (The Teaching of English)	3	...
Education 41 (Constructive Activities)	...	1
Nature Study 1–2	2	2
Home Economics 9 (General Home Economics)	3	...
Geology 1 (Physiography)	2	...
Music 1–2	1	1
Physical Education 1–2	1	1
Art 1 and 2	1	1
Political Science 79–80	½	½
Penmanship	0	0
English 1 (Composition and Rhetoric)	...	3
	17½	17½

Second Year	First Semester	Second Semester
Psychology 5 (General Psychology)	3	...
Psychology 6 (Educational Psychology)	...	3
Education 28 (Practice Teaching)	5	...
Education 29 (Practice Teaching)	...	5
Education 35 (Teaching of English)	...	3
Education 46 (Management and Organization)	...	2
Education 48 (Tests and Measurements)	1	...
English 2 (Composition and Rhetoric)	3	...
Hygiene 4 (For Teachers)	2	...
Philosophy 28 (Social Ethics)	...	2
Education 21 (Teaching of Music)	2	...
Physical Education 10 (Material Course)	...	1
Art 8 (Art for Teachers)	...	1
	16	17

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 TEACHER'S CERTIFICATE

The high school teacher's certificate is granted by the State Board of Education to any graduate of the four-year course who has met the requirement. This requirement consists of the following prescribed courses:

In addition to the regular academic preparation, 18 hours of professional work are required, distributed as follows: Psychology 6 (3 hours), Education 60 (3 hours), Education 63 (1 hour), Education 71 (3 hours), Education 75 (2 hours), Education 76 (2 hours), Education 82 (2 hours), and two hours of special methods courses (Education 64, 65, 66, or 88). Teachers of vocational subjects must hold Special Vocational Certificates.

SUPERVISED TEACHING

The candidate for supervised teaching must have Senior standing; must give evidence of preparation to teach in two high school subjects by having at least 12 semester hours or its equivalent in each; must have a general average of 2.5; must have an average in his teaching subjects of 2; must have an average of 2.5 in his introductory educational subjects; and must have demonstrated a genuine interest in the teaching field. If a student should fail in any of these points his eligibility to teach will be subjected to serious question.

IMPORTANT

All candidates for the high-school teacher's diploma should confer with the Dean of the School of Education at the beginning of the Sophomore year, as it is highly desirable that they begin their professional studies at that time. *Prospective high school teachers should choose their academic major and minor at the beginning of the Sophomore year* and elect courses in those subjects during that year. Failure to do this will limit the opportunity for choice in the advanced academic courses and would, in some cases, necessitate an extra semester of work beyond the bachelor's degree.

CALIFORNIA CERTIFICATION

Elementary and Junior High School Credentials: Graduates of the University of Nevada who in this University have completed the requirements for the California general elementary and junior high school credential may be recommended directly to the California State Department of

Education for this credential by the University's Department of Education. These requirements for the *elementary certificate* include the completion of a minimum of twenty-four semester hours of work, approved by the University's Department of Education, as affording adequate preparation for teaching the statutory subjects, with not less than eight semester hours of directed teaching. If the applicant has completed one major and one minor in subjects taught in high school, he will also be granted the junior high school credential. The *Junior high school credential includes* (a) eighteen semester hours of work in education with not less than four semester hours of directed teaching and (b) one major and one minor in subjects taught in high school.

Secondary Credentials — Students who have secured a Master's degree from the University of Nevada and who have completed the requirements for the California general secondary credential will be granted this credential by the California State Department of Education upon the completion in a California teacher-training institution of six units of professional courses to be prescribed. These requirements for the general secondary credential include (a) eighteen hours of specified work in the University's Department of Education and (b) one major and one minor in high school subjects.

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.
HORACE PRENTISS BOARDMAN, C.E., Professor of Civil Engineering.
PETER FRANSDEN, A.M., LL.D., Professor of Biology.
LEON WILSON HARTMAN, Ph.D., Professor of Physics.
WALTER S. PALMER, E.M., Professor of Metallurgy.
Colonel JOHN PAUL RYAN, Professor Emeritus of Military Science and Tactics.
STANLEY G. PALMER, M.E., Professor of Electrical Engineering.
GEORGE WALLACE SEARS, Ph.D., Professor of Chemistry.
FREDERICK L. BIXBY, C.E., Professor of Civil Engineering.
JAY ARNOLD CARPENTER, E.M., Professor of Mining.
JOHN EDWARD MARTIE, M.P.E., Professor of Physical Education and Athletics for Men.
FREDRICK WOOD, Ph.D., Professor of Mathematics.
WM. L. REED, Col. U. S. A., Professor of Military Science and Tactics.
SIGMUND W. LEIFSON, Ph.D., Professor of Physics.
VINCENT P. GIANELLA, M.S., Professor of Geology.
KATHERINE LEWERS, Associate Professor of Freehand Drawing.
KATHARINE RIEGELHUTH, A.M., Associate Professor of English.
GILBERT BRUCE BLAIR, A.M., Associate Professor of Physics and Astronomy.
SILAS CALVIN FEEMSTER, A.M., Associate Professor of History and Political Science.
PAUL A. HARWOOD, M.A., Associate Professor of English.
WILLIAM I. SMYTH, E.M., Associate Professor of Metallurgy.
S. ALLAN LOUGH, Ph.D., Associate Professor of Chemistry.
MERYL WILLIAM DEMING, Ph.D., Associate Professor of Chemistry.
IRVING J. SANDORF, M.S., Associate Professor of Electrical Engineering.
CHESTER M. SCRANTON, M.A., Associate Professor of Physical Education and Athletics for Men.
HENRY W. ISBELL, Captain of Infantry, U. S. A., Assistant Professor of Military Science and Tactics; Commandant of Cadets.
HAROLD CLARK AMENS, B.S., Assistant Professor of Mechanical Engineering.
ALDEN J. PLUMLEY, M.A., Assistant Professor of Economics.
ROBERT STUART GRIFFIN, B.S., Assistant Professor of English.
HORACE C. AYRES, Ph.D., Assistant Professor of Mathematics.
HARRY E. WHEELER, Ph.D., Assistant Professor of Geology.
DOUGLAS DASHIELL, M.A., Assistant Professor of Physical Education and Athletics for Men.

JAMES W. COLEMAN, M.A., Assistant Professor of Physical Education and Athletics for Men.
BERTRAND F. COUCH, Instructor in Mine Accounting.
GRANT H. HUSTIS, Sgt., U. S. A., Instructor in Military Science and Tactics.
WILLIAM C. MILLER, M.A., Instructor in English.
JOHN TORNEY RYAN, Instructor in Shop Practice.
EMILY ROSS, M.A., Instructor in Mathematics.
MRS. LEHMAN FERRIS, B.A., Assistant in French.
ROBERT A. LONG, A.B., Fellow in English.

AIM

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

EQUIPMENT

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

ADMISSION REQUIREMENTS

For admission requirements, entrance subjects, and the number of credits belonging to each, see pages 119–128.

REQUIREMENTS FOR A BACCALAUREATE DEGREE IN ENGINEERING

The degree of Bachelor of Science in (a) Mining Engineering, Metallurgical Engineering, or Geological Engineering, (b) Mechanical Engineering, (c) Electrical Engineering, and (d) Civil Engineering is conferred upon students who have satisfactorily completed the full course in the Schools of (a) Mines, (b) Mechanical Engineering, (c) Electrical Engineering, and (d) Civil Engineering, aggregating 144 semester units.

Combination curricula leading to the bachelor's degree in more than one school in the University may be arranged.

The minimum requirements shall be one extra year in residence and 30 credit hours of extra work. More work may be necessary if the specific requirements of the department in which the degree is sought have not been met.

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.

Students over 26 years of age are excused from Physical Education, Military, Hygiene and Orientation.

COLLEGE OF ENGINEERING

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 15	Mathematical Analysis	..	5
General Engineering 5	Elementary Mechanical Drawing	2	..
*General Engineering 2	Freehand Drawing	1	..
General Engineering 1	Orientation	..	1
Military 1	Basic Course	1	..
Physical Education 1	Developmental Exercises	½	..
*Elective		..	1
			17½

Freshman Year—Second Semester

English 2	Composition and Rhetoric	..	3
Chemistry 6	General Inorganic Chemistry	2	1
Mathematics 16	Mathematical Analysis	..	5
General Engineering 6	Descriptive Geometry	2	..
Geology 10	Engineering Geology	..	3
Hygiene 1	Personal Hygiene	..	1
Military 2	Basic Course	1	..
Physical Education 2	Developmental Exercises	½	..
			18½

SCHOOL OF MINES

Subject to approval by the Engineering Faculty, substitution of courses may be made in the following School of Mines curriculum. This makes it possible to arrange satisfactory courses in

Mining Engineering
Geological Engineering
Metallurgical Engineering
Metallurgical Chemistry

and in the different phases of the separate branches such as design work, operating work, sales work, etc.

*Courses marked with an asterisk may be substituted by other courses when approved by the Head of the School and the Dean of the College. Such substituted courses, however, must form part of a systematic course of training.

Summer Work

Mining 5	Practical Mine Work	Four Weeks

Sophomore Year—First Semester

		LAB.	LEC.
Mathematics 25	Differential Calculus	..	3
Physics 3	Engineering Physics	..	5
Geology 11	Determinative Mineralogy	2	..
Chemistry 9	Qualitative Analysis	3	1
Geology 9	Historical Geology	..	3
Military 3	Basic Course	..	1
Physical Education 3		½	..
		5½	13
			18½

Sophomore Year—Second Semester

Chemistry 10	Volume Analysis	3	1
Mathematics 26	Integral Calculus	..	3
Physics 4	General Physics for Engineers	..	5
Metallurgy 4	Engineering Metallurgy	..	2
Geology 12	Blowpipe Analysis	2	..
Geology 14	Descriptive Mineralogy	..	2
Military 4	Basic Course	..	1
Physical Education 4		½	..
		5½	14
			19½

Junior Year—First Semester

Mining 51	Excavation	..	3
Metallurgy 51	Assaying	3	1
Mathematics 55	Analytic Mechanics	..	3
Economics 65	Introduction to Economics, Business and Sociology	..	3
Civil Engineering 51 and 52	Surveying	2	2
Geology 51	Petrology	1	1
		6	13
			19

Junior Year—Second Semester

Mining 52	Mine Plant	..	3
Metallurgy 66	Ore Dressing	..	2
Metallurgy 68	Ore Dressing	2	..
Geology 60	Economic Geology Nonmetallic	..	3
Civil Engineering 53 and 54	Surveying	2	2
Geology 52 (or Metallurgy 56)	Petrography (Metallography)	2	1
		6	11
			17

Summer Work

Civil Engineering 58	Summer Surveying	Four Weeks

Senior Year—First Semester

Geology 61	Economic Geology of Metals	..	3
Mining 61	Mining Methods	..	3
Metallurgy 71	Hydro-Metallurgy	1	2
Metallurgy 61	Pyro-Metallurgy, nonferrous metals	..	3
Political Science 79		..	½
Project in Mining 79, Metallurgy 79 or Geology 79		2	..
Electrical Engineering 75	Electricity in Mining	..	3
		3	14½
			17½

Senior Year—Second Semester

		LAB.	LEC.
Mining 72	Mine Administration	..	3
Mining 74	Mineral Industry Economics	..	3
Civil Engineering 90	Hydraulics	..	3
Civil Engineering 72	Testing Materials	1	..
Civil Engineering 74	Strength of Materials	..	3
Political Science 80		..	3
Project in Mining 80, Metallurgy 80 or Geology 80		2	..
Elective		..	1
		3	13½
			16½

SCHOOL OF MECHANICAL ENGINEERING

Freshman Year—Both Semesters

Uniform course for all Engineering Schools. See page 166.

Sophomore Year—First Semester

		LAB.	LEC.
Physics 3	General Physics for Engineers	..	5
Physics 5	Physical Measurements	2	..
Mathematics 25	Differential Calculus	..	3
Civil Engineering 51 and 52	Elementary Surveying	2	2
Mechanic Arts 2	Forging	1	..
Military 3	Basic Course, second year	1	..
Mechanical Engineering 19	Mechanical Engineering Literature	..	½
Physical Education 3	Advanced Exercises	½	..
Elective		..	1
			18

Sophomore Year—Second Semester

Physics 4	General Physics for Engineers	..	5
Physics 6	Physical Measurements	2	..
Mathematics 26	Integral Calculus	..	3
Metallurgy 4	Engineering Metallurgy	..	2
Military 4	Basic Course, second year	1	..
Physical Education	Advanced exercises	½	..
*History or Language		..	3
Mechanical Engineering 20	Mechanical Engineering Literature	..	½
Elective		..	1
			18

Junior Year—First Semester

Mathematics 55	Analytic Mechanics	..	3
Mechanical Engineering 51	Kinematics	1	2
Mechanical Engineering 54	Engines and Boilers	..	3
Mechanical Engineering 64	Power Laboratory	2	1
Economics 65	Introduction to Economics and Business	..	3
*History or Language		..	3
			18

Junior Year—Second Semester

Mathematics 56	Analytic Mechanics	..	2
Mechanical Engineering 65	Mechanical Laboratory	3	..
Mechanic Arts 3	Machine Shop	2	..
Civil Engineering 72	Testing Materials	1	..
Civil Engineering 74	Strength of Materials	..	3
Civil Engineering 90	Hydraulics	..	3
*Economics 66	Financial and Business Organization	..	3
Elective		..	1
			18

*See footnote, p. 166.

Senior Year—First Semester

		LAB.	LEC.
Mechanical Engineering 53	Machine Design	..	3
Mechanical Engineering 55	Thermodynamics	..	3
Electrical Engineering 51	Direct Current Machinery	..	3
Electrical Engineering 61	Electrical Laboratory	1	1
*Mechanical Engineering 66	Advanced Mechanical Lab.	3	..
*Mechanic Arts 5	Machine Shop	2	..
†Political Science 79	Constitutions of the U. S. and Nevada	..	3
Elective		..	1½
			18

Senior Year—Second Semester

Mechanical Engineering 56	Thermodynamics	..	3
Mechanical Engineering 58	Advanced Machine Design	..	3
Electrical Engineering 72	Alternating Current Machinery	..	3
Mechanic Arts 6	Pattern Shop	1	..
*Business Administration 48	Fundamental Principles of Law	..	3
*Mechanical Engineering 80	Thesis	3	..
†Political Science 80	Constitutions of United States and Nevada	..	3
Elective		..	1½
			18

SCHOOL OF ELECTRICAL ENGINEERING

Freshman Year—Both Semesters

Uniform course for all Engineering Schools. See page 166.

Sophomore Year—First Semester

		LAB.	LEC.
Physics 3	General Physics for Engineers	..	5
Physics 5	Physical Measurements	2	..
Mathematics 25	Differential Calculus	..	3
Civil Engineering 51–52	Elementary Surveying and Plotting	2	2
Mechanic Arts 3	Machine Shop	1	..
Military 3	Basic Course, second year	..	1
Physical Education 3	Advanced Exercises	½	..
Elective		..	1
			17½

Sophomore Year—Second Semester

Physics 4	General Physics for Engineers	..	5
Physics 6	Physical Measurements	4	..
Mathematics 26	Integral Calculus	..	3
Metallurgy 4	Engineering Metallurgy	..	2
Military 4	Basic Course, second year	..	1
Physical Education 4	Advanced Exercises	½	..
Elective		..	3
			18½

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	2	1
Mathematics 55	Analytic Mechanics	..	3
Mechanical Engineering 64	Mechanical Laboratory	1	2
Elective		..	1
			18

*See footnote, p. 166. †Students who take History both semesters are not required to take Political Science 79 and 80.

Junior Year—Second Semester

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

Senior Year—First Semester

Electrical Engineering 53	Advanced Alternating Currents	..	3
Electrical Engineering 63	Electrical Engineering Laboratory	3	1
Electrical Engineering 67	Communication Engineering	1	2
*Economics 65	Introduction to Economics and Business	..	3
Political Science 79	Constitutions of the United States and Nevada	..	½
Elective		..	9½
			18½

Senior Year—Second Semester

Electrical Engineering 54	Electrical Design	..	3
Electrical Engineering 64	Electrical Engineering Laboratory	3	1
*Electrical Engineering 68	Communication Engineering	1	2
*Physics 57	Electrical Measurements	2	..
*Economics 66	Industrial and Financial Organization	..	3
Political Science 80	Constitutions of United States and Nevada	..	½
Elective		..	9½
			18½

SCHOOL OF CIVIL ENGINEERING

Freshman Year—Both Semesters

Uniform course for all Engineering Schools. See page 166.

Sophomore Year—First Semester

		LAB.	LEC.
Mathematics 25	Differential Calculus	..	3
Physics 3	General Physics for Engineers	..	5
Civil Engineering 51–52	Elementary Surveying	2	3
*Geology 9	Historical Geology	..	3
*Geology 11	Determinative Mineralogy	2	..
Military 3	Basic Course	..	1
Physical Education 3	Advanced Exercises	½	..
			18½

Sophomore Year—Second Semester

Mathematics 26	Integral Calculus	..	3
Metallurgy 4	Engineering Metallurgy	..	2
Physics 4	General Physics for Engineers	..	5
Civil Engineering 20	Technical Report	1	..
Civil Engineering 53–54	Advanced Surveying	2	2
Civil Engineering 69	Graphic Statics	1	1
Military 4	Basic Course	..	1
Physical Education 4	Advanced Exercises	½	..
			18½

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 75	Electricity in Mining	..	3
Political Science 79	Constitutions of United States and Nevada	..	½
Elective		..	1
			17½

*See footnote, p. 166.

Junior Year—Second Semester

		LAB.	LEC.
Mathematics 56	Analytic Mechanics	..	2
[1]Civil Engineering 55A–55B	Foundations and Substructures	1	2
Civil Engineering 72	Testing of Materials	1	..
Civil Engineering 74	Mechanics of Materials	..	3
Civil Engineering 76	Structural Analysis	..	3
Civil Engineering 90	Hydraulics	..	3
Political Science 80	Constitutions of United States and Nevada	..	½
Elective		..	3½
			17½

CIVIL ENGINEERING 58. *Summer Surveying.* Required of all Civil Engineering students who cannot furnish a satisfactory substitution of practical experience on survey work, including considerable instrument work.

Senior Year—First Semester

		LAB.	LEC.
[1]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
*Economics 65	Introduction to Economics	..	3
Elective		..	3
			18

Senior Year—Second Semester

Civil Engineering 78	Structural Design	2	..
Civil Engineering 86	Reinforced Concrete	2	1
Civil Engineering 91	Sanitary Engineering	..	3
Civil Engineering 99 or Civil Engineering 100	Engineering Problems Thesis	2	..
*Economics 66	Industrial Organization	..	3
Elective		..	9
			18

*See footnote, p. 166.

[1]Civil Engineering 55A and B and 67 given alternate years. See pages 204, 205.

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

THE COLLEGE OF AGRICULTURE

FACULTY

WALTER E. CLARK, Ph.D., LL.D., President of the University.
MAXWELL ADAMS, Ph.D., Vice President, Professor of Chemistry.
ROBERT STEWART Ph.D., Dean of the College of Agriculture; Professor of Agronomy.
PETER FRANDSEN, A.M., LL.D., Professor of Biology.
HORACE PRENTISS BOARDMAN, C.E., Professor of Civil Engineering.
LEON W. HARTMAN, Ph.D., Professor of Physics.
FREDERICK WESTON WILSON, M.S., Professor of Animal Husbandry.
RUEBEN CYRIL THOMPSON, M.A., Professor of Philosophy.
Colonel JOHN PAUL RYAN, Professor Emeritus of Military Science and Tactics.
FREDERICK H. SIBLEY, M.E., Dean of the College of Engineering, Professor of Mechanical Engineering.
SARAH L. LEWIS, M.A., Professor of Home Economics.
GEORGE WALLACE SEARS, Ph.D., Professor of Chemistry.
PHILIP A. LEHENBAUER, Ph.D., Professor of Biology.
FREDERICK L. BIXBY, C.E., Professor of Civil Engineering.
JOHN EDWARD MARTIE, M.P.E., Professor of Physical Education and Athletics for Men.
ELSA SAMETH, M.S., Professor of Physical Education for Women.
FREDRICK WOOD, Ph.D., Professor of Mathematics.
WILLIAM L. REED, Col., U. S. A., Professor of Military Science and Tactics.
VINCENT P. GIANELLA, M.S., Professor of Geology.
KATHERINE LEWERS, Associate Professor of Freehand Drawing.
KATHARINE RIEGELHUTH, A.M., Associate Professor of English.
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 and Astronomy.
EDWARD G. SUTHERLAND, A.B., Associate Professor of Economics, Business and Sociology.
JESSIE P. POPE, M.A., Associate Professor of Home Economics.
PAUL A. HARWOOD, M.A., Associate Professor of English.
LYMAN R. VAWTER, D.V.M., Associate Research Professor of Veterinary Science.
S. ALLAN LOUGH, Ph.D., Associate Professor of Chemistry.
MERYL WILLIAM DEMING, Ph.D., Associate Professor of Chemistry.
MILAN J. WEBSTER, Ph.D., Associate Professor of Economics, Business and Sociology.
CHESTER M. SCRANTON, M.A., Associate Professor of Physical Education and Athletics for Men.
CHARLES LEROY BROWN, M.A., Assistant Professor of Biology.
RALPH A. IRWIN, M.S., Assistant Professor of Psychology.
HENRY WYATT ISBELL, Captain of Infantry, U. S. A., Assistant Professor of Military Science and Tactics; Commandant of Cadets.

MAE SIMAS, M.A., Assistant Professor of Physical Education for Women.
HAROLD CLARK AMENS, M.S., Assistant Professor of Engineering.
LORETTA ROSE MILLER, M.S., Assistant Professor of Biology.
ALDEN J. PLUMLEY, M.A., Assistant Professor of Economics, Business and Sociology.
ROBERT STUART GRIFFIN, B.S., Assistant Professor of English.
HORACE C. AYRES, Ph.D., Assistant Professor of Mathematics.
DOUGLAS DASHIELL, M.A., Assistant Professor of Physical Education and Athletics for Men.
JAMES W. COLEMAN, M.A., Assistant Professor of Physical Education and Athletics for Men.
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JACK L. RYAN, Instructor in Shop Practice.
EMILY ROSS, M.A., Instructor in Mathematics.
CLARENCE J. THORNTON, B.S., Instructor in Poultry Husbandry.
GEORGE ERNEST BROOKS, B.S., Instructor in Dairying.
WILLIAM C. MILLER, M.A., Instructor in English.
ROBERT A. LONG, A.B., Fellow in English.

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. 41.

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.

DAIRY—The laboratory in the Agricultural Building, equipped with up-to-date machinery and apparatus, furnishes opportunity for instruction in methods of handling milk and dairy products, as milk testing, butter making, and the marketing of milk.

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.

ADMISSION REQUIREMENTS

For admission requirements, entrance subjects, and the number of credits belonging to each, see pages 119–128.

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 128 semester units.

Students over 26 years of age are excused from Physical Education, Military and Hygiene.

COLLEGE OF AGRICULTURE

Courses of Study

General Courses in Agriculture

	First Semester	Second Semester
FRESHMAN YEAR		
Military 1–2	1	1
Hygiene	..	1
Physical Education 1–2	½	½
Chemistry 1–2	4	4
English 1–2	3	3
Animal Husbandry 1	3	..
Dairying 1	..	3
Agricultural Engineering 10	..	1
Poultry 2–8	2	..
Botany 3	4	..
Zoology 3	..	4
	17½	17½
SOPHOMORE YEAR		
Military 3–4	1	1
Physical Education 3–4	½	½
Agricultural Economics 1–2	3	3
Geology 8	3	..
Agronomy 4–53	3	3
Animal Husbandry 4–30	4	3
Dairy Husbandry 53	3	..
Botany 22	..	4
Elective	..	3
	17½	17½
JUNIOR YEAR		
Agricultural Electives	8	8
Nonagricultural Electives	6	6
Open Electives	2	2
	16	16
SENIOR YEAR		
Political Science 79–80	½	½
Agricultural Electives	7	7
Nonagricultural Electives	4	4
Open Electives	4½	4½
	16	16

PREFORESTRY AND RANGE MANAGEMENT

Courses of Study

The following course of study is designed for students intending to enter the field of forestry or of range management. It includes the fundamental subjects required in forestry schools and makes it possible, upon completion of the above course, to obtain the degree in forestry in a professional school of forestry in, approximately, from one and one-half to two years.

Courses in Preforestry

	1st Sem.	2d Sem.
FRESHMAN YEAR		
Military 1–2	1	1
Physical Education 1–2	½	½
Chemistry 1–2 — General Inorganic Chemistry	4	4
Botany 3 — General Botany	4	..
Botany 22 — Taxonomy	..	4
Animal Husbandry 1 — Breeds of Livestock	3	..
English 1–2 — Composition and Rhetoric	3	3
Hygiene 2 — General Hygiene	..	1
Agr. Engineering 71 — Farm Mechanics	1	..
Nonagricultural Electives	..	3
	16½	16½
SOPHOMORE YEAR		
Military 3–4	1	1
Physical Education 3–4	½	½
Botany 53 — Dendrology	2	..
Botany 27 — Elements of Forestry	1	..
Zoology 3 — General Zoology	..	4
Agr. Economics 1–2 — Principles of Economics	3	3
Mathematics	..	4
Agronomy 53 — Forage Crops	..	3
Nonagricultural Electives	8	2
	15½	17½
JUNIOR YEAR		
Physics 1a, 1b, 2a, 2b — General Physics	4	4
Agr. Engineering 51–52 — Surveying	4	..
Agronomy 6 — Soil Management	4	..
Zoology 59 — General Entomology	3	..
Botany 64 — Plant Diseases	..	3
Botany 58 — Range Botany	..	2
Animal Husbandry 58 — Range Management	..	2
Zoology 60 — Vertebrate Ecology	..	3
Nonagricultural Electives	..	3
	15	17
SENIOR YEAR		
Botany 55 — Plant Physiology	3	..
Botany 66 — Plant Ecology	..	3
Animal Husbandry 4 — Livestock Judging	3	..
Animal Husbandry 30 — Livestock Feeding	..	3
Agricultural Economics 56 — Land Economics	..	2
Economics 43–44 — Accounting	3	3
Geology 8 — General Geology	3	..
Political Science 79–80 — The Constitution	½	½
Nonagricultural Electives	3	6
	15½	17½

Recommended Electives

Botany 25 — Economic Botany	2	..	
Botany 51 — Genetics	3	..	
Chemistry 51–52 — Organic Chemistry	4	4	
English 41–42 — Appreciation of Literature	2	2	
German	6	6	
History 1 — History of the Americas	3	..	
Philosophy 1 — Introduction to Philosophy	2	or 2	
Philosophy 8 — Inductive Logic	..	3	
Political Science 1–2	2	2	
Psychology 5 — General Psychology	3	or 3	
Sociology 1	3	..	

SCHOOL OF HOME ECONOMICS

REQUIREMENTS FOR A BACCALAUREATE DEGREE IN HOME ECONOMICS

The degree of Bachelor of Science in Home Economics is conferred upon students who have satisfactorily completed the full course of study aggregating 128 semester units (including 3 units in Physical Education and 1 unit in Hygiene in the Freshman and Sophomore years) in the School of Home Economics as given on the following pages.

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. Home problems are required after completing beginning courses in Home Economics to give students this experience.

EQUIPMENT

School of Home Economics: For detailed description, see page 61.

SCHOOL OF HOME ECONOMICS

COURSES OF STUDY

Freshman Year—First Semester

		LAB.	LEC.
English 1	Composition and Rhetoric	..	3
Chemistry 1	Elementary Inorganic	2	2
Physical Education 1	Freshman Practice	1	..
Home Economics 3	Introductory Course	..	2
Horticulture 1	Elements of Horticulture	..	3
Home Economics 31	Foods and Cookery	2	1
			16

Freshman Year—Second Semester

English 2	Composition and Rhetoric	..	3
Chemistry 2	Elementary Inorganic	2	2
Physical Education 2	Freshman Practice	1	..
Home Economics 32	Foods and Cookery	2	1
Hygiene 2	General Hygiene	..	1
Home Economics 16	Textiles	1	1
Art 5	Principles of Art	2	..
			16

Sophomore Year—First Semester

		LAB.	LEC.
English 11 or 41	Public Speaking or Literature	..	2
Physics 19	Household Physics	1	2
Physical Education 3	Sophomore Practice	½	..
Home Economics 15	Clothing	2	1
Home Economics 45	Related Art	2	..
Chemistry 25		1	2
Psychology 5	General Psychology	..	3
			16½

Sophomore Year—Second Semester

English 12 or 42	Public Speaking or Literature	..	2
Physics 20	Household Physics	1	2
Physical Education 4	Sophomore Practice	½	..
Home Economics 18	Clothing	2	1
Philosophy 22	Applied Ethics	..	3
Chemistry 26		..	3
Elective		1	..
			15½

Junior Year—First Semester

Zoology 7	Physiology	1	2
Economics 1	Principles of Economics	..	3
Home Economics 55	Foods and Cookery	3	1
Home Economics 42	Food Economics	1	1
Elective		4	..
			16

Junior Year—Second Semester

Zoology 8	Physiology	1	2
Economics 2	Principles of Economics	..	3
Home Economics 66	Advanced Clothing	2	1
Home Economics 87	House Decoration	2	1
Elective		4	..
			16

Senior Year—First Semester

Home Economics 81	Dietetics	..	2
Home Economics 83	Dietetics	3	..
Home Economics 54	Home Nursing	..	2
Elective		9	..
			16

Senior Year—Second Semester

Home Economics 86	Household Administration	..	2
Home Economics 88	Care of the House	1	1
Home Economics 76	Child Care	..	2
Elective		10	..
			16

All students in the University who do not elect History 1 and 2 are required to take Political Science 79–80 for graduation.

DIETITIANS COURSE OF STUDY

Freshman and Sophomore years the same as the regular Home Economics Course.

Junior Year—First Semester

		LAB.	LEC.
Zoology 7	Physiology	1	2
Economics 1	Principles of Economics	..	3
Home Economics 55	Foods and Cookery	3	1
Home Economics 42	Food Economics	1	1
Home Economics 54	Home Nursing	..	2
Elective		2	..
			16

Junior Year—Second Semester

		LAB.	LEC.
Zoology 8	Physiology	1	2
Economics 2	Principles of Economics	..	3
Home Economics 94	Experimental Cookery	2	..
Elective		7	..
			16

Senior Year—First Semester

Home Economics 81	Dietetics	..	2
Home Economics 83	Dietetics	3	..
Sociology 1	Principles of Sociology	..	3
Bacteriology 51	General Bacteriology	2	2
Education 88	Problems in Homemaking Education	..	2
Elective		2	..
			16

Senior Year—Second Semester

Home Economics 86	Household Administration	..	2
Home Economics 88	Care of the House	1	1
Home Economics 76	Child Care	..	2
Home Economics 92	Diet in Disease	1	1
Home Economics 98	Institutional Management	..	2
Home Economics 96	Quantity Cookery	2	..
Elective		4	..
			16

All Home Economics courses are open to Arts and Science students.

Minor in Home Economics

For a Minor in Home Economics Education, Electives should be chosen as follows:

Sophomore Year—Second Semester

		LEC.
Psychology 6	Elementary Educational Psychology	3

Junior Year—First Semester

Education 63	School Management and Law	1

Junior Year—Second Semester

Education 60	Problems of Secondary Education	3

Senior Year—First Semester

Education 71	Principles of Teaching	3
Education 75	Supervised Teaching	2
Education 88	Problems in Homemaking Education	2

Senior Year—Second Semester

Education 76	Supervised Teaching	2
Education 82	Noninstructional Responsibilities of the High School Teacher	2
Total		18

RECOMMENDED ELECTIVES

Group I—Related Subjects:

Bacteriology 51, History 1 and 2, English 21–22, 25–26, 77, Latin 41 (Greek Art), and Latin 42 (Roman to Modern Art), Philosophy 7, 8, 61, 62, Business Administration 41–65, Sociology 20, 71–72, Art 3, 4, 51, 52, Education 34–35–56, and Physical Education 23 and 51.

Group II—Home Economics Electives:

Home Economics 52, 67, 68, 85, 92, 94, 96, and 98.

COURSES OF INSTRUCTION

COURSES OF INSTRUCTION

On the following pages, listed under their respective headings, are given all the courses in which instruction is offered by the University. These 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.

COURSE OFFERINGS

DEPARTMENT OF AGRICULTURAL ECONOMICS

PROFESSOR STEWART, HEAD OF DEPARTMENT
PROFESSOR WILSON
PROFESSOR HEADLEY

1. 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:* Sophomore year. *First semester. Three credits.* Education Building. The Staff of Economics Department.

2. PRINCIPLES OF ECONOMICS. A continuation of 1. *Second semester. Three credits.* Education Building. The Staff of Economics Department.

52. AGRICULTURAL ECONOMICS. Production trends in the United States. Relation of international trade to agriculture. Relation of prices to agricultural output. Business and production cycles. Advantages and limitations of agricultural planning. Taxation in relation to agriculture. Farm ownership and tenancy. Systems of farming. Farm organization. Valuation of farms. Factors which make for efficiency in farming. Law of diminishing returns. Financial analysis of the farm business. Planning farm enterprises. *Three recitations. Junior year. Second semester. Three credits.* Agricultural Building. Headley.

53. COOPERATION AND FARMER'S MOVEMENTS. A review of the fundamentals of cooperation followed by a discussion of agrarian organizations such as: The Grange; Farmers Union; American Society of Equity; The Gleaners; Farm Bureau; Nonpartisan Leagues; and Cooperative Organization for Production, Distribution, Consumption and Credit Purposes. *Junior year. First semester. Two credits.* Stewart.

55. RURAL FINANCE. Fundamental principles of credit and finance as applied to agriculture. Credit requirements of agriculture, existing agencies for supplying credit and

ways and means of utilizing them; strength and weakness of present credit system and proposals for reform. *Junior year. First semester. Two credits.* Wilson.

56. Land Economics. Deals with the underlying principles pertaining to urban, agricultural, mineral, forest, range and other types of land in their social setting. Attention is focused on land resources, their classification, valuation and use and related problems of finance, including taxation. *Senior year. Second semester. Two credits.* Stewart.

58. Marketing of Agricultural Products. A certain study of the marketing of staples, semistaples and perishable farm products, including the geographical location of producing areas, marketing routes from producer to the consumer, types of middlemen, direct marketing, marketing costs, standardization, factors influencing prices, and a general description of our whole marketing system as it exists today. *Senior year. Second semester. Two credits.* Wilson.

AGRICULTURAL ENGINEERING

PROFESSOR SIBLEY
PROFESSOR BOARDMAN
PROFESSOR BIXBY
ASSISTANT PROFESSOR AMENS
MR. RYAN
MR. CARROLL

51. Farm Surveying. Elementary course. Lectures, recitations and computations, covering the common types of surveying, special emphasis on topographic and farm surveying. *Prerequisite:* Mathematics. *First semester. Four credits.* Electrical Building. Boardman.

58. Irrigation and Drainage. A study of the principles of irrigation. Sources of water supply; measurements 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.* Bixby.

10. Farm Mechanics. A course embracing general forge work, including heating, bending, drawing, upsetting, etc., also making and tempering punches, drills and chisels, and annealing and case-hardening. One period will be given to bench and machine work. *First semester. Two credits.* Mechanical Building. Ryan and Carroll. Fee, $5.

72. Farm Equipment. Design and construction and cost estimates of farm buildings, including houses, barns, sheds, granaries and silos. Field trips will be taken whenever possible to observe buildings under construction. Farm implements such as road drags, levelers, irrigation boxes and forms for concrete work will be studied. Heating, ventilating and lighting of buildings. *Second semester. Laboratory, two periods. Two credits.* Electrical Building. Sibley.

73. Farm Motors and Tractors. The study of water, gasoline, and electric farm motors, gasoline and steam tractors. Demonstrations and practice will be given in the operation of the various types of motors. *First semester. Lecture, one hour; laboratory, two periods. Three credits.* Fee, $2. Amens.

AGRONOMY

College of Agriculture

PROFESSOR STEWART, HEAD OF DEPARTMENT

1. Elementary Agriculture. Introduction to general agriculture. The soil—its formation, texture, plant food requirements, moisture, tillage, and fertility; the plant—its relation to soil and climate, its propagation, growth, and cultivation, and the kinds of crops and their culture. *For Freshmen only. First semester. Lectures, three hours; laboratory, one period. Four credits.* Stewart. Fee, $3.

4. Field Crops. An advanced study of the principal cereal crops—corn, wheat, oats, barley, rye, rice, sorghum, etc. *First semester. Lectures, three hours. Three credits.* Stewart.

6. Soil Management. A general lecture and laboratory course in geology of soils, origin, formation, physical composition, soil moisture, moisture movements and conservation, physical processes, surface tension, osmosis, capillarity, aeration and temperature. Influence of washing, drainage, and irrigation. Laboratory—comparison of the physical properties of different soil types as: specific gravity, water retention, capillarity, organic matter, alkalies, etc. Effect of mulches; soil sampling; mechanical analysis. *Prerequisite: Sophomore standing. First semester. Lecture, three hours; laboratory, one period. 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. *Second semester. Lectures, three hours. Three credits.* Stewart.

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; system of farming; farming compared with other lines of business; marketing problems; advertising; farm records and farm accounts; the management of fields, crops, and manures. *Prerequisite: Senior standing. Second semester. Lectures, three hours. Three credits.* Given alternate years. Stewart.

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. *Prerequisite: Junior standing. Second semester. Lectures, three hours. Three credits.* Given alternate years. (Not given in 1936–1937.) Stewart.

62. Soil Fertility. Composition and value of fertilizers, barn-yard and green manures; maintenance and improvement of fertility; effect of various crops and different systems of farming on the fertility of the soil. Studies of crop rotation and fertility. Study of the productivity, best uses of Nevada soils and their improvement. *Prerequisite:* Agronomy 6. *Second semester. Lectures, two hours. Two credits.* Given alternate years. (Not given in 1936–1937.) Stewart.

64. Principles of Extension Work. This course is designed to acquaint students with the operation of the Agricultural Extension Service of the United States Department of Agriculture and agricultural colleges and relationships of different Bureaus of the United States Department of Agriculture to the Extension Service and agriculture of Nevada.

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. *Prerequisite: Junior standing. Second semester. Lectures, two periods. Two credits.* Given alternate years. Buckman.

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. *Second semester. Three credits.* Given alternate years. (Not given in 1936–1937.)

157. Advanced Farm Management. A course for graduate students consisting of assigned special problems in farm management. *Either semester. Three to five credits.* Stewart.

200. Thesis Course in Agronomy. *Either semester. Credit to be arranged.* Stewart.

ANIMAL HUSBANDRY

College of Agriculture

PROFESSOR WILSON, HEAD OF DEPARTMENT
ASSOCIATE PROFESSOR VAWTER
MR. BROOKS
MR. THORNTON

Animal Husbandry

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 stock farms in the vicinity will be used, also lantern slides of typical animals of the various types and breeds. *First semester. Three credits.* Wilson.

4. Livestock Judging. Practice in judging live stock to gain familiarity with the points of excellence in the various breeds of farm animals. *Prerequisite:* Animal Husbandry 1. *First semester. Lectures, two hours; laboratory, two periods. Four credits.* Wilson. Fee, $3.

30. Livestock Feeding. The principles underlying and problems connected with the feeding of farm animals. *Prerequisite:* Animal Husbandry 1 and 4, Chemistry 5, 6. *Second semester. Lectures, three hours. Three credits.* Wilson.

50. Animal Hygiene. A lecture course covering the principles of livestock sanitation and first aid. *Prerequisite:* Zoology 51 and Bacteriology 51. *Second semester. Three credits.* Vawter.

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. *Prerequisite:* Zoology 2. *Second semester. Lectures, three hours. Three credits.* 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.* Wilson.

55. Advanced Livestock Feeding. *Prerequisite:* Animal Husbandry 30. *First semester. Lectures, three hours. Three credits.* 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.* 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.* Given alternate years. Wilson.

58. Range Management. Lectures covering the following subjects in Animal Husbandry: Development and proper distribution of stock salting grounds; rotation and proper location of drift fences; estimation of carrying capacity; methods of mapping in range lands; range destroying rodents; grazing administration within the National forests; various systems of handling range lands within the United States and foreign countries; general range problems. *Prerequisite:* Animal Husbandry 1, 4, 30; Botany 1, 52. *Second semester. Two credits.* Course must be taken simultaneously with Botany 58. Given in alternate years. Wilson and Lehenbauer.

59. Professional Judging. *First semester. Laboratory, one period. One credit.* Given in alternate years. Wilson. Fee, $1.50.

Ed. 86. Teacher Training in Agriculture. *See Education.*

Dairy Husbandry

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. *Second semester. Lectures, two hours; laboratory, one period. Three credits.* Brooks. Fee, $3.

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.* Brooks. Fee, $3.

54. Butter-Making. Laboratory practice in the manufacture of creamery butter and ice cream. Instruction will cover sampling and testing of cream; pasteurizing and ripening of cream for butter-making, churning, with special attention to the factors that control the composition of

butter; preparing butter for the market; the preparation and use of home-made and commercial starters; creamery accounts; determining the amount of water in butter; testing for oleomargarine; manufacture of ice cream, sherbets, ices, lacto. *Prerequisite:* Dairying 1. *Second semester. Lecture, one hour; laboratory, two periods. Three credits.* Brooks. Fee, $3. (This course will not be given unless elected by five or more students.)

55. DAIRY SANITATION. This course is the application of bacteriology to the problems of the producer and consumer of milk. It deals with the fundamental principles upon which are based sanitary production and handling of milk, cream-ripening and curing of cheese, the market milk industry; the relations of milk to the public health and the important relations of butter- and cheese-making. *Prerequisite:* Dairying 1 and Zoology 2. *First semester. Lecture, one hour; laboratory, one period. Two credits.* Brooks. Fee, $2.

57. ADVANCED MILK PRODUCTION. Use of dairy herd books; special feeding for high records; interpretation of official tests. *Prerequisite:* Dairying 1. *First semester. Lectures, two hours. Two credits.* Wilson.

61–62. THESIS COURSE. Special problems in production or sanitation and city milk supply. Laboratory material is available through the dairies furnishing milk for the city of Reno. *Prerequisite:* Dairying 1 and 53 or 55. *Either semester. Two to six credits.* Wilson.

Poultry Husbandry

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. *Second semester. Two lectures, one laboratory. Three credits.* Thornton. Fee, $2.

8. TURKEY PRODUCTION AND MANAGEMENT. This course deals with the practical management of turkeys, primarily for meat production. No laboratory period is arranged for, but about two trips are planned each year, one at marketing time and one at hatching and breeding time. *First semester. Two credits.* Thornton. Fee, $2.

ART

ASSOCIATE PROFESSOR LEWERS, HEAD OF DEPARTMENT

Requirements for a minor in Art: Art 1–2 (2 credits), 3–4 (2 credits) and 14 additional credits in the department, at least 6 of which must be in courses numbered 50 or above.

Requirements for a major in Art: Art 1–2 (2 credits), 3–4 (2 credits), and 20 additional credits in the department, at least 12 of which must be in courses numbered 50 or above.

Requirements for a special art teacher's certificate are listed elsewhere.

1–2. ELEMENTARY ART. The fundamental principles of form, color, and light and shade. Application of principles in drawing and painting in all mediums, pencil, charcoal, oil color, water color, and pastel. Drawing and painting from nature in landscape and still life. Fundamental principles of design. Applied design in manual arts. *Both semesters. One credit required each semester.* More credits may be elected. Education Building. Lewers.

3–4. INTERMEDIATE ART. A continuation of the work of Art 1–2, with addition of clay modeling, drawing, and painting from life. *Both semesters. Credits to be arranged.* Education Building. Lewers.

5–6. ART APPLIED TO THE HOME. (School of Home Economics.) The fundamental principles of form, color and light and shade. Color and form studied from nature in landscape and still life. Color and line harmony as applied to dress, millinery, and house furnishing. Fundamental principles of design. Original designing and its application in all ways relating to the home. *Two credits required each semester.* Education Building. Lewers.

7–8. TEACHERS' COURSE. A continuation of the first year's course (Art 1–2) in all branches and its application to each grade in public school work. *Second semester. One credit.* Education Building. Lewers.

51–52. ADVANCED ART. The continuation of Art 3–4 in more advanced work. *Both semesters.* Education Building. Lewers.

53–54. ADVANCED ART. Continuation of Art 51–52 in more advanced work. *Both semesters. Credits to be arranged.* Education Building. Lewers.

For the history of Art, see Latin 41, 42, 43 and 44.

BIOLOGY

PROFESSOR FRANDSEN, HEAD OF DEPARTMENT
PROFESSOR LEHENBAUER
ASSOCIATE PROFESSOR MACK
ASSISTANT PROFESSOR BROWN
ASSISTANT PROFESSOR MILLER
MRS. YOUNG

The Department of Biology includes the following divisions: Bacteriology, Botany, Horticulture, Hygiene, Nature Study, and Zoology.

Requirements for a minor in Biology: Zoology 2 (4 credits), Botany 1 (3 credits); Botany 2 (3 credits) or Botany 22 (4 credits); and 6 additional credits from the following: Zoology 59 (3 credits), Zoology 60 (3 credits), Zoology 55 (2 credits), Botany 51 (3 credits).

Requirements for a major in Biology: Botany 1 (3 credits), Botany 2 (3 credits), Botany 22 (4 credits), Zoology 2 (4 credits), Zoology 59 (3 credits), Zoology 60 (3 credits) and 6 additional credits from courses in the department numbered 50 or above.

Students who intend to teach in secondary school are advised to take the combination minor or major in Biology rather than the major or minor in either subject alone.

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, sewage, and the production of disease will be considered. *Prerequisite:* Zoology 2, Botany 2, or Hygiene 7–8. *First semester. Lectures, two hours; laboratory, two periods. Four credits.* 212 Agricultural Building. Frandsen. Fee, $5.

52–53. Special Bacteriology. *Two to four credits.* Given in alternate years for four or more students. 212 Agricultural Building. Frandsen and Mrs. Young. Fee, $5.

Botany

Requirements for a minor in Botany: Botany 1 (3 credits), Botany 2 (3 credits), Botany 22 (4 credits), Zoology 1 (3 credits), and 4 additional credits in the division of botany in courses numbered 50 or above.

Requirements for a major in Botany: Botany 1 (3 credits), Botany 2 (3 credits), Botany 22 (4 credits), Zoology 1 (3 credits), and 12 additional credits in the division of botany in courses numbered 50 or above.

A year of Chemistry is recommended for majors or minors in the division of botany.

Students planning to enter the field of Forestry and Range Management should consult course of study listed in College of Agriculture.

1. General Botany. The morphology, histology, and physiology of the flowering plants. *Given each semester. Two lectures; one laboratory period. Three credits.* 109 and 103 Agricultural Building. Miller and Lehenbauer. Fee, $3.

2. General Botany. The evolutionary study of plants as illustrated by representative types from the algae, fungi, mosses, ferns and seed plants. *Second semester. Two lectures; one laboratory period. Three credits.* 103 Agricultural Building. Miller. Fee, $3.

3. General Botany. For Agricultural, Premedical and Preforestry students. The morphology, histology, physiology, and development of seed plants. *First semester. Two lectures; two laboratory periods. Four credits.* 103 Agricultural Building. Lehenbauer. Fee, $4.

22. Taxonomy. A systematic and comparative study of the principal families of flowering plants represented in the local flora and the identification of plants by means of manuals. *Prerequisites:* Botany 1 or 3. *Second semester. Two lectures; two laboratory periods. Four credits.* 103 Agricultural Building. Miller. Fee, $1.

25. Economic Botany. Plants as the source of commercial materials. The geographical distribution of economic plants and their useful and harmful products. *Prerequisite:* Botany 1 or 2 or 3. *Second semester. Two lectures and assigned readings. Two credits.* 109 Agricultural Building. Lehenbauer.

51. Genetics. The study of the laws of inheritance and variations. Hybridization, selection and methods of crop improvement. *Prerequisite:* Botany 1 or 2 or 3, or Zoology 2. *First semester. Three lectures and assigned problems. Three credits.* 102 Agricultural Building. Miller.

53. Dendrology. The study of trees, their identification, classification, distribution, silvicultural requirements and uses. The identification of wood specimens. *Prerequisite:* Botany 22. *First semester. Two laboratory periods and reports on assigned readings. Two credits.* 102 Agricultural Building. Lehenbauer. Fee, $1.

54. Elements of Forestry. A general course dealing

with the history and principles of forestry, and the economic and social importance of forests. *First semester. One lecture and assigned readings. One credit.* 109 Agricultural Building. Lehenbauer.

55. PLANT PHYSIOLOGY. A study of the activities of plants: absorption, photosynthesis, respiration, digestion, growth, plant responses, etc. *Prerequisite:* Botany 1 or 3. *First semester. Two lectures; one laboratory period. Three credits.* 103 Agricultural Building. Lehenbauer. Fee, $4.

56. AGRICULTURAL BOTANY. The study of weeds, their identification, growth habits, and their control. Weed seeds and their identification. Seed testing. Pure seed laws and their application. *Prerequisite:* Botany 1 or 3, and Botany 22. *Second semester. Two lectures; assigned readings and reports. Two credits.* 103 Agricultural Building. Lehenbauer. This course alternates with Botany 58. (Not given in 1936–1937.) Fee, $1.

58. PLANTS OF THE RANGE. The study of browse plants, grasses, poisonous plants, etc., on the range; their identification, distribution, reproduction and life habits. This course must be taken simultaneously by students in agriculture with Animal Husbandry 58. *Prerequisite:* Botany 22. *Second semester. Two lectures and assigned readings. Two credits.* 102 Agricultural Building. Lehenbauer. This course alternates with Botany 56. Fee, $1.

64. PLANT PATHOLOGY. The study of the important diseases of economic plants, their causes, identification and control. *Prerequisite:* Botany 1 or 3. *Second semester. Two lectures; one laboratory period. Three credits.* 103 Agricultural Building. Lehenbauer. Fee, $4.

66. PLANT ECOLOGY. The study of the principles governing the interrelations of plants and their environmental factors: light, heat, soil, living agencies, etc. A study of field methods in ecology. *Prerequisite:* Botany 22, and preferably Botany 55. *Second semester. Two lectures; one laboratory period; assigned readings and reports. Three credits.* 102 Agricultural Building. Lehenbauer.

71. MORPHOGENESIS. Experimental morphology. A study of the structure and form of the vascular plants and the factors controlling this development. *Prerequisite:* One year of Botany. *First semester. Two lectures; one laboratory. Three credits.* Agricultural Building. Miller.

91–92. BOTANICAL PROBLEMS. Special problems in some field of botany. Assigned readings and reports. *Prerequisite:* The equivalent of two years of Botany. *Either semester. One to three credits each semester.* 103 Agricultural Building. Lehenbauer and Miller.

201–202. Thesis course for graduates.

Horticulture

1. HORTICULTURE. Plant propagation and ornamental horticulture. The principles of propagation. The culture and care of plants. The principles of ornamental gardening. *First semester. Three lectures and demonstrations; assigned readings. Three credits.* 103 Agricultural Building. Lehenbauer.

Hygiene

2. GENERAL HYGIENE. Two lectures per week. Required of all Freshmen. *Second semester. One credit. Men,* Frandsen; *women,* Mack.

4. TEACHERS' HYGIENE. This course consists of lectures, assigned readings, and demonstrations covering the elementary principles of human anatomy and physiology, and paying particular attention to the hygienic applications. The problems of sex hygiene, including the control, the suppression and the prevention of venereal diseases, are discussed both in their individual and in their public bearings. Special attention is placed upon that phase of the subject pertaining to school life, as ventilation, cleanliness, etc. *First semester. Two lectures. Two credits.* 210 Agricultural Building. Mack.

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 (4 credits), Botany 1 or 2 (3 credits), Zoology 7–8, or Zoology 9 (5 or 6 credits), 6 credits in the Zoology division in courses numbered 50 or above.

Requirements for a major in Zoology: Zoology 2 (4 credits), Botany 1 or 2 (3 credits), Zoology 7–8, or Zoology 9 (5 or 6 credits), with 12 additional credits in the Zoology division in courses numbered 50 or above.

Additional courses advised: Physics 1–2 (or admission credit), general chemistry, qualitative and quantitative analysis and organic chemistry; German 1–2 and 3–4.

1. 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. This course is intended mainly for those who wish to satisfy the Freshman-Sophomore laboratory science requirements without any idea of majoring in the subject. *Either semester. Lectures, two hours; laboratory, one period. Three credits.* 110 and 211 Agricultural Building. Frandsen and Brown. Fee, $4.

2. General and Comparative Invertebrate Zoology. Content of course similar to Zoology 1, but requiring more individual laboratory work and with more stress placed upon the comparative invertebrate aspects. This course should be taken by all those who plan to major in either Zoology or Biology. *Second semester. Two lectures and two laboratory periods. Four credits.* Frandsen and Brown. Fee, $4.

7–8. Physiology. The general principles of animal physiology, with special reference to the human being. The laboratory work consists of the dissection of some vertebrate, microscopic study of tissues and organs, physiological experiments and demonstrations, and the study of anatomical and physiological models. Some work on microorganisms is included. *Both semesters. Lectures, two hours; laboratory, one period. Three credits each semester.* 110 and 210 Agricultural Building. Brown. Fee, $2.50 each semester.

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 7–8. *First semester. Lectures, three hours; laboratory, two periods. Four credits.* 5 Agriculture Building. Frandsen. Fee, $5.

55. 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. No prerequisite for Juniors or Seniors. Open to Sophomores who have had one year of college biology. *First semester. Two credits.* 110 Agricultural Building. Frandsen.

59. General Entomology. A course adapted to those interested in insect life histories, their classification, economics and control. Field trips will be taken to collect and to discover their places of hiding, hibernation and transformation. *Prerequisite:* Zoology 2, or a working knowledge of the subject. *First semester. Lecture, two hours; laboratory, one period.* Agricultural Building. Brown. Fee, $3.

60. Vertebrate Ecology. This course is especially designed for teachers, naturalists, field workers and those preparing for Biological Survey work. It includes a study of the classification, economic and ecological interests of mammals, birds and reptiles, primarily of Nevada. Occasional field trips will be taken. *Prerequisite:* Zoology 2 or 59. *Second semester. Lectures, two hours; laboratory, one period. Three credits.* Agricultural Building. Brown. Fee, $3.

64. Embryology. Lectures on comparative embryology of vertebrates. The laboratory work consists of the study of preparations of the frog, chick, pig, and human embryos at various stages of development. Some training in the preparation of embryological material will be given. *Prerequisite:* Zoology 2 and 9, or 7–8. *Second semester. Lectures, three hours; laboratory, two periods. Four credits.* 212 Agricultural Building. Frandsen. Fee, $2.

68. Histology. The microscope and accessory apparatus, histological methods, comparative cytology. *Prerequisite:* Zoology 2. A knowledge of Physics and Organic Chemistry is desirable. *Second semester. Three lectures. Two credits.* 212 Agricultural Building. Frandsen.

70. Histology. Laboratory course. Methods of micromanipulation. Preparation of slides and recognition of tissues. *Prerequisite:* Zoology 2 and 9 or 7 and 8. *Second semester. Two laboratory periods.* Brown. Fee, $4.

91–94. 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. *Both semesters. Credits to be arranged.* 212 Agricultural Building. Frandsen. Fee determined by type of work.

201. Thesis course for graduates.

CHEMISTRY

PROFESSOR SEARS, HEAD OF DEPARTMENT
PROFESSOR ADAMS
ASSOCIATE PROFESSOR LOUGH
ASSOCIATE PROFESSOR DEMING
MR. KARSTEN

Requirements for a minor in Chemistry: Chemistry 5–6 (6 credits), 9 (4 credits), 10 (4 credits), and 4 additional credits in the Department in courses numbered 50 or above.

Requirements for a major in Chemistry: Chemistry 5–6 (6 credits), 9 (4 credits), 10 (4 credits), 51–52 (8 credits) and 95–96 (1 credit), and 3 additional credits in the Department in courses numbered 50 or above.

The following courses are recommended but not required: Physics 1a-1b.

Requirements for the degree, Bachelor of Science in Chemistry: See outline for Course of Study, page 148.

1–2. General Inorganic Chemistry. Lectures, recitations, and laboratory work covering the elementary principles of chemistry. This course will cover all of the more common elements and their most important compounds, including their relation to each other and to the different industries. Its purpose is to give the student sufficient acquaintance with the field of chemistry so that he will be able to understand and appreciate its numerous applications to industry and to everyday life and at the same time prepare him for Chemistry 9. Designed for any student who desires a first course in college chemistry. *Both semesters. One lecture; two recitations; two laboratory periods. Four credits each semester.* Mackay Science Hall. Sears and Staff. Fee, $8.

5–6. General Inorganic Chemistry. The scope of this course is the same as that of Chemistry 1–2, but the treatment of the subject matter will be somewhat less exhaustive than in Chemistry 1–2. This course is designed primarily for students enrolled in the College of Engineering, but open to other students desiring a somewhat briefer course than Chemistry 1–2. *Both semesters. One lecture, two recitations and one laboratory period. Three credits each semester.* Mackay Science Hall. Sears and Staff. Fee, $4.

7–8. General Inorganic Chemistry. A course involving the same general field as that covered in Chemistry 1–2, but greater emphasis is given to problems and equations as a preparation for more advanced work in chemistry. Designed primarily for students registering in the course leading to the degree of Bachelor of Science in Chemistry, but open to others who desire a more complete knowledge of fundamentals. *Both semesters. One lecture, two recitations and two laboratory periods. Four credits each semester.* Mackay Science Hall. Sears and Staff. Fee, $8.

9. Principles of Inorganic and Analytical Chemistry. A lecture and laboratory course designed to give the student a knowledge of the fundamental principles underlying chemical change and to give him training in the methods of qualitative and a few of the more fundamental and simpler processes of gravimetric analysis. Numerous equations and problems involving chemical manufacture and the mass law will be assigned. *One lecture and three laboratory periods each week. Prerequisite:* Chemistry 2 or 6. *Either semester. Four credits.* Mackay Science Hall. Sears. Fee, $12.

10. Quantitative Analysis. A lecture and laboratory course covering the more important methods used in both gravimetric and volumetric analysis. Designed to train the student in the technique of quantitative analysis and to give him a knowledge of the principles and problems involved. *One lecture and three laboratory periods each week. Prerequisite:* Chemistry 9, Mathematics 11. *Second semester. Four credits.* Mackay Science Hall. Sears. Fee, $12.

25. Elementary Organic Chemistry. (College of Agriculture.) A lecture and laboratory course in which are presented briefly the principal features of the aliphatic compounds as well as some discussion of the aromatic compounds. Open only to students of Home Economics. *Prerequisite:* Chemistry 1 and 2. *First semester. Two*

lectures; one laboratory period. Three credits. Mackay Science Hall. Lough. Fee, $4.

26. ELEMENTARY PHYSIOLOGICAL CHEMISTRY. (College of Agriculture.) A lecture course designed to present briefly the fundamental aspects of the chemistry of foods, of digestion, of metabolism, and of excretion. Open only to students of Home Economics. *Prerequisite:* Chemistry 25. *Second semester. Three lectures. Three credits.* Mackay Science Hall. Lough.

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.* Mackay Science Hall. Adams. Fee, $8.

53. ADVANCED ORGANIC CHEMISTRY. (Graduate credit given with consent of instructor.) A lecture and laboratory course on special chapters in organic Chemistry. *Prerequisite:* Chemistry 51–52. *First semester. Two lectures and two laboratory periods. Four credits.* Mackay Science Hall. Adams. Fee, $8.

64. SPECIAL PROBLEMS. A laboratory course designed to give the student training in various special fields. Water and gas analysis, qualitative organic, potentiometric and conductometric titrations, analysis of foods, minerals, etc., may be taken up. To be arranged by consultation with the head of the department. *Any semester. Two credits.* Mackay Science Hall. Sears, Adams, Lough, Deming. Fee, $8.

67. PHYSIOLOGICAL CHEMISTRY. (Graduate credit given with consent of instructor.) For students of chemistry, medicine, biology, bacteriology and nutrition. Lectures and recitations on the chemistry of carbohydrates, fats, proteins, body tissues, blood, secretions, putrefaction and the physiological processes such as digestion, absorption and assimilation of food, general enzyme action, metabolism and the fundamental principles of nutrition. The laboratory work consists of qualitative and quantitative experiments on the lecture material. *Prerequisite:* Chemistry 10 and 52. *First semester. Two lectures, two laboratory periods. Four credits.* Mackay Science Hall. Lough. Fee, $8.

71. ADVANCED ANALYTICAL CHEMISTRY. A lecture and laboratory course designed particularly for chemistry and mining students but open to all students desiring a more complete knowledge of analytical methods. *Prerequisite:* Chemistry 10. *First semester. One recitation and two laboratory periods. Three credits.* Mackay Science Hall. Deming. Fee, $8.

72. ADVANCED INORGANIC PREPARATIONS. (Graduate credit given with consent of instructor.) A laboratory and discussion course. The student will be expected to prepare a number of inorganic substances involving some of the more difficult reactions and technique. Special emphasis will be given to method, technique, and equations involved. *Prerequisite:* Chemistry 51. *Second semester. One recitation and two laboratory periods. Three credits.* Mackay Science Hall. Adams. Fee, $8.

74. CHEMISTRY OF THE RARER METALS. (Graduate credit given with consent of instructor.) A lecture and laboratory course designed to give a more intimate knowledge of the elements. Emphasis will be given to the preparation and properties of the metals and their more important compounds. *Prerequisite:* Chemistry 10. *Second semester. One lecture and two laboratory periods. Three credits.* Mackay Science Hall. Sears. Fee, $8.

75. THE PERIODIC LAW. (Graduate credit given with consent of instructor.) A lecture and seminar course designed to give the student a rather intimate knowledge of the less common elements and their relation to the more common elements. A critical study is made of the more important periodic tables in the light of recent developments in atomic structure and the known properties of the elements. Practical use is made of the periodic law to correlate the facts of Chemistry. *Prerequisite:* Three years of college Chemistry. *First semester. Two credits.* Mackay Science Hall. Sears.

80. INTRODUCTION TO PHYSICAL CHEMISTRY. A lecture and laboratory course designed to illustrate the application of physical methods to chemical problems. Although designed primarily for students of chemistry, it is particularly suitable for engineers, premedics and others who wish a short introductory course. The subject is developed on the basis of the kinetic molecular theory of matter, reserving the thermodynamical treatment for Chemistry 81–82. The following topics are taken up: Gaseous, liquid and crystalline

state of matter; laws of ideal solutions; physical and chemical equilibria; solutions of electrolytes. *Prerequisite:* Chemistry 10 and Mathematics 16. *Second semester. Two lectures and one laboratory period. Three credits.* Mackay Science Hall. Deming. Fee, $4.

81–82. PHYSICAL CHEMISTRY. A lecture and laboratory course based on the application of the laws of physics to chemical problems. Many of the topics introduced in Chemistry 80 are here more rigorously developed in the basis of the laws of thermodynamics and the kinetic molecular theory. The following subjects are introduced: Surface chemistry and solutions; structure of crystals; the metallic state; colloidal state of matter, absorption; rate and mechanism of chemical reactions, catalysis; electrochemistry, electrolysis and polarization. *Prerequisite:* Chemistry 80, Physics 2A, Mathematics 26. *Both semesters. Two lectures and one laboratory period. Three credits each semester.* Mackay Science Hall. Deming. Fee, $4.

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. Mackay Science Hall. Staff.

99–100. THESIS COURSE FOR UNDERGRADUATES. A laboratory and library course based on a special topic chosen from inorganic, analytical, organic or physical chemistry. Careful quantitative work is stressed. To be arranged by consultation with the instructors. *Prerequisite:* Chemistry 10, 52 and 80, German, and recommendation by the head of the department. *Both semesters. Two credits.* Mackay Science Hall. Sears, Adams, Lough and Deming. Fee, $8.

102. ADVANCED PHYSICAL CHEMISTRY. Either A or B is given, depending upon the needs of the class.

A. A lecture course dealing with the thermodynamic functions, energy, free energy and entropy, and their partial derivatives. The method employed is essentially that of G. N. Lewis.

B. A lecture course dealing with the general subject, structure of matter. Topics introduced include: Electrical theory of matter, radio-activity; quantum theory, photochemistry; structure of the atom and molecule; nature of chemical valence. *Prerequisite:* Chemistry 82. *First semester. Two lectures. Two credits.* Mackay Science Hall. Deming.

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.* Mackay Science Hall. Adams, Sears, Lough and Deming. Fee, $4 per credit hour, according to work.

CIVIL ENGINEERING

College of Engineering

PROFESSOR BOARDMAN, HEAD OF DEPARTMENT
PROFESSOR BIXBY
MR. AMENS

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. Outlines and bibliography, together with a reasonable showing of progress, must be presented for approval within six weeks after registration. *Prerequisite:* English 1–2. *First semester. One credit.* Electrical Building. Bixby.

51–53. Surveying. Lectures, recitations and computations, covering the common types of surveying, elementary in the first semester and more advanced in the second semester with special emphasis on Polaris and sun observations for meridian, and topographic and mine surveying. *Prerequisite:* Mathematics 13. *Both semesters. Two credits each semester.* Electrical Building. Boardman.

52–54. Surveying Laboratory. Field practice in the use and adjustment of surveying instruments and drafting room work in the reduction and plotting of the field notes. This work is made practical by the actual survey and mapping of a portion of the University grounds. This course accompanies Civil Engineering 51–53. *Both semesters. Two credits each semester.* Campus and Electrical Building. Bixby. Fee, $3 each semester.

55A–55B. Foundations and Substructures. A study of the principles and practice of design and construction of substructures and of the materials and manufacture of concrete. *A. Lectures, two credits; B. Laboratory, one credit. Second semester.* Electrical Building. Boardman. (Alternates with C. E. 67.) (Not offered in 1936–1937.)

58. Sm. Summer Surveying. This course starts directly after the close of the regular college year in May. The work consists principally of topographic and mine surveying accompanied by related computations and mapping. The former involves careful base line measurement and triangulation for control, followed by topographic surveying by the plane table method. In the mine surveying, both surface and underground work is done and a mine map showing the underground working is made by each student. Direct solar observations are taken for meridian and latitude and special emphasis is given to computations. *Prerequisite:* C. E. 51, 52, 53, and 54. Four weeks. Fee, $20, including automobile transportation costs. Boardman and Bixby.

60. Highway Engineering. A detailed study is made of the location, construction, and maintenance of highways. *Second semester. Two credits.* Electrical Building. Bixby.

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 53–54. *First semester. Lectures, three credits; laboratory, two credits.* Electrical Building. Bixby. Fee, $3.

67. Engineering Economics. Economic selection, sinking funds, salvage value, depreciation, estimating, etc. Illustrated by engineering problems. *First semester. Lectures, two credits.* Electrical Building. Boardman. (Alternates with C. E. 55.)

69. Graphic Statics. A course which covers the principles of graphic statics, and their applications to the analysis of stresses in statically determinate structures for various conditions of loadings. *Second semester. Lectures, 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:* Physics 1a and 2a or 3 and 4; Mathematics 25, 26 and 55. *Second semester. Lectures, three hours. Three credits.* Electrical Building. Amens.

75–76. STRUCTURAL ANALYSIS. A study of the determination of stresses in roof and bridge trusses and girders, and of the economic problems involved in the selection of the type of structure, materials to be used, length and number of bridge spans. *Prerequisite:* Mathematics 26. *Both semesters. Lectures three credits first semester, two credits second semester.* Electrical Building. Boardman.

77–78. STRUCTURAL DESIGN. Application of courses 75–76 and the principles and standard practice methods of design to the designs of several common types of steel structures. Complete working drawings are made of at least two structures, one of them being a railroad plate girder bridge. *Prerequisite:* Civil Engineering 75–76. *Laboratory, three credits first semester, two credits second semester.* Electrical Building. Boardman.

85–86. REINFORCED CONCRETE. The theory and practice of reinforced concrete design and construction. In the laboratory part of the course applications are made to the design of several types of structures, including a retaining wall and an arch bridge. *Prerequisite:* Mathematics 55 and Civil Engineering 74. *First semester, lectures, two credits; laboratory, two credits. Second semester, lectures, one credit; laboratory, two credits.* Electrical Building. Bixby.

90. HYDRAULICS. A study of the principles of hydraulics and hydrostatics, the pressure and buoyancy of water and the laws of its flow through openings and in channels of various kinds. Especial emphasis is laid on the solution of numerous practical problems by the student. *Prerequisite:* Mathematics 25 and 26, Physics 1a, 1b and 2a, 2b, or Physics 3 and 4. *Second semester. Lectures, three hours. Three credits.* Electrical Building. Boardman. Fee, $1.

91. SANITARY ENGINEERING. A combination course dealing with public water supplies and the sewerage and drainage of towns. Especial attention is given to methods of sewage disposal and to the purification of water. *Prerequisite:* C. E. 90. *Second semester. Lectures, three credits.* Electrical Building. Bixby.

94. IRRIGATION ENGINEERING. A study is made of the collection, storage, and distribution of water for irrigation, with special reference to the structures involved. *Prerequisite:* C. E. 90. *First semester. Lectures. Three credits.* Electrical Building. Bixby.

97–98. HYDROLOGY. The occurrence of water in the atmosphere, on the earth's surface and beneath the surface. The understanding of some of the many divisions of this subject is essential to a proper planning for any utilization or control of water by man. *Prerequisite:* Junior standing. *Two credits each semester.* 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. ADVANCED STRUCTURAL ENGINEERING. The analysis and design of one or more of the following types: Arch, cantilever, suspension and various types of movable bridges. *Prerequisite:* Civil Engineering 75, 76 and 77. *Lectures and laboratory. Four to six credits for the year according to work accomplished.* Electrical Building. Boardman.

199–200. GRADUATE THESIS. Advanced research work in the investigation of engineering materials or other engineering problems. *Both semesters. Credits to be arranged.* Electrical Building. Boardman.

THE CLASSICS

PROFESSOR CHURCH

Requirements for a minor in Classics: With no admission credits in Latin, Classics 1–2 (6 credits), 3–4 (6 credits), and 6 credits in the department in courses numbered 50 or above; with 2 admission credits, Classics 3–4 (6 credits), and 6 credits in the department in courses numbered 50 or above.

Requirements for a major in Classics: With no admission credits, Classics 1–2 (6 credits), 3–4 (6 credits), 57–58 (2 credits), and 10 credits in the department in courses numbered 50 or above; with 2 admission credits, Classics 3–4 (6 credits), 57–58 (2 credits), and 10 credits in the department in courses numbered 50 or above.

Entrance credits in Latin above 2, especially if they include Vergil's Æneid, will be accepted in meeting major and minor requirements.

I. Language

Only the courses in Language can be used to satisfy the general language requirement in the University.

1. Latin

1–2. Beginning Latin. This course is designed to prepare for the reading of Vergil and also for admission to the professional schools. Comparative Language, Medical Latin and Law Latin are stressed. *Both semesters. For students entering without high school credit in Latin, three credits each semester.*

For students entering with one year credit in high school Latin, two credits first semester and three credits second semester.

For students entering with two years' credit in high school Latin, three credits second semester only. 205 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.* 205 Morrill Hall. Church.

55. Cicero. De Senectute. *First semester. Three credits.* 205 Morrill Hall. Church.

56. Horace and Catullus. Latin Lyric Poetry. *Second semester. Three credits.* 205 Morrill Hall. Church.

Courses 55–56 given alternate years.

57–58. 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.* 205 Morrill Hall. Church.

101. Seminar for Graduates. (a) The study of the Roman burial formulæ, their development, and religious significance. (b) Comparative Mythology. Its religious, art, and literary forms. (c) Comparative Classical Literature.

II. Art

Note—A knowledge of Latin or Greek is not required for courses in Art and Literature.

41. Greek Art. Illustrated by lantern slides and reproductions. *First semester. Two credits.* 205 Morrill Hall. Church.

42. Roman to Modern Art. Illustrated by lantern slides and reproductions in color. *Second semester. Two credits.* 205 Morrill Hall. Church.

43–44. Supplementary Course in Appreciation of Art. Readings and reports. Open only to those who are taking or have taken the corresponding semester of Classics 41 or 42 or its equivalent. Particularly for students who desire to increase their credit hours in 41–42. *Either semester. One credit per semester.* 203 Morrill Hall. Church.

61. American Painting. Readings and discussions. Open only to those who have taken or are taking 42 or 74 or equivalent. *First semester. One credit.* 203 Morrill Hall. Church.

62. American Sculpture and Architecture. Readings and discussions. Open only to those who have taken or are taking 41–42 or 71–72 or equivalent. *Second semester. One credit.* 203 Morrill Hall. Church.

71. Advanced Greek Art. *Prerequisite, or to be taken simultaneously:* Classics 41. *First semester. Two credits.* 205 Morrill Hall. Church.

72. Advanced Roman to Modern Art. *Prerequisite, or to be taken simultaneously:* Classics 42. *Second semester. Two credits.* 205 Morrill Hall. Church.

73–74. Advanced Projects in Appreciation of Art. Open only to those who have taken or are taking Classics 41–42 or 43–44. *Either semester. One credit per semester.* 203 Morrill Hall. Church.

75. Beauty in Nature. Landscape, gardens, exploration.

Readings and discussions. *First semester. One credit.* 203 Morrill Hall. Church.

III. LITERATURE

51–52. COMPARATIVE CLASSICAL POETRY IN ENGLISH. The Epic, Lyric, Drama, and Pastoral, with supplemental reference to Classical and Teutonic Mythology and Modern Literature and Opera. *Both semesters. Two credits each semester.* 205 Morrill Hall. Church.

ECONOMICS, BUSINESS, AND SOCIOLOGY

ASSOCIATE PROFESSOR SUTHERLAND, ACTING HEAD OF DEPARTMENT
ASSOCIATE PROFESSOR WEBSTER
ASSISTANT PROFESSOR BLACKLER
ASSISTANT PROFESSOR PLUMLEY
MR. ROBERTSON
MR. COLLINS
JUDGE SOUTER

Requirements for a minor in Economics: Economics 1–2 (6 credits); 12 additional credits in the department, not less than 6 of which shall be in courses numbered 50 or above.

Requirements for a major in Economics: Economics 1–2 (6 credits), Economics 91–92 (6 credits), and 15 additional credits in the department, not less than 12 of which shall be in courses numbered 50 or above. Students doing half or more of their major work in Sociology may substitute Sociology 81–82 (4 credits) for Economics 91–92, in which case 17 additional credits in the department will be required, of which not less than 12 shall be in courses numbered 50 or above.

The following courses are recommended but not required for minors and majors in Economics: Philosophy 7–8, Psychology 5–51, Mathematics 18, French and German.

Economics

1. 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:* Sophomore standing. *First semester. Three credits.* Education Building. The Staff.

2. PRINCIPLES OF ECONOMICS. A continuation of 1. *Second semester. Three credits.* Education Building. The Staff.

3. INDUSTRIAL HISTORY OF EUROPE. The economic history of Europe in modern times, agricultural, industrial, and commercial development, rise of economic organization.

First semester. Two credits. Open to Freshmen. Education Building. Plumley.

5. ECONOMIC HISTORY OF THE UNITED STATES. Introductory historical treatment of the economic development of America, the industrial revolution, agricultural, commercial, and industrial development, immigration, geographical determinism, land policy, the labor movement, taxation, railroads and government regulation, etc. Open to Freshmen. *Second semester. Two credits.* Education Building. Plumley.

51. PUBLIC FINANCE. Public expenditure, classification of revenues, principles of taxation, growth of indebtedness, financial administration in peace and war, the connection between public finance and social reform. *Prerequisite:* Economics 1–2. *First semester. Two credits.* Education Building. Sutherland.

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. *First semester. Three credits.* Education Building. Plumley.

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. Two credits.* Education Building. Plumley.

54. PUBLIC UTILITIES. The development, organization, characteristics, and legal status of public service industries: regulation; labor relationships; taxation; valuation; capitalization; ownership; returns; cost and price of service. *Prerequisite: Economics* 1–2. *Second semester. Two credits.* Education Building. Sutherland.

55. TRANSPORTATION. The growth and development of railway transportation in the United States; the organization, construction, and management of modern railway systems; the theory of rates; the relation of the railroads to the public; the general scope and importance of the railway problem at the present time. *Prerequisite:* Economics 1–2 and Business 41. *Second semester. Two credits.* Education Building. Webster.

56. Insurance. A study of insurance institutions, and of the various kinds of property and life insurance. *Prerequisite:* Economics 1–2, Business 41. *Second semester. Two credits.* Education Building.

61. Statistical Methods. Elementary statistical methods as used in business and in the social sciences. Scrutiny of data, defining of units, tabulation, index numbers, correlation, law of averages, graphical methods of presenting facts. *First semester. Two credits.* Education Building. Webster.

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, employer's associations, government agencies, personnel administration, motives in industry. *Prerequisite:* Economics 1–2. *Second semester. Three credits.* Education Building. Webster.

65. Introduction to Economics and Business Administration. (College of Engineering.) *Prerequisite:* Junior standing. *First semester. Three credits.* Education Building. Plumley.

66. Industrial and Financial Organization. (College of Engineering.) *Prerequisite:* Economics 65. *Second semester. Three credits.* Education Building. Plumley.

69. Economics of Distribution. A study of the distribution of goods from the producer to the consumer. Study of demand and demand creation. Correlated material of markets and marketing; advertising; salesmanship and the economics of retailing will also be studied. Assigned case problems and research. *Prerequisite:* Economics 1 and 2. *Second semester. Three credits.* Education Building. Plumley.

91. Advanced Economic Theory. Advanced study of the principles of demand and supply including costs; of the functions of the different agents of production; of wages, interest, rent, and profits; and of the means for the promotion of welfare. *First semester. Three credits.* Education Building. Sutherland.

92. History of Economic Thought. A study of the development and trend of economic thought in its historical setting. *Second semester. Three credits.* Education Building. Sutherland.

93. Economic Thought in the Twentieth Century. Special reference to current trends. Open to Seniors and Graduates majoring or minoring in the department. *First Semester. Three credits.* Education Building. Sutherland.

94. Scope and Method of Economics. Open to Seniors and Graduates majoring or minoring in the department. *Second semester. Three credits.* Education Building. Sutherland.

95. Seminar. Hours to be arranged with individual students. *First semester. One credit.* Education Building. The Staff.

96. Seminar. Hours to be arranged with individual students. *Second semester. One credit.* Education Building. The Staff.

Business

41. Fundamentals of Business Organization. An introductory survey course in business, covering: The business structure; the business executive; internal and external factors in management; personnel administration; finance; accounting as an aid to management; production; marketing; administration of risk; business management and the business cycle; law and its relationship to business management. Functionalized management will also be studied. Principles and problems. *Prerequisite:* At least Sophomore standing. *First semester. Three credits.* Education Building. Plumley.

43–44. Elementary 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.* 202 Education Building. Blackler.

48. 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.* 109 Agricultural Building. Souter.

55–56. ADVANCED ACCOUNTING. Intensive study of the advanced theory of accounts and its application. Selected problems and readings. *Prerequisite:* Business 43–44. *Both semesters. Three credits each semester.* Education Building. Blackler.

65. ADMINISTRATION OF FINANCE. Principles and problems of financing business enterprises of various sizes and character. The course will also consider the principles of investment from the standpoint of the individual as to how and when to make investments; how to read the financial page; the principles of sound investments. Assigned case problems and research. *Prerequisite:* Business 41. *First semester. Three credits.* Education Building. Blackler.

66. ADMINISTRATION OF PRODUCTION. Internal organization and control for different forms of business enterprise. Principles of purchasing. Budgetary control; forecasting and planning in management; financial and operating ratios in business control; systems of internal check. Public relations. *Prerequisite:* Business 41. *Second semester. Three credits.* Education Building. Blackler.

74. ADVANCED BUSINESS LAW. A course in advanced business law designed for those students who are specializing in a preparation for business, including an intensive study of the law of contracts, negotiable instruments and banking practice in reference thereto, sales of personal property, industrial law, suretyship and guaranty, bankruptcy, agency, partnership, corporations, public utilities, common carriers, warehouse men, and related subjects. Open only to those students who have attained an average of at least 2.5 in B. A. No. 48. *Second semester. Three credits.* 215 Mackay Science Hall. Souter.

85. COST ACCOUNTING. A comprehensive study of all elements of manufacturing cost accounting; actual practice in recording, presenting and interpreting all elements involved in the computation of manufacturing costs; practice in design and preparation of cost accounting forms. *Prerequisite:* Business 43–44. *First semester. Two credits.* Education Building. Blackler. (Not given unless elected by six or more students.)

86. INCOME TAX ACCOUNTING. Study of the history of the federal income tax; the federal revenue acts and their interpretation; actual preparation of individual, partnership and corporation income tax returns; the important federal treasury department decisions on income tax problems. *Prerequisite:* Business 43–44. *Second semester. Two Credits.* Education Building. Blackler. (Not given unless elected by six or more students.)

95–96. SEMINAR IN BUSINESS. *One hour each semester.* Education Building. The Staff.

Sociology

1. PRINCIPLES OF SOCIOLOGY. A general course in the principles of sociology. Origin and development of societies, institutions, cultures, the state, civilizations. Conditions of modern society. *Prerequisite:* Sophomore standing. *First semester. Three credits.* Education Building. Webster.

2. SOCIAL PROBLEMS. A study of the problems of modern society and their remedies. *Prerequisite:* Sophomore standing. *Second semester. Three credits.* Education Building. Webster.

20. RURAL SOCIOLOGY. A study of rural life and rural problems with special reference to Nevada conditions. *Prerequisite:* Sophomore standing. *Second semester. Two credits.* Education Building. Webster.

71. SOCIAL ORGANIZATION. A course in the specific forms, functions and development of social groups. *First semester. Three credits.* Education Building. Webster.

72. SOCIAL INSTITUTIONS. A detailed study of the more important institutions of our social organization; the family, religious institutions and origins, educational institutions, the state, private property, legal and political organizations, charity and charitable organizations, stratification, etc. *Second semester. Three credits.* Education Building. Webster.

81. SOCIAL THEORY. The theoretical bases of social organization. Special reference to contemporary schools of social

thought. *First semester. Two credits.* Education Building. Webster.

82. Development of Social Theory. A study of the evolution of social thought with relation to cultural history. *Second semester. Two credits.* Education Building. Webster.

95–96. Seminar in Sociology. *Both semesters. One credit each semester.* Education Building. The Staff.

EDUCATION

PROFESSOR HALL, HEAD OF DEPARTMENT
PROFESSOR TRANER
ASSOCIATE PROFESSOR RUEBSAM
ASSOCIATE PROFESSOR BROWN
MRS. SIMAS
MR. VAUGHN
MR. JEPPSON
MISS AKIN
COOPERATING TEACHERS

Requirements for a minor in Education: Psychology 6 (3 credits), Education 60 (3 credits), Education 63 (1 credit), Education 71 (3 credits), Education 75 (2 credits), Education 76 (2 credits), Education 82 (2 credits), and 2 credits of special methods courses (Education 64, 65, 66, 88).

Requirements for a major in Education: Psychology 6 (3 credits), Education 60 (3 credits), 63 (1 credit), 71 (3 credits), 75 (2 credits), 76 (2 credits), 82 (2 credits), and 11 additional credits approved by the Dean.

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.* Education Building. Hall.

21. Teaching of Music. The aims and principles of music teaching in the kindergarten, elementary and upper grades, and high school. Rote songs, folk songs, part songs, care of child voice, song leading, music appreciation, and music problems confronting the teacher generally. *First semester. Two credits.* 204 Education Building. Post.

23. Problems in Rural Education. This course involves the consideration of fifteen major problems of the beginning teacher. Special attention is given to teaching in Nevada rural communities. *First year. First semester. Two credits.* 105 Education Building. Brown.

24. School Law. A consideration of the fundamental facts of school law and the fundamental problems of school organization from the point of view of the teacher in the elementary school. *Second year, second semester. One credit.* 103 Education Building. 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. Ruebsam.

28–29. Supervised Teaching and Group Conferences. The selection and organization of subject matter and the technique of teaching. *One hour a day, five days a week. Both semesters. Five credits each semester.* Public schools. Ruebsam, Brown, Hall and Cooperating Teachers.

30. Teaching of the Social Studies. A study of modern aims, objectives, methods and procedures of teaching elementary school social studies. Stress will be laid upon selection and organization of material for the upper grades and of the presentation of this material. *Second semester. Two credits.* 105 Education Building. Brown. Fee, $1.

33. The Community and the School. Study of the means by which the school and the home are made to function cooperatively. Special reference will be made to opportunities and responsibilities for leadership on the part of the school in the community. A continuation of Education 23. *Two credits. Second semester, first year.* 105 Education Building. Brown.

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. *Both semesters. Three credits.* 209 Education Building. Ruebsam.

35. The Teaching of English. Principles underlying the selection, organization and presentation of subject matter for grades 5 to 8 and the study of children's literature for these grades. *Second semester, second year. Three credits.* 209 Education Building. Ruebsam.

38. Teaching of the Social Studies. A study of the aims, objectives, materials, and methods of teaching the

social studies. The course will be particularly helpful for those planning to teach in the upper elementary grades. This course is an elective for Juniors and Seniors not expecting to teach in the primary grades. This course is an enlargement of Education 30. *First semester. Three credits.* 105 Education Building. Brown. Fee, $1.

41. CONSTRUCTIVE ACTIVITIES FOR PRIMARY GRADES. This course is devoted to a consideration of the materials by means of which the child organizes and expresses his ideas and establishes desirable attitudes and habits. *Second semester, first year. One credit.* 209 Education Building. Fee, $1. Ruebsam.

46. THE MANAGEMENT AND ORGANIZATION OF RURAL SCHOOLS. A study of the classroom problems of the rural school; organization, course of study, daily program, use of projects, classification, equipment, and discipline. A continuation of Education 20. *Second semester, second year. Two credits.* 104 Education Building. Hall.

48. EDUCATION 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. *First semester, second year. One credit.* 104 Education Building. Brown. Fee, $1.

56. SCOUTCRAFT. This course will deal with the theory and practice of Scoutcraft as presented by Boy Scouts of America, Girl Scouts, Camp Fire Girls, Girl Reserves, and similar organizations. Section 1, for women, Mrs. Simas. Section 2, for men, ... *One credit. Section 1 given first semester only. Section 2 given each semester.* Education Building.

57. HISTORY OF EDUCATION. General Course. The development of educational thought and practice viewed as a phase of social progress. Primarily for teachers in service. *First semester. Two credits.* Education Building. Brown.

58. HISTORY OF EDUCATION IN THE UNITED STATES. A study of forces and conditions which have been most influential in the shaping of educational ideals, theories, practices and problems at the present time. Primarily for teachers in service. *Second semester. Two credits.* Education Building. Brown.

Secondary Education

NOTE—Since the candidates for high school positions greatly exceed the number of vacancies open to inexperienced teachers, it is highly desirable that students qualify to do effective service in elementary schools. This would necessitate taking ten Normal School units including one semester of practice teaching. This work *should be started* during the Sophomore year.

60. PROBLEMS OF SECONDARY EDUCATION. This course involves the study of some of the major problems that confront the high school classroom teacher, as: the problem of evaluating student ability and achievement, adapting instruction to individual differences, the function and place of the high school in our educational system, and the educational values of high school subjects. Open to Juniors only. *Both semesters. Three credits.* 103 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.* Education Building. Billinghurst.

64. ADMINISTRATION AND ORGANIZATION OF HIGH SCHOOL ATHLETICS. A course covering high school competition in general, methods of organizing athletic associations and administration of same. *Second semester. Three periods per week. Two credits.* Martie.

65. HIGH SCHOOL MUSIC. Study of conducting choral and orchestral technique, appreciation classes, theoretical subjects and practical demonstrations. Active participation in orchestra, glee club or band required and applicant must be a Junior or Senior with a minor in music or its equivalent. *Second semester. Two credits.* Education Building. Post.

66. SUBJECT MATTER AND METHODS. A study of the most suitable subject matter for the different high school subjects and of the methods of teaching specific subjects. General class discussion and special study and reports and observation by individuals in their major and minor subjects. Section A, foreign languages; Section B, English. *First semester.* Traner. Section C, mathematics. *First semester.* Wood. Section D, science, and Section E, social subjects. *Second semester.* Brown. *One credit for each section.* Education Building.

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.* Education Building. Hall.

75–76. Supervised Teaching. Required for candidates for the high school teacher's certificate. This work will be done in Grades 7 to 12 of the Reno Public Schools under the direction of the Professor of Secondary Education, the teachers of Vocational Education, with the immediate supervision of the cooperating teacher in charge. Students must take particular care that they reserve ample time either in the forenoon or afternoon for the course. *Failure to do so may make the assignment for supervised teaching impossible. Both semesters. Two credits each semester.* Traner, Hall, Brown and Cooperating Teachers.

82. Noninstructional Responsibilities of the High School Teacher. A study of those responsibilities and requirements which the high school teacher must meet outside of class instruction. The course includes a consideration of the teacher's relations to the profession, to the school authorities and to the State and community. *Second semester. Two credits.* Education Building. Traner.

Agriculture and Home Economics

86. Problems in Agricultural Education. This course is a study of the most important problems that an agriculture teacher must meet: Selecting the subject matter for high school courses in agriculture and for farmer's short courses; preparing plans for teaching this subject matter; and making contact with the adult farmer. Open to Juniors and Seniors in the College of Agriculture to meet in part the requirements of the Smith-Hughes Act. *Second semester. Two credits.* Education Building. Jeppson.

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

Courses Offered Primarily for Teachers in Service Working for a Masters Degree

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

101–102. Research Course in the Problems of Secondary Education. A course for teachers and graduate students who wish to study intensively some problem in secondary education. Readings, class reports and a final term paper embodying some original research. *Two credits each semester. Given on sufficient demand.* Education Building. Traner.

104. Preschool and Primary Problems. Reading and discussion of current educational problems with some practical work in educational activities. This course is open to teachers and parents. *Second semester. Two credits.* Education Building. Ruebsam.

105–106. Research Course in Educational Finance. A course for teachers and graduate students who wish to make an individual study of general problems of school finances and a critical study of the financing of education in Nevada. Readings, class reports and a final term paper embodying some research. *Two credits each semester. Given on sufficient demand.* Education Building. Traner.

107. Diagnostic and Remedial Teaching. A course primarily for teachers in service. Intelligence and achievement tests for diagnostic and remedial measures. The nonstandardized objective test, its uses and abuses, will constitute an important phase in the discussions. *First semester. Two credits.* Education Building. Brown.

111–112. Junior High School Procedure. This course is intended for teachers in service. No. 111 will consist of a study of the organization, administration, curriculum, growth and development, and the personnel, of the Junior High School. *First semester.* No. 112 will be devoted to teaching procedures such as the assignment, the question, grading and promotions, as well as the extra curricular activities. *Second semester. Two credits each semester.* Education Building. Brown.

121–122. School Supervision. Studies in Elementary

School Problems. A course for teachers who wish to study the technique of the daily class meeting and problems of classroom procedure. Considerable time will be devoted to the program of the activity school. This course will be especially valuable for prospective supervisors and principals. A seminar. (Given on sufficient demand.) *Two credits each semester.* Education Building. Hall and Ruebsam.

ELECTRICAL ENGINEERING

College of Engineering

PROFESSOR S. G. PALMER, HEAD OF DEPARTMENT
ASSOCIATE PROFESSOR SANDORF

20. INTRODUCTORY ELECTRICAL ENGINEERING. An introduction to the study of electrical engineering. The work will consist of lectures, discussions and reports, based upon engineering applications of current interest. *First semester. One credit.* Electrical Building. Palmer.

24. ELEMENTS OF ELECTRICAL ENGINEERING. A beginning course in electrical engineering which is offered to both engineering and nonengineering students. A study of the laws and properties of electric and magnetic circuits, electrical meters and measurements, direct and alternating current machinery. This course will consist of lectures, recitations and laboratory demonstrations. *Second semester. Two 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. *Prerequisite:* Physics 4, Mathematics 15 and 16. *First semester. Three credits.* Electrical Building. Palmer.

52. ALTERNATING CURRENT MACHINERY. A study of alternating current motors, generators, transformers, converters, transmission lines, and auxiliary apparatus. The time is largely taken up with mathematical problems involved in the design and operation of such equipment. *Prerequisite:* E. E. 51. *Second semester. Three credits.* Electrical Building. Palmer.

53. ALTERNATING CURRENT MACHINERY. ADVANCED COURSE. A continuation of the preceding course, taking up the more advanced problems in the theory and characteristics of electrical circuits and machinery. *Prerequisite:* E. E. 52. *First semester. Three credits.* Electrical Building. Sandorf.

54. ELECTRICAL DESIGN. A continuation of Electrical Engineering 53, including a study of the fundamental principles underlying the design of electrical machinery. *Prerequisite:* Electrical Engineering 51, 52, 53. *Second semester. Three credits.* Electrical Building. Sandorf.

56. ALTERNATING CURRENT CIRCUITS. A study of the fundamental laws and properties of alternating current circuits and metering equipment. Solution of problems involving vectors and complex quantities. *Prerequisite:* E. E. 51. *Second semester. Two credits.* Electrical Building. Palmer.

61–62. ELECTRICAL ENGINEERING LABORATORY. Instruction in the use and care of electrical instruments and apparatus. Elementary tests on direct and alternating current machinery. *Prerequisite:* Physics 3, 4, 5, and 6. Students who have not completed the Physics requirements may register in this course upon recommendation of the Physics Department. Must be preceded or accompanied by E. E. 51 and either 52 or 72. *Both semesters. Lecture, one period; laboratory, one period. Two credits each semester.* Electrical Building. Sandorf. Fee, $2.50 per semester.

63–64. ELECTRICAL ENGINEERING LABORATORY. ADVANCED COURSE. The course is a continuation of the preceding one, and takes up the more advanced problems in electrical testing. *Prerequisite:* E. E. 51, 52, 61 and 62. *Both semesters. Four credits each semester.* Electrical Building. Palmer. Fee, $2.50 per semester.

65. ELECTRICAL ILLUMINATION. A study of the principles of electric lighting and illumination and the practical application of modern lighting equipment. *First semester. Two lecture periods. Two credits.* Electrical Building. Palmer.

66. ENGINEERING APPLICATIONS. A study of switchboards, oil circuit breakers, relays and other auxiliaries of modern electric power stations. An elective for electrical or mechanical students. *Second semester. Two lecture periods. Two credits.* Electrical Building. Palmer.

67. COMMUNICATION ENGINEERING. A study of fundamental principles in the field of communication including the mathematical theory and application of telephone transmitters and receivers, coupled circuits, transmission lines, and vacuum tube circuits. *Prerequisites:* Electrical Engineering 52, Mathematics 25 and 26, Physics 3 and 4. *First*

semester. Three credits. Two lecture periods and one laboratory. Electrical Building. Sandorf. Fee, $2.50.

68. COMMUNICATION ENGINEERING. A continuation of Electrical Engineering 67, including a study of rectifying systems, filters, radio and carrier systems of modulation and detection, antennas, and wave propagation. *Second semester. Three credits.* Electrical Building. Sandorf. Fee, $2.50.

72. ALTERNATING CURRENTS. A course in alternating current circuits and machinery for mechanical engineering students who have completed E. E. 51. *Two lectures; one laboratory period. Second semester. Three credits.* Electrical Building. Sandorf.

75. ELECTRICITY IN MINING. A study of the theory and application of electrical machinery commonly used in mining and associated fields. *Prerequisites:* Mathematics 11, 13, 14 and Physics 3 and 4 or Physics 1a and 2a. *Two lecture periods and one laboratory. Three credits. First semester.* Electrical Building. Sandorf.

76–77. ELECTRICAL ENGINEERING LABORATORY. The course is intended to offer an opportunity to supplement the required laboratory courses of experiments with further detailed study of laboratory problems in electrical testing. Projects may be assigned in any branch of electrical engineering. Students may register in the course who have completed in a satisfactory manner such other electrical engineering courses as may have a direct bearing on the work to be undertaken. *One or two credits each semester.* Electrical Building. Palmer or Sandorf. Fee, $2.50 per credit.

78–79. ELECTRICAL LABORATORY APPARATUS. In this course the student undertakes the design and construction of one or more pieces of permanent laboratory equipment. Satisfactory evidence must be presented of ability to undertake the work agreed upon. *One or two credits each semester.* Electrical Building. Palmer or Sandorf.

80. ELECTRICAL INVESTIGATION. Original investigation of some electrical engineering problem and writing of report. The report is intended to be the equivalent of a thesis. Elective for Seniors in electrical engineering, who, in the opinion of the instructor, are qualified to undertake the work chosen and are particularly interested in it. *Second semester. One to three credits.* Electrical Building. Palmer or Sandorf. Fee, $2.50 per credit.

85–86. COMMUNICATIONS LABORATORY. The course consists of assembling and testing circuits and apparatus used in electrical communication. Prerequisites required will depend upon the student's ability and practical experience. *One to two credits each semester.* Electrical Building. Sandorf. Fee, $2.50 per credit.

ENGLISH LANGUAGE AND LITERATURE

PROFESSOR HILL, ACTING HEAD OF DEPARTMENT
PROFESSOR HIGGINBOTHAM
ASSOCIATE PROFESSOR RIEGELHUTH
ASSOCIATE PROFESSOR HARWOOD
ASSISTANT PROFESSOR GRIFFIN
MR. MILLER
MR. .....

Requirements for a minor in English: English 1–2 (6 credits), English 44–45 (6 credits), and 6 additional credits in the department in courses numbered 50 or above.

Requirements for a major in English: English 1–2 (6 credits), English 44–45 (6 credits), and 15 additional credits in the department, at least 12 of which shall be in courses numbered 50 or above.

Literature and Composition

ENGLISH 0. Required of students in English 1 found deficient in their English preparation. To be taken along with English 1. *Two periods a week. No credit.*

1–2. COMPOSITION AND RHETORIC. The study of English as a means of self-expression, with special attention to the writing of exposition, description, and narration. *Both semesters. Three credits each semester.* The Departmental Staff.

NOTE—Students who receive a grade of 1 or 1.5 in English 1 may substitute for English 2 one of the courses in the department numbered 3 to 50 of a credit value of not less than two units. In no case may a course be used to meet both first-year and second-year requirements.

Any student who receives a failure in a course which he has substituted for English 2 will be required to register for English 2 the following semester.

A student who is habitually delinquent in the use of English in connection with any course in the University curriculum may be remanded to the Department of English to take without credit such

further work in composition as the Head of the Department thinks advisable.

3–4. ADVANCED COMPOSITION. Extensive practice in writing, planned to meet the individual needs of the student who wishes to develop his power of expression in English. *Both semesters. Two credits each semester.*

41–42. APPRECIATION OF LITERATURE. A study of the more important types of contemporary English and American literature. *Both semesters. Two credits each semester.* Riegelhuth and Harwood.

NOTE—Arts and Science students not majoring or minoring in English may, upon the approval of the Head of the Department, substitute for English 41–42 one of the other courses in the Department numbered 3 to 50 of a credit value of not less than two units.

44–45. AN INTRODUCTION TO LITERATURE. A course designed to acquaint prospective majors and minors in English with the technical forms of prose and poetry, to suggest methods of analysis and interpretation, and to provide a basis for the critical appreciation of literature. *Both semesters. Three credits each semester.* Riegelhuth and Harwood.

NOTE—English 44–45 is the prerequisite for all courses in Literature numbered 50 and above.

59–60. CREATIVE WRITING. The intensive study and practice of exposition, description, and narration, with special attention to the capabilities of the individual student. *Both semesters. Three credits each semester.* 102 Hall of English. Harwood.

66. THE ENGLISH ESSAY. A study of the development of the essay as a literary form from Bacon to the present day. *Second semester. Three credits.* 103 Hall of English. Riegelhuth. (Not offered in 1936–1937.)

68–69. THE ENGLISH NOVEL. A study of the development of the novel in England in the nineteenth and twentieth centuries. *Both semesters. Three credits each semester.* 101 Hall of English. Hill. (Not offered in 1936–1937.)

70–71. AMERICAN LITERATURE. The progress of America, as reflected in prose and poetry, from the end of the Colonial period to the present time. *Both semesters. Three credits each semester.* 101 Hall of English. Hill.

72–73. MODERN DRAMA. Representative English and American dramatists, since 1890, with an initial consideration of Ibsen. *Both semesters. Three credits each semester.* 101 Hall of English. Hill.

75–76. SHAKESPEARE. The reading of Shakespeare's principal plays and a close interpretation of two of his most characteristic dramas. *Both semesters. Three credits each semester.* 101 Hall of English. Hill.

77–77A. THE BIBLE AS LITERATURE. The study of representative literary types found in the Old Testament. *Prerequisites:* English 1–2 and 41–42 or 44–45. *Both semesters. Three credits each semester.* 101 Hall of English. Hill. (Not offered in 1936–1937.)

78. MILTON. Minor poems, dramas, and Paradise Lost. *Second semester. Three credits.* 101 Hall of English. Hill. (Not offered in 1936–1937.)

79. THE POETRY OF THE ROMANTIC PERIOD. A study of the movement with emphasis on Wordsworth and Coleridge. *First semester. Three credits.* 103 Hall of English. Riegelhuth. (Not offered in 1936–1937.)

80. VICTORIAN POETS. A study of the major poets against the background of the age. *First semester. Three credits.* 103 Hall of English. Riegelhuth.

85–86. ENGLISH DRAMA. A comprehensive survey of English drama from its beginnings to the end of the Nineteenth Century. *Both semesters. Three credits each semester.* 102 Hall of English. Harwood. (Not offered in 1936–1937.)

87–88. THE EIGHTEENTH CENTURY. Representative prose and poetry of the Age of Pope and the Age of Johnson. *Both semesters. Two credits each semester.* 102 Hall of English. Harwood. (Not offered in 1936–1937.)

94. CHAUCER. "The Canterbury Tales," with stress on the literary aspects of the work, rather than on the purely philological. *Second semester. Three credits.* 102 Hall of English. Harwood.

97–98, 99–100. HONORS FOR UNDERGRADUATES. Open only to Juniors and Seniors majoring in English who have attained an average grade of 2.0 in all their work. Hours to be arranged with individual students. *One credit a semester.* Departmental Staff.

101–102. SEMINAR. Open only to graduate students. *Both semesters.* Hours to be arranged with individual students. *One to three credits each semester.* Hill and Staff.

200. THESIS COURSE. Open only to candidates for a Master's Degree. *Six credits.* Hill.

Journalism

Requirements for a minor in Journalism: English 1–2 (6 credits), Journalism 21–22 (6 credits), Journalism 51–52 (4 credits), and 2 additional credits in Journalism courses numbered 50 or above.

Requirements for a major in Journalism: English 1–2 (6 credits), Journalism 21–22 (6 credits), Journalism 51–52 (4 credits), Journalism 53 (3 credits), Journalism 81–82 (2 credits), and 6 additional credits in Journalism in courses numbered 50 or above.

Courses in the social sciences and in literature should supplement those in Journalism.

1–2. Interpreting the Day's News. Study of the news of the day in relation to the function of the newspaper in American life. *Both semesters. Two credits each semester.* 101 Hall of English. Higginbotham.

21–22. News Gathering and Writing. What makes news, how news is obtained, and how news is written will be studied and the principles applied in reporting news for the U. of N. Sagebrush, the Reno newspapers, the Associated Press, and the United Press. Discussions and laboratory. *Prerequisite:* Sophomore standing and the consent of the instructor. *Both semesters. Three credits each semester.* 105 Hall of English. Higginbotham.

51–52. News Editing. Work in copy reading, rewriting, headline writing, news evaluation, and make-up is accompanied by study of the principles which govern these and similar duties of the newspaper copy editor and of the law of the press. *Prerequisite:* Journalism 21–22 and the consent of the instructor. *Both semesters. Two credits each semester.* 105 Hall of English. Higginbotham. (Not offered in 1936–1937.)

53. The History of Journalism in America. The development of the newspaper in America, from Colonial times to the present, especially in relation to political, economic, and social movements, is studied, as are the men and the newspapers which created the traditions governing modern journalism. Open to Juniors and Seniors. *First semester. Three credits.* 105 Hall of English. Higginbotham. (Not offered in 1936–1937.)

54. Advanced Reporting. Study of the background and materials of the news of public affairs, together with the actual reporting of such news from representative sources in Reno and Carson City. *Prerequisite:* Journalism 21–22. *Second semester. Three credits.* 105 Hall of English. Higginbotham. (Not offered in 1936–1937.)

56. Advertising and Advertisement Copy Writing. Study of the principles of advertising and their practical application in the writing of copy for the newspaper and the magazine. *Prerequisite:* Journalism 21–22, or the consent of the instructor. *Second semester. Three credits.* 105 Hall of English. Higginbotham.

65. The Community Newspaper. Study of the problems of journalism peculiar to the country weekly and small city daily, especially as found in Nevada. Editorial, circulation, and advertising management will be stressed. *Prerequisite:* Journalism 21–22. *First semester. Three credits.* 105 Hall of English. Higginbotham.

67. Editorial Writing. The study of the interpretation of contemporary events through the newspaper and magazine editorial, coupled with extensive practice in writing. *Prerequisite:* Journalism 21–22, or consent of instructor. *First semester. Two credits.* 105 Hall of English. Higginbotham.

68. The Feature Article. The study, writing, and marketing of the special feature article for magazines and newspapers. *Prerequisite:* Journalism 21–22, or the consent of the instructor. *Second semester. Two credits.* 105 Hall of English. Higginbotham.

79. Problems in Journalism. A special phase of journalism, not covered by other courses and adapted to the particular needs of the group of students eligible will be studied. *Prerequisite:* Journalism 21 – 22, or the consent of the instructor. *Second semester. Three credits.* 105 Hall of English. Higginbotham. (Not offered in 1936–1937.)

81–82. Advanced Editorial Practice. Reporting and copy reading as members of the staffs of the Nevada State Journal and the Reno Evening Gazette. *Prerequisite:* Open only to Seniors in the Course in Journalism or Senior majors in Journalism. *Both semesters. One or two credits each semester.* 105 Hall of English. Higginbotham.

93–94–95–96. Honors for Undergraduates. Open only to Juniors and Seniors in the Course in Journalism or majoring in Journalism who have attained an average grade of 2.0 in all their work. Hours to be arranged with individual students. *One credit a semester.* Higginbotham.

Speech

11–12. PUBLIC SPEAKING. The principles of effective public speaking studied and practiced through organized student discussions of contemporary controversial problems. Speech form and speech content are equally emphasized. *Both semesters. Two credits each semester.* Griffin and Miller.

16–17. ARGUMENTATION AND DEBATE. The study of the principles of argumentation with the preparation of briefs, the participation in class debates, and the presentation of argumentative talks. The study of thinking, and the expression of thoughtful opinions on current topics are stressed. *Both semesters. Two credits each semester.* This course may be repeated for credit as 16A, 16B, etc. 107 Hall of English. Griffin.

21–22. EXPRESSION. The oral interpretation of the forms of literature with special attention directed to diction, gesture, the voice, and platform poise. The course is recommended to beginning students in public speaking, teaching, and dramatic work. *Both semesters. Two credits each semester.* 106 Hall of English. Miller. (Not offered in 1936–1937.)

23–24. THE DRAMA OF TODAY. An interpretation of the trend and social significance of modern plays. Primarily for Freshmen and Sophomores not majors or minors in English. *Both semesters. Two credits each semester.* Miller.

61–62. ADVANCED SPEECH COMPOSITION. Study of effective speech composition, based upon application of rhetorical and psychological principles. First semester preparation of extended oration on current social or political problems. Second semester study and preparation of speeches for special occasions: Eulogy, introduction, after-dinner, commemoration, etc. Open to limited number of students with consent of instructor. *Two credits each semester.* 107 Hall of English. Griffin.

63–64. HISTORY OF ORATORY. Examination of backgrounds, methods, and ideals of modern oratory. Particular attention to the outstanding figures of each period, with study of historical settings and significance of each orator. British oratory is studied first semester and American oratory the second. *Prerequisite:* English 11–12 or 16–17. *Both semesters. Two credits each semester.* 107 Hall of English. Griffin.

81–82. PLAY PRODUCTION. The reading, study and production of representative Shakespearean and modern plays, with lectures, readings, and reports. Practice work is offered in all the aspects of play production: management, lighting, scenery, make-up, directing, acting, etc. The course aims to aid the prospective high school teacher. *Prerequisite:* Junior standing. *Both semesters. Three credits each semester.* This course may be repeated for credit as 81A, 81B, etc. Education Auditorium and 106 Hall of English. Miller.

83. PARLIAMENTARY LAW AND PRACTICE. Study and practice of the parliamentary rules and procedure governing deliberative assemblies. Organization of model parliamentary groups, with rotating chairmanship and routine transaction of typical business of such groups. Practice in drawing up model constitutions. *First semester. Two credits.* 107 Hall of English. Griffin. (Not offered in 1936–1937.)

84. MODERN DEBATE PRACTICE AND PROBLEMS. Study and discussion of the various types of modern debates, with particular attention to the problems of directors and coaches. Bibliographies and collateral readings in textbooks and speech journals. Conduct of debates and methods of judging. *First semester. Two credits.* 107 Hall of English. Griffin. (Not offered in 1936–1937.)

GENERAL ENGINEERING

1. ENGINEERING ORIENTATION. See page 267 for description of this course.

2. 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.

3–4. ARCHITECTURAL DRAWING. Perspective drawing, building plans, historical basis of architectural design. The five orders of classical architecture; influence of Roman, Medieval and Renaissance architecture on modern design. *Both semesters. Two credits per semester.* Education Building. Lewers.

5. ELEMENTARY MECHANICAL DRAWING. Training in the

use of drawing instruments, lettering, geometrical construction, dimensioning, pictorial projection, working drawings of machine parts from copy and from models, tracing and blue printing. Required of all Freshmen. *First semester. Laboratory. Two credits.* Electrical Building. Amens.

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 15. *Second semester. Laboratory, two periods. Two credits.* Electrical Building. Amens.

GEOLOGY

PROFESSOR GIANELLA, ACTING HEAD OF DEPARTMENT
PROFESSOR CARPENTER
ASSISTANT PROFESSOR WHEELER

Requirements for a minor in Geology: Geology 8, 9, 11 and 12 (10 credits), and 8 additional credits in the department, at least 6 of which must be in courses numbered 50 or above.

Requirements for a major in Geology: Geology 8, 9, 11, 12 and 14 (12 credits), and 15 additional credits in the department, at least 12 of which must be in courses numbered 50 or above.

1. Physiography. (Not open to Arts and Science students for credit.) A study of processes active upon or within the crust of the earth, with special emphasis on the resultant surface expression. *First semester. Two credits.* Mackay School of Mines. Wheeler.

8. General Geology. A study of the forces on or within the earth, dealing chiefly with the dynamic and structural aspects of the subject. The interpretation of topographic maps. *Prerequisite:* At least Sophomore standing. *Either semester. Three credits.* Mackay School of Mines. Gianella and Wheeler.

9. Historical Geology. An outline of the origin and history of the earth, including the diastrophic changes, stratigraphic relationships, and the description of the physical geography and life of the successive geological periods, with especial reference to the North American Continent. *Prerequisite:* Geology 8 or 10. *Either semester. Three credits.* Mackay School of Mines. Wheeler.

10. Engineering Geology. (College of Engineering.) A study of the forces active on and within the earth, and their results, with especial emphasis on their effects on engineering problems. The recognition of common rocks and minerals and the interpretation of topographic maps. *Second semester. Three credits.* Mackay School of Mines. Gianella and Wheeler.

11. 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 5 and 6, or the equivalent. *First semester. Two credits.* Mackay School of Mines. Gianella. Fee, $2.

12. Blowpipe Analysis. The determination of minerals by blowpipe analysis. *Prerequisite:* Chemistry 5 and 6, or the equivalent, and Geology 11. *Second semester. Two credits.* Mackay School of Mines. Wheeler. Fee, $3.

14. Descriptive Mineralogy. Lectures and recitations on the classification, salient properties, occurrence, genesis, and uses of the more important minerals, illustrated by typical specimens. *Prerequisite:* Geology 11. *Second semester. Two credits.* Mackay School of Mines. Gianella.

51. Petrology. The study of rock-forming minerals and rocks in the hand specimen. Lectures on the characters, origin, and classification of rocks. *Prerequisite:* Physics 1A-2A or 3–4, Geology 8 or 10, 9, 11 and 12. *First semester. Two credits.* Mackay School of Mines. Gianella. Fee, $2.

52. Petrography. Lectures on the genesis of rocks, and the study of rock-forming minerals and rocks under the microscope. *Prerequisite:* Geology 11 and 12 and 51. *Second semester. Three credits.* Mackay School of Mines. Gianella. Fee, $2.

53. Stratigraphic Paleontology. A laboratory study of the hard parts of the major invertebrate groups, the faunal assemblages of the geologic past, and the application of paleontologic methods to stratigraphic geology. *Prerequisite:* Geology 8 or 10, and 9 (Zoology 2 recommended). *First semester. Two credits.* Mackay School of Mines. Wheeler.

55. Advanced Mineralogy. Advanced work in either blowpipe analysis, crystallography, or the determination of minerals under the microscope. *Prerequisite:* Geology 11,

12 and 14. *Either semester. One or two credits.* Mackay School of Mines. Gianella. Fee, $2.

60. Economic Geology of the Nonmetals. The first part of the course deals with the geology of ground water and petroleum, followed by a study of the occurrence, distribution, origin, and economic value of other nonmetals of western United States. *Prerequisite:* Geology 8 or 10, 9, 11, 12, and 14. *Second semester. Three credits.* Mackay School of Mines. Wheeler and Carpenter.

61. Economic Geology of the Metals. The geology of ore deposits, treating of their distribution, origin, mode of occurrence, and alteration; with special reference to the more important mining districts of North America. *Prerequisite:* Geology 11, 12, 14 and 51 (Geology 52 recommended). *Second semester. Three credits.* Mackay School of Mines. Gianella.

70. Field Geology. Instruction in field methods and the investigation of the principal geologic features of several areas in the Reno region. Transportation and other expenses are covered by the S. Frank Hunt Foundation. *Prerequisite:* Geology 11, 12, 14 and 51. *Second semester. One credit.* Mackay School of Mines. Gianella.

71. Summer Field Geology. Two or more weeks of study in one or more critical areas where both surface and subsurface geology may be investigated. Reports, well-kept field notes and finished maps are required of each student. All expenses in connection with this course are defrayed by the S. Frank Hunt Foundation. *Prerequisite:* Geology 51 and 60 or 61 (and preferably Geology 52 and 82). *Credits to be arranged.* Mackay School of Mines. Gianella and Wheeler.

79. Geologic Investigation. Original investigation of a geologic problem. *Prerequisite:* Geology 51, 52 and 60 or equivalent training. *First semester. One or two credits to be arranged.* Mackay School of Mines. Gianella and Wheeler.

80. Geologic Investigation. A continuation of Geology 79. *Second semester. Credits to be arranged.* Mackay School of Mines. Gianella and Wheeler.

82. Structural Geology. A brief course treating of the deformation of the earth's crust. *Prerequisite:* Geology 14 and 51. *Second semester. Two credits.* Mackay School of Mines. Gianella.

179–180. A Graduate Course. Credits and fee to be arranged according to work undertaken. Mackay School of Mines. Gianella.

199–200. Thesis. *Six to ten credits.* Fee to be arranged according to work undertaken. Mackay School of Mines. Gianella.

HISTORY AND POLITICAL SCIENCE

PROFESSOR WIER, HEAD OF DEPARTMENT
PROFESSOR HICKS
ASSOCIATE PROFESSOR FEEMSTER
ASSOCIATE PROFESSOR SMITH

Requirements for a minor in History: History 1–2 (6 credits), History 5–6 (6 credits), and 6 additional credits in the department in courses numbered 50 or above.

Requirements for a major in History: History 1–2 (6 credits), History 5–6 (6 credits), and 15 additional credits in the department, at least 12 of which must be in courses numbered 50 or above.

Requirements for a minor in Political Science: History 1–2 (6 credits), Political Science 1–2 (4 credits), and 8 additional credits in the department in courses numbered 50 or above.

Requirements for a major in Political Science: History 1–2 (6 credits), History 5 (3 credits), Political Science 1–2 (4 credits), and 14 additional credits, at least 12 of which must be from Political Science courses numbered 50 or above, or History 73–74 (2 or 4 credits), 87–88, 89–90 (each 4 credits), or in both, but not more than 6 of these 14 may be chosen in History.

For majors in History and Political Science choice is to be made according to aim in view and is to be approved by the head of the department. Requirement for the department's recommendation for the teaching of History in high schools: A major, including History 51, History 55–56, and History 71–72.

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 in History. Political Science 1–2 is prerequisite to all other courses in Political Science except 79–80. History 79–80 (4 credits) or History 91–92 (4 credits) is recommended for Political Science majors and minors.

History

1–2. History of the Americas. Against a broad European background the spread of civilization in America will be traced. The development of each geographical section will be presented and the relation shown of each section to America as a whole. Culmination of the study will be found in a survey of the Great Basin and the place of Nevada in that basin. The course will deal in a comprehensive way with the large movements of a political, economic, and social nature in the New World. It is intended to give a new and large American perspective. The Constitutions of

the United States and of Nevada will be studied in fulfillment of the state legal requirement. *Either semester. Three credits each semester.* Regular Freshman History Course. 101 Stewart Hall. Wier, Hicks and Smith.

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. Smith.

51. THE TEACHING OF HISTORY. A study of the aims, methods, and materials for history teaching in secondary schools and colleges. Required for departmental recommendation for high school teaching of history. *First semester. Two credits.* 101 Stewart Hall. Wier.

53. INSTITUTIONAL RELATIONS OF WOMAN IN HISTORY. A study of woman's characteristics in relation to social and industrial life both in past centuries and at the present time. Especial emphasis on the vocations now open to women and the significance of college education in preparation for the same. Lectures on various vocations will be given by representatives of these professions and industries. Open to Freshmen women, as well as to all other women students. *First semester. Two credits.* 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.* (Alternates with 62.) 101 Stewart Hall. Wier.

55–56. WESTWARD EXPANSION OF THE UNITED STATES. A study of the westward movement from the Atlantic to the Pacific and of the continuous influence of the West upon national and international affairs. Particular attention will be given to the political, economic, and social aspects of the occupation of the various sections. Required for departmental recommendation for high school teaching of history. *Both semesters. Two credits each semester.* 101 Stewart Hall. Wier. (Not given in 1936–1937.)

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.* Hicks.

62. PRE-HISTORY. A study of human civilization before the time of written records. (To alternate with History 54.) *Second semester. Two credits.* 101 Stewart Hall. Wier. (Not given in 1936–1937.)

63–64. ENGLAND AND THE BRITISH EMPIRE. A study of the political and social development of England and a consideration of the interrelationships of the various units in the British Empire. (Given in alternate years.) *Two credits each semester.* Hicks. (Not given in 1936–1937.)

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. Credits to be arranged.* 101 Stewart Hall. Wier. (Indefinitely postponed until library materials are again available.)

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.

73–74. ANCIENT INSTITUTIONS AND ROMAN LAW. An introduction to historical jurisprudence in the survey of the chief legal codes in force in early history as the background of the modern world, Hebrew, Greek, Roman to the codification of Justinian, with major emphasis on Roman Law. Library references to Maine, Lee, Kocourek and Wigmore, and Vinogradoff will be available. The course coordinates

with English Constitutional History. *Both semesters. One or two credits per semester.* 105 Stewart Hall. Feemster. (Not given in 1936–1937.)

76. Medieval Civilization and Institutions. A study of the feudal system, the system of universal monarchy as embodied in the Holy Roman Empire, of the Church as the controlling force, etc. *Second semester. Three credits.* 101 Stewart Hall. Wier. (Given on sufficient demand.)

79–80. The French Revolution. Its causes and constitutional experiments. Studied from the European and American standpoint rather than as a French local crisis. *Both semesters. Two credits each semester.* (Alternates with 55–56.) 101 Stewart Hall. Wier.

81–82. The Far East. The aim of this course is to give students a better understanding of the peoples of the Orient. The history of China and Japan is dealt with, stress being laid upon the relations of the western nations and the peoples of the two leading oriental countries especially since the middle of the Nineteenth Century. *Both semesters. Two credits each semester.* Hicks.

83. Russia and Her Neighbors. The course is essentially a study of modern Russia in the light of historical development. A standard work like Wallace is read and applied to Russia of today as a method of approaching the present Russian enigma. *First semester. Two credits.* 105 Stewart Hall. Feemster.

85–86. The Middle Period. United States History from the Second War with Britain to the Rebellion of the Cotton States. A more intensive study from the standard historians and sources of the formative period of American political character as distinct from inherited Anglo-Saxon institutions. The rise of the protective tariff system, and fall of the national banking system and currency. Jacksonian democracy and the rise of the National Party system, United States hegemony in the rising group of western republics, expansion and territorial imperialism, the losing struggle of the Slave States to control Congress, political constitutional philosophy on the nature of the Union, nullification, the rise of the New Republican Party, the breakdown of Constitutional Federal Government and the appeal to the sword. *Both semesters. Two credits each semester.* 105 Stewart Hall. Feemster.

87–88. English Constitutional History. A study of the rise of the English constitution out of the institutions of the medieval world. Comparison will be made with the contemporary institutions of the church, the Holy Roman Empire and the early French Monarchy. *Both semesters. Two credits each semester.* 105 Stewart Hall. Feemster. (Not given in 1936–1937.)

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. Two credits each semester.* 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 those specially qualified. The course will trace world movements from the Spanish-American War to the outbreak of the War of 1914. *First semester. Two credits.* 105 Stewart Hall. Feemster.

92. The Twentieth Century: The Struggle of the Nations. A continuation of course 91. A critical study of war history and war historians, with source studies on selected topics. *Second semester. Two credits.* Feemster.

99–100. History Thesis Work. *Both semesters. Credits to be arranged.* 101 Stewart Hall. Wier.

199–200. Graduate Thesis. *Both semesters. Credits to be arranged.*

Political Science

1–2. Comparative Government. This course is to be regarded as introductory to the other courses in the department. 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. Two credits each semester.* 105 Stewart Hall. Feemster and Hicks.

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. Two credits.* 105 Stewart Hall. Feemster. (Not given in 1936–1937.)

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. Two credits.* 105 Stewart Hall. Feemster.

64. INTERNATIONAL LAW. An elementary study of the principal topics, accompanied by examination of leading cases. *Second semester. Two credits.* 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. (Not given in 1936–1937.)

73–74. ROMAN LAW. An introduction to the Institutes of Justinian and the Roman System of Jurisprudence. Fundamental to the study and understanding of modern law. *Both semesters. One credit each semester.* 105 Stewart Hall. Feemster. Given in alternate years. (Not given in 1936–1937.)

79–80. THE CONSTITUTIONS OF THE UNITED STATES AND NEVADA. For Seniors of all colleges. *Both semesters. One credit.* Feemster.

85–86. COLONIAL EXPANSION. The history of the colonial acquisitions of the great nations and a comparative study of institutions developed therein, with special emphasis upon the United States. *Both semesters. Two credits each semester.* 101 Stewart Hall. Wier. (Given on sufficient demand.)

87–88. ENGLISH CONSTITUTIONAL LAW. An introduction to such legal classics as Blackstone and Dicey, together with leading sample cases on the law and constitution of England. Fundamental to American Constitutional Law and History. *Both semesters. One credit each semester.* Feemster. Given in alternate years. (Not given in 1936–1937.)

89–90. AMERICAN CONSTITUTIONAL LAW. Deals with the basic supreme court decisions in the development of the United States of today. *Both semesters. One credit each semester.* Feemster.

93–94. POLITICAL PROBLEMS. Open to accredited students in the department and by permission to intercollegiate debaters. Current controversial issues will be selected each semester for analysis and investigation in the best current departmental periodicals. *One-half to two credits per semester according to work done.* 105 Stewart Hall. Feemster.

99–100. THESIS.

199–200. GRADUATE THESIS. Library facilities are available in two subjects. The Constitutional Convention of 1787, and the diplomacy of the outbreak of the war of 1914. *Both semesters. Credits to be arranged.* Library. Feemster.

HOME ECONOMICS

College of Agriculture

PROFESSOR LEWIS, HEAD OF DEPARTMENT
ASSOCIATE PROFESSOR POPE
MISS .....

3. INTRODUCTORY COURSE. This course is planned to help Freshmen solve their present student problems, assist them in the selection of courses for succeeding years, and to acquaint students with the scope of Home Economics and the opportunities offered in this field. *First semester. Lecture, two periods. Two credits.* 110 Agricultural Building. Lewis and Pope.

9. GENERAL HOME ECONOMICS. This course, offered for Normal School students, deals with the following units: Selection and care of clothing; community and family relationships; hot school lunch; and school hygiene. *First semester. Lecture, two hours; laboratory, one period. Three credits.* 203 Agricultural Building. Lewis, Pope. Fee, $2.

15–18. CLOTHING. A course dealing with the adaptation and modifications of commercial patterns. Study and working out of individual clothing budgets; selection and construction of underwear and dresses suitable for the University girl. *Both semesters. Lecture, one hour. Laboratory, two periods. Three credits each semester.* 204 Agricultural Building. Pope. Fee, $2.

16. TEXTILES. A study of the chief textile fibers and analysis of fabrics. The aim of the work with fibers is to

form a basis for an understanding of fabrics. It includes the study of methods of production of raw materials and of manufacturing processes as related to quality of fabrics. The study of fabrics is based upon the analysis of different materials to find the relation between quality and the fiber, weave, adulteration, finish and cost. *Second semester. Lecture, one hour; laboratory, one period. Two credits.* 108 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.* 203 Agricultural Building. Fee, $5.

33. Foods and Nutrition. This course is planned for any student who desires to be informed on the problem of human nutrition, and is of equal interest to men and women. A brief study of the composition and cost of foods; the essentials of an adequate diet. Food plans to meet these essentials are discussed. In the laboratory an application is made of some of the modern theories of cooking, planning, and serving of meals. Not open to Freshmen. *Second semester. Lecture, two periods. Laboratory, one period. Two or three credits.* 204 Agricultural Building. Lewis. Fee, $3.

42. Food Economics. Household and institution purchasing; a study of grades, brands and qualities of food products as found on the market. *Lecture, one hour; laboratory, one period. Two credits. First semester.* 203 Agricultural Building. Fee, $1.

45. Related Art. A study of color and design with applications made through the mediums of block-printing, tie-dyeing, batik, knitting, crocheting, and problems woven on the looms. The construction of these problems into finished articles, such as mounted block prints, and loom problems into purses, pillow tops, scarves, and rugs. *Either semester. Laboratory, two periods. Two credits.* 108 Agricultural Building. Pope. Fee, $2.50.

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.*

54. Home Nursing. This course aims to give the students a knowledge of the general home care of the sick; the sick room, its equipment and care; various types of diseases, their symptoms and treatment; and the immediate care in accidents and emergencies. *Second semester. Lectures; two periods. Two credits.* Lewis.

55. Foods and Cookery. This course includes a consideration of food from the standpoint of cost, preparation, planning and serving meals, and field trips. The project work consists of an intensive study of types of food in which the individual is particularly interested. The lectures include a study of kinds, selection and care of linen, china, and silver. *Prerequisite:* Home Economics 31 – 32, and Home Problems. *Lectures, one period; laboratory, three periods. Four credits. First semester.* 203 Agricultural Building. Pope. Fee, $5.

66. Advanced Clothing. Costume design and tailoring. A study of line and proportion of the average human figure, together with a study of the principles of design, color and materials, forms the basis for designing garments for various types. The selection of a complete outfit including accessories, and the construction of the outer garments constitute the major part of the laboratory work. The history of costume and the stages in its development is presented. *Prerequisite:* Home Economics, 15, 18, and Home Problems. *Lecture, one period. Laboratory, two periods. Three credits. Second semester.* 204 Agricultural Building. Pope. Fee, $2.

67. Clothing. Planning and selection of children's garments emphasizing speed, labor saving methods and relative

costs in their construction. May register with the consent of the instructor. *First semester. Laboratory, two periods. Two credits.* 204 Agricultural Building. Pope. Fee, $2.

68. COSTUMES. This course includes a study of color, effects of color on different types of individuals and the effect of light on colors. It deals with design and becoming and unbecoming lines as illustrated in costumes. Laboratory work takes up the making of costumes. *Second semester. Laboratory, two periods. Two credits.* 204 Agricultural Building. Pope. Fee, $2.

76. CHILD CARE. A study of the development of the child from the beginning of life through adolescence, habit formation, proper feeding, and nursery school. *Prerequisite:* Psychology 5. Open to Juniors and Seniors only. *Both semesters. Lectures, two periods. Two credits.* 105 Agricultural Building.

81. DIETETICS. A study of the fundamental principles of human nutrition and their application to the feeding of individuals and groups under varying physiological and economic conditions. *Prerequisite:* Home Economics 31-32, 55, Home Problems, Chemistry 26, Zoology 7-8. *First semester. Two credits.* 204 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; Home Problems; Chemistry 26; Zoology 7-8. *Parallel:* Home Economics 81-83. *First semester. Laboratory, three periods. Three credits.* 203 Agricultural Building. Lewis. Fee, $5.

85. SPECIAL PROBLEMS IN FOODS. A course intended for advanced students capable of experimental and research work. *Prerequisite:* Home Economics 31-32, 55. (Given on request.) *Laboratory, two periods. Two or more credits, according to work done.* 203 Agricultural Building. Lewis. Fee, $5.

86. HOUSEHOLD ADMINISTRATION. This course is divided into two units. The first unit traces the evolution of woman's work and her changing relation to home and society through the ages to the present time. In the second unit a study is made of the modern home, its equipment and scientific management, with a special emphasis on budgeting. Open to Juniors and Seniors only. *Second semester. Lectures, two periods. Two credits.* 204 Agricultural Building. Lewis.

87. HOUSE DECORATION. Planning, decorating, and furnishing of homes, considering art, convenience, sanitation, and economy. *Prerequisite:* Art 5, Home Economics 16, 45. *Second semester. Lecture, one period; laboratory, two periods. 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. *Second semester. Lecture, one period; laboratory, one period. Two credits.* 109 Agricultural Building. Pope. Fee, $1.

92. DIET AND DISEASE. A study of the value of diet in the treatment of disease. (For students who expect to qualify as professional dietitians.) *Prerequisite:* Home Economics 81-83. *Second semester. Lecture, one period. Laboratory, one period. Two credits.* Agricultural Building. Lewis. Fee, $2.50.

94. EXPERIMENTAL COOKERY. Development of experimental methods and their application to investigations in cookery. *Prerequisite:* Home Economics 55. *Laboratory, two periods. Two or more credits according to work done.* Agricultural Building. Given alternate years. Fee, $5.

95. SPECIAL PROBLEMS IN CLOTHING. A course designed for advanced students who wish to carry further the study of some problems suggested or touched upon previously in Home Economics work. This course is elective at discretion of the Instructors. *Given on request. Lecture, one period; laboratory, one period. Two to four credits.* 108 Agricultural Building. ..... Fee, $2.

96. QUANTITY COOKERY. Application of principles of cookery to large quantity preparation; standardization of recipes; calculation of food value and costs. Menu planning. *Prerequisite:* Home Economics 55. *Laboratory, two periods. Two or more credits according to work done.* Given alternate years.

98. INSTITUTIONAL MANAGEMENT. A study of the principles of organization, administration and equipment as

applied to various types of institutions. *Prerequisite:* Home Economics 55. *Lecture, two periods. Two credits.*

Ed. 88. TEACHER-TRAINING COURSES IN HOME ECONOMICS. *See Education.*

MATHEMATICS AND MECHANICS

PROFESSOR WOOD, HEAD OF DEPARTMENT
ASSISTANT PROFESSOR AYRES
MISS ROSS

Requirements for a minor in Mathematics: Mathematics 11 (2 credits), 13 (3 credits), 14 (3 credits), 25–26 (6 credits), or their equivalent, and 4 additional credits in the department in courses numbered 50 or above.

Requirements for a major in Mathematics: Mathematics 11 (2 credits), 13 (3 credits), 14 (3 credits), 25–26 (6 credits), or their equivalent, and 12 additional credits in the department in courses numbered 50 or above.

Mathematics 15 (5 credits) and 16 (5 credits) may be substituted for 11, 13, and 14 in the major and minor requirements.

5. ELEMENTARY ALGEBRA. A thorough study of elementary algebra including quadratic equations. The course is designed to suit a variety of students, those having had practically no algebra and those having had as much as one year in the high school. This course will be required of students whose credentials permit them to take Mathematics 11 or Mathematics 15, but who are unable to carry these courses. Students entering the University with more than one year of high school algebra will receive no credit for this course. *Each semester. Two credits.* Mackay Science Hall.

7. SOLID GEOMETRY. The geometry of the plane, the cone, the prism, the pyramid, and the sphere. *Second semester. Two credits.* Mackay Science Hall. Ayres.

11. COLLEGE ALGEBRA. The usual topics of college algebra, with special emphasis upon the topics that will be most helpful in the higher courses in mathematics. *Each semester. Two credits.* Mackay Science Hall. The Departmental Staff.

13. PLANE TRIGONOMETRY. A study of the trigonometric functions and indentities. Considerable time is devoted to the solution of triangles. *Each semester. Three credits.* Mackay Science Hall. Ross.

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. *Prerequisites:* Mathematics 11, 13. *Second semester. Three credits.* Mackay Science Hall. Ross.

15–16. ELEMENTARY MATHEMATICAL ANALYSIS. A unified treatment of the elements of college algebra, trigonometry, and analytic geometry, with special emphasis upon the applications. This course is required of all engineering students and recommended for all others who intend to specialize in mathematics or who desire mathematical preparation for scientific work. *Both semesters. Five credits each semester.* Mackay Science Hall. The Departmental Staff.

18. MATHEMATICAL THEORY OF INVESTMENT. A mathematical study of interest, annuities, sinking funds, depreciation, amortization and other topics relating to business problems, including an introduction to the Mathematics of Life Insurance. *Prerequisite:* Mathematics 11. *Second semester. Three credits.* Mackay Science Hall. Alternates with Mathematics 20. Ayres.

20. MATHEMATICAL STATISTICS. A mathematical study of frequency distributions, averages, dispersion, probable error, correlation, graphical methods and other related topics, with application to problems in the social and natural sciences. *Prerequisite:* Mathematics 11. *Second semester. Three credits.* Mackay Science Hall. Alternates with Mathematics 18. Ayres. (Not given in 1936–1937.)

22. MATHEMATICS FOR STUDENTS OF AGRICULTURE AND BIOLOGICAL SCIENCES. A study of the essentials of algebra, trigonometry, elementary mechanics, statistics, graphical methods, logarithmic paper, and other topics with applications. This course is designed to meet the needs of students in the College of Agriculture, Premedical students, Preforestry students, and other students in the biological sciences. It may be used toward satisfying the science requirement for graduation. Students planning to continue their mathematical work should take Mathematics 14 upon completion of this course. *Second semester. Four credits.* Mackay Science Hall. Wood.

25–26. CALCULUS. A unified course in differential and

integral calculus, with special emphasis upon the applications. This course is required of all engineering students. *Prerequisite:* Mathematics 11, 13, 14 or Mathematics 15, 16. *Both semesters. Three credits each semester.* Mackay Science Hall. The Departmental Staff.

50. 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. Three credits.* Mackay Science Hall. Ayres. (Not given in 1936–1937.)

51. History of Mathematics. Lectures and assigned readings on the history of the mathematical science. Recommended for students preparing to teach mathematics in high school. *First semester. Two credits.* Mackay Science Hall. Wood. (Not given in 1936–1937.)

53. Spherical Trigonometry. A study of the properties of the spherical triangle and methods of solution of triangle problems. Numerous applications from astronomy and navigation will be considered. *Second semester. Two credits.* Mackay Science Hall. Ayres.

55–56. Analytic Mechanics for Engineers. Work in the resolution of forces, moments of 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.* Mackay Science Hall. Wood and Ayres.

60. College Geometry. A study of advanced geometrical topics such as The Nine Point Circle, Ceva's Theorem, etc., using the methods of proof of elementary geometry. Recommended for students preparing to teach mathematics in high school. *Second semester. Two credits.* Mackay Science Hall. Wood.

66. Teaching of Mathematics. See Education 66.

70. Solid Analytical Geometry. A study of the plane, ellipsoid, paraboloid, hyperboloid, and the general equation of the second degree in three dimensional space. *First semester. Two credits.* Mackay Science Hall. Ross.

73–74. Projective Geometry. A synthetic development of the more fundamental projective properties of conic sections, including also an elementary treatment of involutions, anharmonic ratios, and the principle of duality. *Both semesters. Two credits each semester.* Mackay Science Hall. Wood.

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.* Mackay Science Hall. Ayres.

86. Advanced Calculus. A more rigorous study of the differential and integral calculus, with extensive applications to geometrical and physical problems. *Either semester. Three credits.* Mackay Science Hall. Wood. (Not given in 1936–1937.)

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.* Mackay Science Hall. Wood. (Not given in 1936–1937.)

115. Vector Analysis. A study of the Vector notation applied to problems of physics. *Second semester. Three credits.* Mackay Science Hall. Wood. (Not given in 1936–1937.)

129–130. Modern Analytical 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 each semester.* Mackay Science Hall. Wood. (Not given in 1936–1937.)

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.* Mackay Science Hall. Wood.

150. Seminar. Library work and reports on various topics of mathematical interest. *Both semesters. Two credits each semester.* Mackay Science Hall. Wood.

199–200. Thesis Course for Graduate Students. *Six credits.* Mackay Science Hall. Wood and Ayres.

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 Functions of a Real Variable, and Theory of Numbers.

MECHANIC ARTS

College of Engineering

PROFESSOR SIBLEY, HEAD OF DEPARTMENT
INSTRUCTOR RYAN
MR. CARROLL, ASSISTANT

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 and casehardening. *Sophomore year. One or two credits either semester, according to the requirements of the respective departments.* 101 Mechanical Building. Carroll. Fee, $5 per credit.

3. MACHINE SHOP. A basic course in machine work following a definite plan throughout the semester, includes instruction in bench work, lathe, shaper, drill and milling machine. Junior year. *First semester. Two credits.* Mechanical Building. Fee, $5 per credit. Ryan.

5. MACHINE SHOP. Continuation of Mechanic Arts 3, further developing the use of machine tools and permitting the student to substitute projects that are in line with those used in the course. *Second semester. Two credits. Prerequisite:* Mechanic Arts 3. Mechanical Building. Fee, $5 per credit. Ryan.

6. PATTERN AND MOULD MAKING. Instruction is given in making of wood patterns, solid and built up, also dry and green sand cores, segment boxing two and three part flask, and moulding. *Senior year, second semester. One credit.* Fee, $5.

7. MACHINE SHOP. An advanced course in general machine work for students wishing to develop projects in connection with thesis or special work. *Prerequisite:* Mechanic Arts 3. Also for students desiring to fill in a program in which case the work will consist of problems arising in the repair and maintenance of laboratory and shop equipment. *One or two credits, either semester.* Fee, $5 per credit. Mechanical Building. Ryan.

MECHANICAL ENGINEERING

College of Engineering

PROFESSOR SIBLEY, HEAD OF DEPARTMENT
ASSISTANT PROFESSOR AMENS

19-20. MECHANICAL ENGINEERING LITERATURE. A study of current magazine articles, particularly in the Journals of the Engineering Societies. No prerequisite. Required of all Mechanical Engineers. *Both semesters. One-half credit each semester.* Sibley.

21. TECHNICAL REPORT. A systematic write-up of three to four thousand words on some selected or assigned engineering topic. *One credit.* Sibley.

51. KINEMATICS. The kinematics of machinery, showing the laws which govern the velocity of moving parts, the correct forms of gear teeth and the manner of designing trains of mechanism. *Prerequisite:* Physics 1A and 2A, or 3 and 4, and Mathematics 25 and 26. *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. HEAT ENGINES. Steam and internal combustion engines, boilers and power plant auxiliaries, fuels and combustion. This course is arranged to acquaint the student with the design, construction and operation of the mechanical equipment that he will be called upon to use in the laboratory. *Prerequisite:* Physics 3 and 4. *First semester. Three credits.* Electrical Building. Amens.

55-56. THERMODYNAMICS. A study of the thermodynamics of perfect gases, vapors and mixed gases and vapors, their application to gas engines, air compressors, refrigerating machinery, steam engines and turbines. *Prerequisites:* Physics, Chemistry, Mathematics and M. E. 54. *Both semesters. Three credits each semester.* Electrical Building. Sibley.

58. Advanced Machine Design. Balancing inertia forces in moving parts of reciprocating engines. Design of governors, fly-wheels and valve mechanism. Practical problems in machine design may be substituted for the above with the approval of the instructor. *Prerequisite:* Senior standing in Mechanical Engineering. *Second semester. Three credits.* Electrical Building. Sibley.

64. Mechanical Power Laboratory. Operation and testing of steam and internal combustion engines, steam turbines, steam boilers and auxiliaries, water turbines and pumps, flue gas analysis, valve setting, making indicator cards, steam calorimetry. *Prerequisite:* Mechanical Engineering 54. *First semester. Lecture, one hour. Laboratory, two periods. Three credits.* Electrical Building. Amens. Fee, $5.

65. Mechanical Laboratory. Calibration of laboratory equipment. Testing fuels and lubricants, flow of air, fuel analysis. *Prerequisite:* Physics 3 and 4, Mechanical Engineering 54. *Second semester. Lecture, one hour. Laboratory, two periods. Three credits.* Mechanical Building. Sibley. Fee, $5.

66. Mechanical Laboratory. Advanced problems in laboratory practice, such as the design and construction of apparatus. Elective for seniors and graduates. *Either or both semesters. Three to six credits, as arranged.* Sibley or Amens. Fee to be arranged.

74. Industrial Plant Design. A problem and design course for the study of industrial plant layout and organization for production. Elective for Seniors. *Second semester. Two laboratory and one recitation period. Three credits.* Electrical Building. Sibley.

75. Power-Plant Engineering. A study of the principles involved in the design, construction, and operation of water-, steam- and gas-power plants for mills, factories, and electric generating stations. A layout of a plant to meet specified conditions is made in the drawing room. *Prerequisite:* E. E. 51 and 72, M. E. 54 and 64. *First semester. One recitation and two laboratory periods. Three credits.* Sibley.

76. Automotive and Airplane Engines. A brief course in the principles 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 and one laboratory period. Three credits.* Amens.

78. Aerodynamics. An elementary course in the theoretical aspect of aeronautics. Study of aerodynamics, theory of flight, history and development of the art. Laboratory work so far as available equipment permits. *Prerequisite:* Mathematics, Physics, and Mechanics. *First semester. Three credits.* Amens.

80. Thesis. An original design or an investigation intended to give the student a knowledge of research methods in engineering. This course is elective for Seniors and Graduates at the discretion of the instructors in the department. *Second semester. Three credits.* Sibley or Assistants. Laboratory fee of $5 may be required.

METALLURGY

College of Engineering

PROFESSOR PALMER, HEAD OF DEPARTMENT
PROFESSOR CARPENTER
ASSOCIATE PROFESSOR SMYTH

4. Engineering Metallurgy. Lectures and recitations for engineering students on the properties and uses of industrial metals and alloys, metallurgical processes and apparatus, and an introductory course on the metallurgy of iron and steel. *Prerequisite:* Chemistry 6 and Physics 1A or 3. *Second semester. Two credits.* Mackay School of Mines. Smyth.

51. Fire Assaying. Lectures, recitations, and laboratory work in assaying. Methods of assaying, systems of weights used, calculations and problems, equipment of assay laboratories, sampling, chemistry of assaying. The assay of gold and silver ores of the simpler types followed by the assay of difficult ores and metallurgical products. *Prerequisite:* Mineralogy 2, Chemistry 9 and 10. *First semester. Lectures, one hour; laboratory, three periods. Four credits.* Mackay School of Mines. Smyth. Fee, $15. Students who do not complete their laboratory work during the regular periods are required to pay an additional fee to cover the extra cost of such work. This fee will be $1 per laboratory period for each period the furnaces are used plus the cost of any chemicals and supplies used.

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:* Metallurgy 53 and 58 or 54. *Second semester. Lecture, one hour; laboratory, two periods. Three credits.* Mackay School of Mines. Palmer. Fee, $2.50.

58. FERROUS METALLURGY. Lectures and recitations on the principles and practice of producing iron and steel, the properties and uses of the ferrous metals, the iron-carbon diagram, mechanical and heat treatment of steel, and alloy steels. *Prerequisite:* Metallurgy 4. *Second semester. Two credits.* Mackay School of Mines. Smyth.

61. PYRO-METALLURGY NONFERROUS METALS. Lectures and recitations on the smelting or fire methods of extracting the common metals from their ores and refining processes for these metals by fire methods. The principal metals covered will be copper, lead, zinc, mercury and nickel. *Prerequisite:* Mineralogy 1 and Metallurgy 53 and 58. *First semester. Three credits.* Mackay School of Mines. Palmer.

62. 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, molybdenum, platinum, tin, and tungsten. *Prerequisite:* Junior standing. *Second semester. One credit.* Mackay School of Mines. Palmer.

66. ORE DRESSING. Lectures and recitations in ore dressing. Laws of crushing, sizing, and concentration of ores, including flotation. *Prerequisite:* Metallurgy 51 and 58. *Second semester. Lectures, two hours. Two credits.* Mackay School of Mines. Palmer.

68. ORE DRESSING LABORATORY. A laboratory course to accompany Metallurgy 66. This course covers general practice in the use of the various machines used in ore dressing. *Prerequisite:* Chemistry 9 and 10. *Second semester. Laboratory, two periods. Two credits.* Mackay School of Mines. Palmer and Smyth. Fee, $5.

71. HYDRO-METALLURGY. Lectures, recitations, and laboratory exercises on the various hydro-metallurgical methods used in the recovery and refining of the metals gold, silver, copper, lead and zinc. *Prerequisite:* Metallurgy 51 and 66; Chemistry 10. *First semester. Lectures, two hours; laboratory, one period. Three credits.* Mackay School of Mines. Palmer. Fee, $5.

72. ELECTROMETALLURGY. Lectures and recitations on electric smelting and the electrolytic processes involved in the metallurgy of the common and precious metals. *Prerequisite:* Metallurgy 61 and 71. *Second semester. Two credits.* Mackay School of Mines. Palmer.

75. NONMETALLICS. A lecture course on the preparation for market and the marketing of their products of such nonmetallics as cement materials, gypsum, limestone, magnesite, diatomaceous earth, borates, and others that are of importance in Nevada and the Pacific Coast States. *First semester. Two credits.* Mackay School of Mines. Carpenter.

76. PROBLEMS AND SEMINARS. This course covers common technical and economic problems related to the design, operation, and management of metallurgical plants, and a discussion of articles upon metallurgical subjects. Open only to students after they have completed metallurgical subjects to the second semester of the senior year. *Second semester. Two credits.* Mackay School of Mines. Palmer.

79–80. PROJECT. This course will cover special work of a research nature in connection with some problem in ore treatment or metallurgical plant design. *Prerequisite:* Metallurgy 68 and taken with Metallurgy 71. *Both semesters. Two credits.* Mackay School of Mines. Palmer. Deposit to be arranged according to work undertaken.

179–180. A GRADUATE COURSE. *Credits to be arranged.* Mackay School of Mines. Palmer. Fee to be arranged according to work undertaken.

199–200. THESIS. *Six to ten credits total.* Fee to be arranged according to work undertaken.

MILITARY SCIENCE AND TACTICS

PROFESSOR REED, COLONEL, INFANTRY, U. S. ARMY
ASSISTANT PROFESSOR ISBELL, DEML (ROTC), CAPTAIN, INFANTRY, U. S. ARMY, COMMANDANT
INSTRUCTOR HUSTIS, DEML (ROTC), SERGEANT, U. S. ARMY

Requirements for a minor in Military Science: Military 1–2 (2 credits), 3–4 (2 credits), and 12 additional credits in the department, at least 6 of which must be in courses numbered 50 or above.

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. Orientation; the National Defense Act and the R. O. T. C.; obligations of American citizenship; evolution of the military policy of the United States; current international situation; military discipline, courtesies and customs of the service; military sanitation and first-aid; military organization; map reading; leadership (drill and command); the rifle and rifle marksmanship. Required of all first-year men students. *Three hours per week. Both semesters. One credit each semester.*

MILITARY 3–4. Basic course. Second year—Practical and theoretical military history; leadership (drill and command); automatic rifle; characteristics of infantry weapons; musketry; scouting and patrolling; functions of platoon scouts; combat principles of the rifle squad and section in attack, defense, and security. Required of all second-year men students. *Three hours per week. Both semesters. One credit each semester.*

MILITARY 51–52. Advanced course. First year (elective)—Practical and theoretical. Aerial photograph reading; leadership (principles, instructional methods, drill and command); machine guns; howitzer company weapons; automatic pistol; rifle marksmanship (review); combat principles (general); combat principles of the rifle platoon, machine gun platoon, and howitzer company squad, in attack, defense, and security; field fortification. *Five hours per week. Both semesters. First semester, two credits; second semester, three credits.*

MILITARY 53A. Advanced camp course. *Two credits.*

NOTE—Students taking advanced military training 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 receive pay at the rate of $21 per month from the United States Government.

MILITARY 53–54. Advanced course. Second year (elective)—Practical and theoretical. Military history and policy of the United States; military law; company administration and supply; Officers Reserve Corps regulations; leadership (principles, instructional methods, drill and command); tanks; mechanization; combat principles (general); combat principles of the rifle company, machine gun company, and howitzer company platoon, in attack, defense, and security; anti-aircraft defense; defense against chemical warfare; combat intelligence; infantry signal communications. *Five hours per week. Both semesters. First semester, two credits; second semester, three credits.*

MILITARY BAND. Students enrolled in the military department and assigned to the band will receive credit for required military training at the rate of one credit for each semester. Such students are required to attend at least two periods of band practice and one of drill per week, and will attend with the band when required for parades, reviews, and other military ceremonies.

MINING

College of Engineering

DIRECTOR FULTON, HEAD OF DEPARTMENT
PROFESSOR CARPENTER
MR. COUCH

1. INTRODUCTORY MINING. An introductory course for Freshmen engineers who have expressed a preference for the School of Mines course. The subject matter will consist of a general presentation of mining, metallurgic and geologic fundamentals and history, using the museum, library, and laboratories for demonstration purposes, and requiring written work of the students. Mining Freshmen only. *First semester. One credit.* Staff.

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

51. EXCAVATION. Lectures and recitations on the principles and practice of excavation, including earth excavation, rock drills and drilling practice, explosives and blasting practice, quarrying, tunneling, shaft sinking and boring. Stress is placed upon the underlying principles of physics

and chemistry. *Prerequisite:* Physics 3 and 4; Chemistry 5 and 6. *Junior year. First semester. Three credits.* Carpenter.

52. MINE PLANT. Lectures on the principles and practice of underground and surface haulage, hoisting, air compression, mine drainage, ventilation and illumination. Stress is placed upon the underlying principles of physics and mechanics. *Prerequisite:* Physics 3 and 4; Mathematics 55A. *Junior year. Second semester. Three credits.* 101 Mackay School of Mines. Carpenter.

61. MINING METHODS. Lectures and recitations on the prospecting, development, and exploitation of mineral deposits, including underground metal mining methods in detail, with quarrying, coal mining, and placer mining methods in brief. *Prerequisite:* Mining 51 and 52. *Senior year. First semester. Three credits.* Carpenter.

72. MINE ADMINISTRATION. Lectures and recitations on the business, sociology, and laws of mining, including mine examination, organization of staff, problems concerning power, labor and supplies, compensation and accident insurance, welfare work, accidents and their prevention, Federal and State mining laws with mine maps and models. *Prerequisite:* Mining 61. *Senior year. Second semester. Three credits.* Carpenter.

74. MINERAL INDUSTRY ECONOMICS. Lectures and recitations on economic problems of mining and metallurgy and mine accounting, including incorporations and securities, depreciation, depletion, amortization, taxes, assessments and dividends, and laws governing the same, the costs of mining, milling, and marketing, and cost accounting methods. *Prerequisite:* Mining 61. *Senior year. Second semester. Three credits.* Carpenter and Couch.

79–80. MINING PROJECT. Two laboratory periods weekly devoted to individual problems in mining, progressing from those of small properties to specific problems concerning shaft sinking, tunneling, or the like on a large scale, and finally to working of mines based upon those in actual operation in important mining camps. Stress is placed upon amplifying the subject matter of previous mining courses and in the methods of searching for, correlating, and presenting the data gathered and worked out. *Prerequisite:* Mining 51–52. *Both semesters. Two credits each semester.* Carpenter.

179–180. A GRADUATE COURSE. *Credits to be arranged.* Fee to be arranged according to work undertaken.

199 – 200. THESIS. *Six to ten credits total.* Fee to be arranged according to work undertaken.

MODERN LANGUAGES

PROFESSOR CHAPPELLE, HEAD OF DEPARTMENT
PROFESSOR MURGOTTEN
ASSOCIATE PROFESSOR GOTTARDI
INSTRUCTOR KLINE
MRS. FERRIS

Requirements for a minor in French, German, Italian and Spanish: With no admission units, courses 1–2 (10 credits), 3–4 (6 credits), and 2 additional credits in courses numbered 50 or above; with 2 admission units, courses 3–4 (6 credits), and 6 additional credits in courses numbered 50 or above; with 4 admission units, 6 credits in courses numbered 50 or above.

Requirements for a major in French, German, Italian and Spanish: With no admission units, courses 1–2 (10 credits), 3–4 (6 credits), and 10 additional credits in courses numbered 50 or above; with 2 admission units, courses 3–4 (6 credits), and 14 additional credits in courses numbered 50 or above; with 4 admission credits, 16 credits in courses numbered 50 or above.

Students intending later to teach Modern Languages are urged not to restrict their courses to the minimum requirements for a major or a minor in the particular subjects. All such candidates are to confer with the head of the department.

Courses numbered above 50 and announced as offered in any year may not be given in that year unless there are at least seven candidates for the class. Some courses numbered above 50 are given only in alternate years. Consult the printed schedule of classes for the definite offerings any given semester.

In certain instances and by special permission of the head of the department, a given course numbered above 50 may be repeated for credit, provided that the entire content of the course differs from the one given previously under the same number. In such cases the course will be recorded with the catalogue number *plus* A (e. g. French 59–A).

The following courses are recommended but not required for majors and minors in any one of the modern languages: History 5–6.

French

The following courses are recommended, but not required, for majors or minors in French: History 79–80.

1. FIRST YEAR FRENCH. Drill in the essentials of grammar. Elementary composition and conversation. *First*

semester. Five credits. Stewart Hall. Gottardi and Murgotten.

2. First Year French (Continued). Grammar, composition and conversation. Translation of simple prose texts. *Prerequisite:* French 1 or one year of high school French. *Second semester. Five credits.* Stewart Hall. Gottardi and Murgotten.

3–4. Second Year French. Readings from modern French prose writers. A review of grammar. Conversation and composition. *Prerequisite:* French 1–2 or two years of high school French. *Both semesters. Three credits each semester.* Stewart Hall. Chappelle and Murgotten.

3A–4A. The same as French 3–4 with the exception that this class meets only once a week. Intended primarily for teachers in active service in the public schools. *Both semesters. One credit each semester.* Stewart Hall. Chappelle and Murgotten.

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.* Stewart Hall. 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.* Stewart Hall. Murgotten.

55–56. Intermediate French Composition and Conversation. This course should be taken simultaneously with the first year of Junior-Senior reading courses in French. *Prerequisite:* French 3–4. *Both semesters. One credit each semester.* Stewart Hall. Chappelle.

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.* Stewart Hall. Chappelle.

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.* Stewart Hall. Chappelle.

69–70. French Classic Drama. The development of the drama in France with special study of the works of Corneille, Racine, and Molière. *Prerequisite:* French 3–4. *Both semesters. Two credits each semester.* Stewart Hall. Murgotten.

71. Nineteenth Century French Drama. A study of the drama of the nineteenth century with special reference to the romantic school and the works of Victor Hugo. *Prerequisite:* French 3–4. *First semester. Two credits.* Stewart Hall. Murgotten.

72. Contemporary French Drama. A study of French plays of the twentieth century. *Prerequisite:* French 3–4. *Second semester. Two credits.* Stewart Hall. Murgotten.

73–74. Advanced French Composition and Conversation. Includes a study of French epistolary style and commercial correspondence. This course should be taken simultaneously with the second year of Junior-Senior reading courses in French. *Prerequisite:* French 3–4. *Both semesters. One credit each semester.* Stewart Hall.

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.* Stewart Hall. Chappelle.

89–90. French Phonetics. A study of pronunciation on the basis of practical phonetics. This course is especially arranged for prospective teachers of French. *Prerequisite:* Two units of Junior-Senior work. *Both semesters. Two credits each semester.* Stewart Hall. Gottardi.

German

1. First Year German. A systematic study of grammar, elementary composition and conversation. *First semester. Five credits.* Stewart Hall. Chappelle and Murgotten.

2. First Year German (Continued). Grammar and composition. Reading of easy prose and poetry. *Prerequisite:* German 1, or one year of high school German. *Second semester. Five credits.* Stewart Hall. Chappelle and Murgotten.

3–4. Intermediate German. Grammar review. Reading of German short stories, with exercises in conversation and composition. *Prerequisite:* German 1–2, or two years of high school German. *Both semesters. Three credits each semester.* Stewart Hall. Chappelle and Murgotten.

3A–4A. The same as German 3–4, except that this class meets only once a week. Intended primarily for teachers in active service in the public schools and for students from other departments who need this course to help fulfill their language requirements. *Both semesters. One credit each semester.* Stewart Hall. Chappelle.

7–8. Elementary Prescientific German. A special course open only to students working for the degree of B.S. in Chemistry, Premedical students, Engineering students and students in Agriculture or Home Economics. Fundamentals of grammar and reading of easy German texts. This course may not be offered towards a major or a minor in German. *Both semesters. Three credits each semester.* Stewart Hall.

9–10. Intermediate Prescientific German. A special course open to the same groups of students as German 7–8. Grammar review and reading of magazine articles and other texts dealing with the fields of science in which the class is most interested. *Prerequisite:* German 1–2 or German 7–8. *Both semesters. Three credits each semester.* Stewart Hall.

51–52. The German Novel. Rapid reading of masterpieces of German fiction: Scheffel, Baumbach, Sudermann, Thomas Mann. *Prerequisite:* German 3–4. *Both semesters. Two credits each semester.* Stewart Hall. Murgotten.

57–58. General Survey of German Literature. The history of German literature with detailed study of special periods. Assigned readings and reports on the works read. *Prerequisite:* Four credits of Junior-Senior work. *Both semesters. Two credits each semester.* Stewart Hall. Chappelle.

59–60. Scientific German. Readings from German scientific works, with special emphasis on Chemistry and Physics. This course is particularly recommended to premedical students and to those who intend to specialize in any one of the scientific fields. *Prerequisite:* German 3. *Both semesters. Two credits each semester.* Stewart Hall. Chappelle.

69–70. German Classics. Reading and technical study of representative works of Lessing, Schiller, and Goethe. *Prerequisite:* German 3–4. *Both semesters. Two credits each semester.* Stewart Hall. Chappelle.

79–80. Advanced Composition. A study of German epistolary style, business correspondence, free composition. This course should be taken simultaneously with the Junior-Senior reading courses. *Both semesters. One credit each semester.* Stewart Hall. Chappelle.

Italian

1. First-Year Italian. Elementary grammar, composition, and conversation. Reading of modern Italian prose. *First semester. Five credits.* Stewart Hall. Gottardi.

2. First-Year Italian (Continued). Grammar, composition and conversation. Translation of modern Italian prose and poetry. *Prerequisite:* Italian 1 or one year of high school Italian. *Second semester. Five credits.* Stewart Hall. Gottardi.

3–4. Intermediate Italian. Grammar review. Reading of prose and poetry. Exercises in conversation and composition. *Prerequisite:* Italian 1–2, or two years of high-school Italian. *Both semesters. Three credits each semester.* Stewart Hall. Gottardi.

51–52. The Italian Novel. Rapid reading of masterpieces of modern Italian fiction: Manzoni, Fogazzaro, Verga, etc. *Prerequisite:* Italian 3–4. *Both semesters. Two credits each semester.* Stewart Hall. Gottardi.

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 3–4. *Both semesters. Two credits each semester.* Stewart Hall.

55–56. Intermediate Composition. *Prerequisite:* Italian 3–4. *Both semesters. One credit each semester.* Stewart Hall.

Spanish

The following courses are recommended, but not required, for majors or minors in Spanish: History 59–60.

1. First Year Spanish. Drill in the essentials of grammar. Elementary composition and conversation. *First semester. Five credits.* Stewart Hall. Kline.

2. First Year Spanish (*Continued*). Grammar, composition and conversation. Translation of simple prose and poetry. *Prerequisite:* Spanish 1 or one year of high school Spanish. *Second semester. Five credits.* Stewart Hall. Kline.

3–4. Second Year Spanish. Readings from modern Spanish writers. A review of grammar. Conversation and composition. *Prerequisite:* Spanish 1–2 or two years of high school Spanish. *Both semesters. Three credits each semester.* Stewart Hall. Gottardi and Kline.

3A–4A. The same as Spanish 3–4 with the exception that this class meets only once a week. Intended primarily for teachers in active service in the public schools. *Both semesters. One credit each semester.* Stewart Hall. Gottardi and Kline.

51–52. The Modern Spanish Novel. Rapid reading of masterpieces of Spanish fiction: Galdós; Valdés; Ibáñez; etc. *Prerequisite:* Spanish 3–4. *Both semesters. Two credits each semester.* Stewart Hall.

53. Commercial and Journalistic Spanish. Readings dealing primarily with Spanish-American social and economic conditions. *Prerequisite:* Spanish 3–4. *First semester. Two credits.* Stewart Hall. Kline.

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 3–4. *Both semesters. One credit each semester.* Stewart Hall. Kline.

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.* Stewart Hall.

67–68. Early Spanish Novel. Reading of Spanish prose of the Sixteenth, Seventeenth and Eighteenth Centuries. A study of novelistic movements. Montalvo, Montemayor, Cervantes, Inevedo. Collateral reading. *Both semesters. Two credits each semester.* Stewart Hall.

69–70. Modern Spanish Drama. A study of Spanish dramatic literature from the Golden Age to the Twentieth Century. *Prerequisite:* Spanish 3–4. *Both semesters. Two credits each semester.* Stewart Hall.

79–80. Advanced Spanish Prose Composition and Conversation. This course should be taken simultaneously with the second year of Junior-Senior reading courses in Spanish. *Prerequisite: Spanish* 3–4. *Both semesters. One credit each semester.* Stewart Hall. Murgotten.

81–82. Spanish Classic Drama. Literature of the Sixteenth and Seventeenth Centuries—Lope de Vega; Tirso de Molina; etc. *Prerequisite:* Four credits Junior-Senior work. *Both semesters. Two credits each semester.* Stewart Hall.

MUSIC

PROFESSOR POST, HEAD OF DEPARTMENT

Requirements for a minor in Music: 1–2 (2 credits), 5 (2 credits), 10 (2 credits), 11–12 (2 credits), 50–51 (6 credits), 54–55 (2 credits, 57 (2 credits).

1–2. Music Reading and Ear Training (for elementary teachers and students preparing for Harmony). Learning to read by "sol-fa" system of simple unison and two-part folk songs in all keys and common rhythms. Notation, terminology, intervals, scales, and a listening experience with selected music literature contained in the library of phonograph records. *Both semesters. One credit each semester.* 204 Education Building. Post.

5. See Education 21.

10. Appreciation of Music (open to all University students. Nonenrolled listeners invited but visitor cards must be obtained. No previous training necessary). Content of music as found in representative literature from the Greek period to the present time, giving a brief chronological view of the evolution of music. Training in observation of the elements of music and in musical form. Criticism, current concerts, recitals in the lecture hours and the phonograph provide material for study. The library contains about one thousand records, two hundred fifty scores and many reference books. *First semester. Two credits.* 204 Education Building. Post.

11–12A. Women's Division, Campus Choral Club. Open to all women students. Membership limited to those who have been examined and approved by the Director. Representative selections from the best musical literature will be studied and produced in one or more public concerts. *Two semesters. One credit each semester.* 204 Education Building. Post.

11–12A. Men's Division, Campus Choral Club. Open to all men students. Membership limited to those who have been examined and approved by the Director. Representative selections from the best musical literature will be studied and produced in one or more public concerts. *Two semesters. One credit each semester.* 204 Education Building. Post.

15–16A. University and Community Little Symphony Orchestra. Open to all men and women students who play orchestral instruments, subject to examination and approval of the Director. Regular rehearsal is held each week and several public concerts are given during the year. Programs are made up of representative classical works of great composers of all periods. *Two semesters. One-half credit each.* 204 Education Building. Post.

17–18. Band. (See under Military for a description of the requirements and credits for men assigned to the Band as a substitute for Military.) University students, both men and women are eligible for membership in the University Band. The schedule calls for appearances at civic and university parades, athletic contests, rallies, and an annual spring concert. One out-of-town trip with the football team is usually made each year. *Two semesters. One credit each semester.* 204 Education Building. Post.

50–51. Harmony (open to all students who have had Music 1 and 2 or the equivalent). Study of scales, intervals, fundamental triads, seventh chords, in the major and minor modes. Ear training, keyboard drill, simple analysis, harmonization of melodies. Some original work. *Two semesters. Three credits each.* 204 Education Building. Post.

52–53. Advanced Harmony. Study of secondary sevenths, ninth chords, altered chords, modulation, suspensions and passing tones, analysis, original work. Continued ear training. Open to all students who have had Music 50–51, or the equivalent. *Two semesters. Three credits each.* 204 Education Building. Post.

54–55 (A and B). Campus Choral Club. For description, see Music 11 and 12, A and B. *Prerequisite:* Music 11–12. *Two semesters. One credit each semester.* 204 Education Building. Post.

57. History of Music (open to all students; no technical knowledge required). The general history of music, considered from the standpoint of its evolution as a part of the development of civilization. Lecture course with collateral reading. Illustrations from representative works in the record library. *Second semester. Two credits.* 204 Education Building. Post.

59–60A. University and Community Little Symphony Orchestra. For description see Music 15–16A. *Prerequisite:* Music 15–16A. *Two semesters. One-half credit each.* 204 Education Building. Post.

63–64. Band. For general description, see Music 17–18. *Prerequisite:* Music 17–18. Post.

65. See Education 65.

ORIENTATION

1. Engineering Orientation. The course is designed to lay before the Freshmen engineering students upon entering the University the difficulties and rewards of college life and of engineering as a life profession.

One period a week deals with the University requirements for entrance, for residence, for graduation and for advanced degrees, stressing the need of and best methods of acquiring a good scholarship record, bringing out the benefits thereof, and kindred subjects.

One period a week is given to lectures by the engineering faculty on the course of study of each engineering school, the nature of work its graduates enter, and the drawbacks and possibilities of that branch of engineering, with the purpose of the lectures being to aid or confirm the student in his choice of engineering school. *First semester. Two lectures a week. One credit. Required of all Engineering Freshmen.* Carpenter and Engineering Faculty.

2. General Orientation. A course designed to acquaint the students entering the University with the rules and customs of the college community and the opportunities for study offered by the different schools and departments of the University. During the first part of the semester, student body rules and University requirements will be explained; methods for study, use of library, and various University facilities will be discussed. Later in the semester, some elementary outlines of the content of the several fields

of knowledge will be offered, and finally, aid will be given in the methods of vocational self-guidance. *First semester. Two periods a week. One credit.* Required of all non-engineering Freshmen or of all Freshmen.

PHILOSOPHY

PROFESSOR THOMPSON, HEAD OF DEPARTMENT

Requirements for a major in Philosophy: Psychology 5 (3 credits), Philosophy 7 or 8 (3 credits), and 21 (3 credits), and 12 credits in the department in courses numbered 50 or above.

Requirements for a minor in Philosophy: Psychology 5 (3 credits), Philosophy 7 or 8 (3 credits), and 21 (3 credits), and 6 credits in the department in courses numbered 50 or above.

The following courses are recommended, but not required, for majors and minors in Philosophy: Psychology 51 and 62, Economics 1 and 2, Sociology 81, and Political Science 1 and 2.

1. Introduction to Philosophy. A brief study of the problems of philosophy with the solutions suggested by the various schools. Designed both for the student who wishes a perspective for further work in philosophy, and for the student who desires a general knowledge of the scope and methods of philosophy. *No prerequisite. Either semester. Two credits.* 202 Morrill Hall. Thompson.

7. Deductive Logic. Terms, definition, division, syllogism and fallacies. Text, lectures and exercises. *No prerequisite. First semester. Three credits.* 202 Morrill Hall. 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.* 202 Morrill Hall. 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.* 202 Morrill Hall. 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.* 202 Morrill Hall. 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.* 202 Morrill Hall. 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.* 202 Morrill Hall. Thompson. (Not given in 1936–1937.)

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.* 202 Morrill Hall. Thompson. (Not given in 1936–1937.)

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. 202 Morrill Hall. 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 and Psychology 5. *First semester. Two to three credits according to work done.* 202 Morrill Hall. 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.* 202 Morrill Hall. 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.* 202 Morrill Hall. 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.* 202 Morrill Hall. Thompson.

PHYSICAL EDUCATION AND ATHLETICS

Men

PROFESSOR MARTIE, HEAD OF DEPARTMENT
ASSOCIATE PROFESSOR SCRANTON
ASSISTANT PROFESSOR DASHIELL
ASSISTANT PROFESSOR COLEMAN

Requirements for a minor in Physical Education: Courses 1-2 (1 credit), 3-4 (1 credit), or equivalent, 9-10 (2 credits), and 10 credits in the department in courses numbered 50 or above. Participation in at least one major sport. In meeting the College requirement in Science and Mathematics, Zoology 7 and 8 is strongly recommended.

1. Developmental Exercises. Physical examinations are required at the beginning of the semester. Strength tests are given at beginning and again at end of semester. Practical work consists in Mass Athletics; games selected with a view of developing alertness, coordination, muscular control, vigor and rhythm. When the weather permits, the work is done out of doors. *Freshman year.* (Required.) *First semester. Two hours per week. One-half credit.*

2. Developmental Exercises. Continuation of course 1 with addition of calisthenics and light apparatus. *Second semester. One-half credit.*

3. Advanced Exercises. Strength tests will be continued as in Freshman year. Practical work consists in mat work, tumbling, heavy apparatus using long and short horse and buck. *Sophomore year.* (Required.) *First semester. Two hours per week. One-half credit.*

4. Advanced Exercises. Continuation of course 3. Heavy apparatus consisting of work with parallel bar, low and high horizontal bars, ladder and stall bar. *Second semester. One-half credit.*

By obtaining consent of the Director of the Department a student may elect any of the following sports as a substitute for the practical work in courses 1, 2, 3, and 4: Football, basket ball, track, tennis, volley ball, cross country and hand ball. *First semester. Two hours per week. One-half credit.*

5-8. Special Corrective Exercises. This course is designed for all Freshmen and Sophomores whose physical examinations show they are unfitted to take courses 1, 2, 3, and 4. *One-half credit for each semester's work up to and including four semesters.* Martie.

9. Advanced Work (paralleling courses 3 and 4.) *Aim:* To develop squad leaders and to assist men to qualify for a state certificate to teach physical education in high schools. *First semester. Three hours per week. One hour credit.* Martie.

10. Continuation of Course 9. *Second semester. Three hours per week. One hour credit.* Martie.

51. Football in Theory and Practice. A course of lectures and practical demonstrations for those who may wish to coach, or for players who are out for the varsity or for those who are interested in and wish a more intimate knowledge of America's greatest game. Open only to Juniors or Seniors who have had two or more years' college experience in this sport. *First semester. One lecture per week and one hour laboratory. Two credits.* Not given unless eight or more are enrolled. Dashiell.

52. Basket Ball in Theory and Practice. A course of lectures and practical demonstrations in America's leading winter indoor sport. *Second semester. One lecture and one hour laboratory per week. Two credits.* The same conditions for enrollment must be met as in course 51. Martie.

53. Treatment of Athletic Injuries. This is a course in first aid with special emphasis on common athletic injuries. It will include the various uses of tape, bandages, splints, etc. Time will be given to the study of the prevention of injuries such as sprains, charley horse, tackle shoulder, blood poison, blisters, etc., as well as treatment for same. *Three periods per week. Two credits. First semester.*

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

55. Playground. *Prerequisite:* Physical Education 53. A study of playground methods, apparatus, and organization. Special attention is given to group games for all ages. Also to the "Gang" problem as related to playground. *Three periods per week. Two credits. First semester.* Martie.

56. Anthropometry. This is a course in physical

measurements and methods of detecting physical defects. It will include practical use of charts in connection with physical development. *Three periods per week. Two credits. Second semester.* Martie.

57. Officiating Major Sports. A careful study of the rules of football, basket ball, and track, with interpretations, methods of officiating, and characteristics of officials. *Three periods per week. Two credits. First semester.* Coleman.

58. See Education 64.

59. Corrective Gymnastics. The work will consist of lectures covering the biological, sociological, and physiological aspect of the causes of functional and structural defects. Practical work will include the use of apparatus and the adaptation of various forms of exercises to the needs of the individual.

(a) Improving functional organic capacity.
(b) Correction of physical defects.
(c) Measurements of motor ability.

Three periods per week. Two credits. First semester. Martie.

PHYSICAL EDUCATION

Women

PROFESSOR SAMETH, HEAD OF DEPARTMENT
MRS. SIMAS, ASSISTANT PROFESSOR
MISS .....

Requirements for a minor in Physical Education: It is recommended, but not required, that students desiring a minor in Physical Education fulfill their science requirement in Chemistry. It is also recommended that students interested in taking advanced dancing, take Music 10 or its equivalent. Courses—Physical Education 1–2 (2 credits), 3–4 (1 credit), 10 (1 credit), 23 (1 credit), 24 (2 credits), 31–32 (2 credits), 55 (3 credits), 56 (2 credits), 59–60 (4 credits), and two years of participation in Athletics.

1, 2, 3, 4. Courses Required for Graduation. Numbered in the order in which they are required to be taken. One and two have each one unit of credit (3 periods); three and four each have one-half unit of credit (2 periods). One semester of A and one of C are required of all students taking Physical Education. Further work in Dancing or Organized Games may be had but is not required. No more than two semesters of Dancing and two of Games will be accepted in fulfilling the requirements.

A—Dancing (including clogging, interpretation, etc.).

B — Gymnastics (including marching, general posture training, etc.).

C—Organized Games (relays and simple games leading up to field ball, soccer, indoor baseball, etc.).

D—Stunts and Tumbling.

E—General Work (required of students in Education, consisting of a combination of the preceding. It is recommended, but not required, that minors in Physical Education take 3E or 4E.)

F—Swimming. (Fee, $5 per semester.)

5–6. Individual or Adapted Group Gymnastics. Planned to meet specific needs such as correction for feet, abdomen, spine, etc. Recommended for all first and second semester students who, upon examination, show a need of it. *Four 20-minute periods a week. One credit each semester.* Gymnasium.

7–8. Continuation of P. E. 5–6; also additional work in gymnastics, stunts, tumbling and swimming for those who have completed 1, 2, 3 and 4.

10. Folk Dancing for Elementary Grades and High School. Required of students in Education and of Physical Education minors. The object of this course is to give those who intend to teach, singing games and folk dances suitable for use in the grades. Most of the semester will be used for practical work. *Prerequisite:* Physical Education 1–2 or the equivalent. *Two periods. One semester. One credit.* Gymnasium.

23. First-Aid and Health. A. Emergencies and First Aid. B. Health in the school, home and community. *First semester. One laboratory period. One credit.* Gymnasium.

24. Principles of Physical Education. Their development in relation to general education, health education, recreation. Organization and leadership of recreational activities as applied to after-school programs, playdays, camping, clubs, etc. *Second semester. Two periods. Two credits.* Gymnasium.

31–32. Dancing. Dancing, including clog, folk and interpretation. Open to all who have had the equivalent of Physical Education 1–2. *Three periods. Both semesters. One credit each semester.* Gymnasium.

51. Methods of Teaching Swimming. One lecture and one laboratory. *Prerequisites:* P.E. 23, and an American Red Cross Life Saving Certificate. *Either semester. Two credits.* (For not more than six nor less than four students.) Gymnasium.

53–54. Advanced Dancing. A continuation of Physical Education 31–32. This course will include the construction of at least two dances. *Three periods. Both semesters. One credit each semester.* Gymnasium.

55. Applied Anatomy and Physiology of the Neuromuscular System. The chief object of this course is to familiarize the student with the mechanism and function of the human body, dealing particularly with the heart, lungs, shoulder, girdle, spine, abdomen, and feet, so that the student will be prepared to study intelligently cases of round shoulders, spinal curvature, flat feet, and the effects of fatigue. *Prerequisite:* Physical Education 1 and 2, and Home Economics 33. *Three periods. First semester. Three credits.* Gymnasium. (Not offered unless there is a registration of eight students.)

56. Reconstructive Physical Education. A study of the structure and function of the neuromuscular system (including circulation and respiration), in their relation to growth, development and physical activity. Students will be given the opportunity to prescribe exercises for students taking Physical Education 5–6, 7–8. *Prerequisite:* Physical Education 55. *Three periods. Second semester. Two credits.* Gymnasium. (Not offered unless there is a registration of eight students.)

59–60. Theory and Practice of Directing Team and Individual Sports. This course includes a study of the essentials of the technic and game forms leading up to soccer, hockey, volleyball, basketball, baseball, archery and tennis. Opportunity will be given for actual practice in teaching and officiating. *Prerequisite:* At least two years' participation in college athletics. *Two lecture periods per week; two laboratory periods per week. Both semesters. Two credits each semester.* Gymnasium.

101–102. Problems in Health and Physical Education. Experimental study open only to seniors or graduate students. Where the study is made in the field of Health Education the student must also have had the equivalent of a minor in Hygiene or Zoology. *Two to five credits.*

Recreation. All women who are registered for Physical Education courses, or who have completed the Freshman-Sophomore requirement in Physical Education, may receive instruction and participate in all activities sponsored by the Women's Athletic Association. (See page 76.) In addition to these activities *all* classes in floor work or dancing are open to any who wish to attend *without* University credit. The only requirements for these activities are physical fitness and regular attendance.

PHYSICS

PROFESSOR HARTMAN, HEAD OF DEPARTMENT
PROFESSOR LEIFSON
ASSOCIATE PROFESSOR BLAIR

Requirements for a minor in Physics: Physics 53–54 (10 credits), 55–56 (6 credits), and 2 additional units in the department.

Requirements for a major in Physics: Physics 53–54 (10 credits), 55–56 (6 credits), and 6 additional units in 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 and agriculture. 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.* Mackay Science Hall. Blair and Leifson.

1b–2b. General Physics Laboratory. A laboratory course to make the student an intelligent observer of medicine and agriculture. To accompany Physics 1a-2a. Experimental work, largely quantitative in character and designed to illustrate fundamental physical principles and to develop skill and accuracy in the methods of physical measurement. No credit for either semester will be given unless accompanied by the corresponding course in Physics 1a-2a. *Prerequisite:* Plane Geometry. A knowledge of trigonometry is desirable. *Both semesters. One credit each semester.* Mackay Science Hall. Blair and Leifson. 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, 15 and 16. *Both semesters. Five credits each semester.* Mackay Science Hall. 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, 15 and 16. *Both semesters. Credits to be arranged, with a maximum of six credits for the course.* Mackay Science Hall. Blair and Leifson. 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 objects of the course is to make the student an intelligent observer of the more common astronomical phenomena. Descriptive rather than mathematical in character. Not open to Freshmen and not accepted as part of Freshmen science requirement. *Either semester. Three credits. Two scheduled periods and one evening hour per week to be arranged.* Mackay Science Hall. 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.* Mackay Science Hall. Blair. Fee, $3.

24. PRACTICAL CALCULATION. Graphical methods of determining the relationship between physical quantities. The adjustment of graphs to increase the accuracy of computed results. Practice in the arrangement of logarithmic calculation so that the minimum amount of labor is involved in the solution of complicated equations. Differential correction of results. Interpolation and the use of interpolation formula. Computation of probable error and estimation of accuracy of data and results. *Prerequisite:* Differential Calculus. *Second semester. One credit. One three-hour computing period per week.* Mackay Science Hall. Blair.

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. *Both semesters. Five credits each semester.* Mackay Science Hall. 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. *Both semesters. Credits to be arranged, with six credits as maximum for the course.* Mackay Science Hall. Blair and Leifson. 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 reports. *Prerequisite:* Physics 53–54 and 55–56. *Either semester. One or two credits per semester.* Mackay Science Hall. Hartman and Leifson. Fee, $3.

59–60. HEAT AND THERMODYNAMICS. Lectures and recitations accompanied by experimental work of a quantitative character. This course, together with Physics 61–62, is introductory to Mathematical Physics. Many of the more difficult subjects merely touched upon in Physics 1a–2a, 1b–2b, or 3–4, will be fully treated. (Alternates with Physics 61–62.) *Prerequisite:* Physics 1a–2a, 1b–2b, or 53–54 and 55–56, and Mathematics 14, 25, and 26. *Both semesters. Two credits each semester.* Mackay Science Hall. Hartman.

61–62. LIGHT AND PHYSICAL OPTICS. Lectures: Experimental illustration of selected topics in light, including discussion of the corpuscular and wave theories of light, the restricted theory of relativity, lenses, mirrors and prisms, prism spectra, Doppler's principle and its applications, diffraction, interference, the theory of the grating, double refraction and polarization. *Prerequisite:* Physics 53–54 and 55–56; Mathematics 14, 25, and 26. *Both semesters. Two credits each semester.* Mackay Science Hall. Blair.

63. PHYSICAL OPTICS. Laboratory exercises in connection with course 61–62. *First semester. Two credits.* Mackay Science Hall. Hartman, Blair and Leifson. 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 53–54, and 55–56. *Both semesters. One credit.* Mackay Science Hall. Hartman.

68. Electric Lighting. The application of physical principles to the various problems of electric lighting, photometry, and miscellaneous applications of electricity. *Prerequisite:* Physics 53–54 and 55–56, and Mathematics 14, 25, and 26. *Second semester. Two credits.* Mackay Science Hall. Hartman.

71–72. Electrical Theory of Matter. Lectures and experimental illustrations. Discussion of important topics in the fields of radiation and the structure of atoms and molecules. Introduction to quantum mechanics. *Prerequisite:* General Physics, Integral and Differential Calculus. *Two credits each semester.* Mackay Science Hall. Leifson.

73–74. Electromagnetic Theory. Introduction to the mathematical theory of electricity and magnetism. Solution of problems by exact reasoning from fundamental principles. *Prerequisite:* General Physics, Differential and Integral Calculus. *Either semester. Two credits per semester.* Mackay Science Hall. Leifson.

75–76. Glassblowing. A laboratory course of instruction in methods of making simple glass apparatus. *Either semester. One credit.* Mackay Science Hall. Leifson. Fee, $5.

77–78. Thermionic Vacuum Tubes. A laboratory course of selected problems involving the determination of constants of vacuum tubes and vacuum tube circuits. One hour each week will be devoted to discussion and reports. *Prerequisite:* Physics 3–4–5–6 (or the equivalent), Differential and Integral Calculus. *Either semester. Two credits per semester.* Mackay Science Hall. Leifson. Fee, $3.

101–102. Mathematical Physics. An introduction to the more advanced mathematical analysis as applied to general physical problems. *Prerequisite:* Physics 53–54, 55–56, 57–58, and 59–60, and Mathematics 14, 25, 26, and 85. *Both semesters. One credit each semester.* Mackay Science Hall. Hartman.

103–104. Thesis Work, and all special laboratory work not in the courses announced above. *Both semesters. Credits to be arranged.* Mackay Science Hall. Hartman.

PSYCHOLOGY

PROFESSOR YOUNG, HEAD OF DEPARTMENT
ASSISTANT PROFESSOR IRWIN

Requirements for a minor in Psychology: Psychology 5 (3 credits), 10 (2 credits), 62 (3 credits), and 10 additional credits in the department, at least 3 of which must be in courses numbered 50 or above.

Requirements for a major in Psychology: Philosophy 1 (2 credits), Zoology 55 (2 credits), Sociology 71 (3 credits), Psychology 5 (3 credits), 51 (3 credits), 60 (2 credits), 62 (3 credits), 63 (2 credits), and 6 additional credits in the department, at least 2 of which must be in courses numbered 50 or above.

2. Human Nature. A birdseye view of man's instincts, capacities and mental traits. The laws of learning and habit formation are emphasized. The principal aims of the course are: (1) To furnish a basis for the development of an effective method of study; (2) to present the principles that should be recognized in the conscious building of character; and (3) to develop greater social sympathy and understanding. This course is open to Freshmen. *No prerequisite. Second semester. Two credits.* Education Building.

5. General Psychology. An introductory course dealing with forms and laws of human behavior and consciousness. Lectures, prescribed readings, term paper. Not open to Freshmen. *Prerequisite to all other courses in the department except Psychology 2. Either semester. Three credits.* Education Building.

6. Elementary Educational Psychology. A consideration of the applications of psychology to educational problems. Required of normal students and four-year students seeking the high school teacher's diploma. *Prerequisite:* Psychology 5. *Second semester. Three 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. *Prerequisite:* Psychology 5. *Second semester. Two credits.* Education Building.

14. Applied Psychology. A general course in the applications of psychology: Psychology of vocational guidance, personal efficiency, scientific management, social work, propaganda and public opinion, law, medicine, athletics, business.

art. *Prerequisite:* Psychology 5. *Second semester, alternate years, starting 1934–1935. Two credits.*

40. MENTAL HYGIENE. A consideration of the principles of psychology in their relationship to mental health and efficiency. *Prerequisite:* Psychology 5. *Second semester. Three credits.*

51. SOCIAL PSYCHOLOGY. A study of the applications of psychology to the social relations of the individual and the group life of society: Interaction of individual and social factors in the formation of personality, leadership, propaganda, audiences, communities, nations, crowds, amusements, personality problems, etc. *Prerequisite:* Psychology 5. *First semester. Three credits.*

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. *First semester. Three credits.* Education Building.

57. PSYCHOLOGY OF ADVERTISING. An intensive study of the psychological laws which are basic in all effective advertising. *Prerequisite:* Psychology 5. *First semester, alternate years, starting 1935–1936. Two credits.*

59. TESTS OF MENTALITY, PERSONALITY, AND VOCATIONAL APTITUDE. Lectures, practice, readings. Description, demonstration, and training in the construction, use, and interpretation of standard tests. Special attention will be given to test uses for school purposes, industrial and personnel practice, clinical diagnosis, vocational guidance, social service work, etc. *First semester. Two credits. Alternate years.* (Given 1936–1937.)

60. COMPARATIVE PSYCHOLOGY. The genetic history of consciousness in animals, savages and civilized human beings. *Prerequisite:* Psychology 5. *Second semester. Two credits.*

61. BUSINESS PSYCHOLOGY. A discussion and illustration of the mental laws upon which efficient buying, selling, advertising, and management of men are based. *Prerequisite:* Psychology 5. *First semester, alternate years, beginning 1934–1935. Two credits.*

62. EXPERIMENTAL PSYCHOLOGY. A laboratory course in the application of scientific methods to the study of mental processes. Lectures, assigned readings, and laboratory. *Prerequisite:* Psychology 5. *Second semester. Three credits.* Education Building.

63. ADVANCED PSYCHOLOGY. An intensive study of selected problems. Lectures, readings and a term paper. *Prerequisite:* Psychology 5. *First semester. Two credits.* Education Building.

64. INDUSTRIAL PSYCHOLOGY. Application of the principles of psychology to the problems of personnel management, vocational selection, training the worker, fatigue, monotony, accident prevention, morale, leadership, strikes, and emotional and social adjustment of the worker. *Prerequisite:* Psychology 5 and a second course in Psychology. *Second semester, alternate years, starting 1935–1936. Two credits.*

65. CRIMINAL AND LEGAL PSYCHOLOGY. The individual and social factors of crime and legal relationships, with special emphasis on juvenile delinquency. Problems of the lawyer, educator, and social worker are considered. A study is made of criminal personality and the nature, development, prevention, detection, and treatment of crime and the criminal. Field trips will be taken. *Prerequisite:* Psychology 5. *First semester, alternate years, starting 1933–1934. Two credits.*

70. MARRIAGE, HOMEMAKING AND DIVORCE. A presentation of the psychological principles involved in these three types of social adjustment. Open to Juniors, Seniors and Graduates who have had General Psychology. *Second semester. Two credits.*

102. RESEARCH IN PSYCHOLOGY. The thesis subject may be chosen from any field of psychology in which the student has had at least one advanced course. For Graduate students and Seniors. *Either semester. Two credits.*

AFFILIATED ORGANIZATIONS

1. AGRICULTURAL EXPERIMENT STATION
2. AGRICULTURAL EXTENSION DEPARTMENT
3. THE STATE ANALYTICAL LABORATORY
4. THE STATE BUREAU OF MINES
5. THE STATE HYGIENIC LABORATORY
6. LABORATORY FOR PURE FOOD AND DRUGS AND WEIGHTS AND MEASURES
7. THE STATE VETERINARY CONTROL SERVICE
8. 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, Entomology.
Golamae Johnson, Librarian and Secretary to Director.
Charles E. Fleming, B.S.A., Range Management.
Chester A. Brennen, B.A., Economist in Range Management.
Grant H. Smith, Jr., B.S., Assistant in Range Management.
Martha R. Bruce, Statistician in Range Management.
Andrew Young, Assistant in Range Management.
Edward Records, V.M.D., Veterinary Science.
Lyman R. Vawter, D.V.M., M.S., Associate in Veterinary Science.
Alberta Machen, Clerk in Veterinary Science.
M. R. Miller, M.S., Chemistry.
Kerby Stoddard, B.S., Fellow in Chemistry.
Robert Stewart, Ph.D., Soils Research.
V. E. Spencer, M.S., Associate in Soils Research.
S. Allan Lough, Ph.D., Assistant in Soils Research.
George Hardman, M.S., Irrigation.
F. B. Headley, Farm Development.
Cruz Venstrom, B.S., Assistant in Farm Development.
Louis Titus, M.S., Assistant in Farm Accounting.
Mabel Connor, B.A., Statistician in Farm Development.
James Edward Church, Jr., Ph.D., Meteorology.
Carl Elges, M.S., Assistant in Meteorology.

Under provisions of the Hatch Act, approved March 2, 1887, the Agricultural Experiment Station was organized in December of that year. From the Hatch Fund the Experiment Station receives $15,000 annually, from the Adams Fund, created by the Adams Act of 1906, it receives a like amount and from the Purnell Fund, created by the Purnell Act, approved February 25, 1925, it receives $60,000 annually. In addition, for the fiscal year 1935–1936, it received $615.16 from the Federal Bankhead-Jones Fund. The total of these Federal appropriations for the current fiscal year will be $90,615.16. None of these funds can be applied to teaching or to the work of Agricultural Extension, because the object of all these funds is the investigation by scientific methods of problems in the agricultural industry.

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

IV. The problems of small farm development in Nevada.

V. Economic problems in the Nevada cattle industry.

For 1936–1937 the active project list of the Station is as follows:

RANGE MANAGEMENT—

Project 22—Adams Fund. *Poisonous Range Plants.* 1916–Continuous. Project Leader, C. E. Fleming, assisted by M. R. Miller, Dr. L. R. Vawter and Andrew Young.

Project 24—Hatch Fund. *Methods of Producing More and Better Lambs in Nevada Range Flocks.* 1919–Continuous. Project Leader, C. E. Fleming.

Project 26—Hatch Fund. *Feeding and Finishing Range Ewes and Lambs.* 1920–Continuous. Project Leader, C. E. Fleming.

Project 31—Purnell Fund. *Studies of the Economics of Cattle Production under Nevada Ranch and Range Conditions.* 1927–Continuous. Project Leader, C. A. Brennen, assisted by C. E. Fleming, Grant Smith and Martha Bruce.

Project 45—Purnell Fund. *Development of a Rotation Paddock System of Grazing on Irrigated Meadows by Range Flocks of Sheep.* Reno, 1920–Continuous; Elko, 1934–Continuous. Project Leader, C. E. Fleming, assisted by C. A. Brennen.

Project 52—Bankhead-Jones Fund. *Annual Brome Grasses as Invaders of Sheep and Cattle Ranges in Nevada.* 1936–Continuous. Project Leader, C. E. Fleming, assisted by Departments of Veterinary Science, Chemistry and Soils.

METEOROLOGY—

Project 15—Adams Fund. *Timber and Snow Studies and Snow Surveying.* 1932–Continuous. Project Leader, Dr. J. E. Church, assisted by Carl Elges.

Project 44—Purnell Fund. *Forecasting the Run-off of the Humboldt River, Nevada.* 1933–1938. Project Leader, Dr. J. E. Church, assisted by Carl Elges.

VETERINARY SCIENCE—

Project 16—Adams Fund. *Hemorrhagic Diseases in Cattle.* 1914–Continuous. Project Leader, Dr. Edward Records, assisted by Dr. L. R. Vawter.

Project 36—Adams Fund. *Lymphangitis in Cattle.* 1928–Continuous. Project Leader, Dr. Edward Records, assisted by Dr. L. R. Vawter.

Project 40—Purnell Fund. *Encephalomyelitis in Equines.* 1930–Continuous. Project Leader, Dr. Edward Records, assisted by Dr. L. R. Vawter.

ENTOMOLOGY—

Project 5—Hatch Fund. *Insects Injurious to Alfalfa.* 1916–Continuous. Project Leader, S. B. Doten.

Project 46—Hatch Fund. *The Relation of Methods of Herding Sheep on the Open Range to the Prevalence of Grub in Head* (Oestrus ovis). 1934–1937. Project Leader, S. B. Doten, assisted by C. E. Fleming, Dr. L. R. Vawter, in cooperation with the Nevada State Sheep Commission.

IRRIGATION—

Project 29—Purnell Fund. *Studies in the Reclamation of Certain Desert Soils Under Irrigation from Artesian Wells in the Las Vegas Valley of Southern Nevada.* 1922–Continuous. Project Leader, George Hardman.

Project 49—Purnell Fund. *An Inventory of the Agricultural Land Resources of the Basins of the Truckee, Carson, and Humboldt Rivers and Minor Streams.* 1934–Continuous. Project Leader, George Hardman.

Project 50—Purnell Fund. *An Inventory and History of the Water Resources of the Truckee, Carson, and Humboldt Rivers and Minor River Basins.* 1934–Continuous. Project Leader, George Hardman.

FARM DEVELOPMENT—

Project 30—Purnell Fund. *Land Utilization and Farm Development Studies.* 1925–Continuous. Project Leader, F. B. Headley, assisted by Louis Titus.

Project 32—Purnell Fund. *A Test of the Economic Efficiency of Alfalfa Hay as a Sole Ration for Dairy Cattle, and Its Relation to Sterility.* 1925–Continuous. Project Leader, F. B. Headley.

Project 41—Hatch Fund. *Hog Feeding Experiments.* 1930–Continuous. Project Leader, F. B. Headley.

Project 42—Purnell Fund. *Turkey Feeding Experiments.* 1933–Continuous. Project Leader, F. B. Headley.

Project 47—Purnell Fund. *A Study of the Tax System of Nevada in Relation to Agriculture.* 1934–Continuous. Project Leader, F. B. Headley, assisted by Cruz Venstrom.

Project 51—Purnell Fund. *A Study of Adjustments in Farming by Regions and Type-of-Farming Areas, from the Standpoint of Agricultural Adjustment and Planning, Including Soil Conservation.* 1935–Continuous. Project Leader, F. B. Headley, assisted by George Hardman, C. E. Fleming, C. A. Brennen, Cruz Venstrom, and Dean Robert Stewart.

Soil Fertility—

Project 48—Purnell Fund. *A Study of Various Organic and Inorganic Phosphates, with Special Reference to Their Ability to Penetrate Soils and to Their Positional and Chemical Availability to Plants.* 1934–Continuous. Project Leader, V. E. Spencer, assisted by Robert Stewart and S. Allan Lough.

Nevada 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 of Agricultural Extension.
C. William Stark, B.S., Administrative Assistant and Secretary to the Director.
M. Juanita Lovelock, Financial Clerk.
Thomas E. Buckman, M.S., Assistant Director for Agriculture.
Mary Stilwell Buol, B.S., Assistant Director for Home Economics.
Verner E. Scott, M.S., Extension Agricultural Economist.
Lewis E. Cline, M.S., Extension Agricultural Economist.
Alfred L. Higginbotham, M.A., Extension Editor.
H. Elwood Boerlin, B.S., Assistant County Extension Agent, Washoe County.
Royal D. Crook, M.S., District Extension Agent, Churchill and Northern Lyon Counties.
Louie A. Gardella, B.S., County Extension Agent, Lincoln County.
Hellen M. Gillette, B.A., District Extension Agent, Clark, Eureka, and White Pine Counties.
Lena Hauke, B.S., County Extension Agent, Churchill County.
M. Gertrude Hayes, B.S., County Extension Agent, Washoe County.
Paul L. Maloney, B.S., District Extension Agent, Humboldt and Northern Lander Counties.
Mark W. Menke, B.S., County Extension Agent, Elko County.
Edmund B. Recanzone, B.S., Assistant County Extension Agent, Lyon County.
Albert J. Reed, B.S., County Extension Agent, Pershing County.
Edward C. Reed, M.S., County Extension Agent, Washoe County.
Otto R. Schulz, B.S., County Extension Agent, Lyon County.
Wilbur H. Stodieck, B.S., District Extension Agent, Douglas and Ormsby Counties.
Claude R. Townsend, District Extension Agent, Southern Eureka, Southern Lander, Nye, and White Pine Counties.
Helen S. Tremewan, B.S., County Extension Agent, Elko County.
Joseph W. Wilson, B.S., County Extension Agent, Elko County.
John H. Wittwer, B.S., County Extension Agent, Clark County.
Edith Warner, B.S., Agent-at-Large, University of Nevada, Reno, Nevada.

Cooperative Extension Work in Agriculture and Home Economics is conducted in Nevada under the provisions

of the following Acts of Congress: The Smith-Lever Act, approved May 8, 1914; the Capper-Ketcham Act, approved May 22, 1928; the Bankhead-Jones Act, approved June 29, 1935. The Agricultural Extension Division as established under the Memorandum of Understanding with the U. S. Department of Agriculture 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 division.

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." Instructions and demonstrations are given to rural people in both adult and junior organized groups, such as the Farm Bureau Community Centers, the Home Makers' Clubs, and Boys' and Girls' 4–H Clubs.

The work is outlined in written projects and budgets entered into by the cooperating parties. Major projects are Range Livestock, Dairying, Poultry, Crops, Home Improvement, Human Nutrition, and Rural Organization. The organization for extension work in Nevada comprises an administrative and specialist staff, resident at the University, and eighteen county and district agents. Twelve Nevada counties have organized Farm Bureaus pursuant to Acts of the Legislature, approved April 1, 1919, and March 4, 1921. All extension work in these counties is conducted in cooperation with the Farm Bureaus.

The State Analytical Laboratory

Staff

Walter E. Clark, Ph.D. LL.D., President of the University.
Walter S. Palmer, E.M., Director.
William I. Smyth, E.M., Chemist.
Vincent P. Gianella, M.S., Mineralogist.
Harry E. Wheeler, Ph.D., Geologist.

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 work of the laboratory is done by the director and chemist, with the geologist and mineralogist assisting with the unusual rocks and minerals.

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.

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 Bureau of Mines

Staff

Walter E. Clark, Ph.D., LL.D., President of the University.
John A. Fulton, E.M., Director.
Walter S. Palmer, E.M., Metallurgist.
Jay A. Carpenter, E.M., Mining Engineer.
Vincent P. Gianella, Ph.D., Geologist.
William I. Smyth, E.M., Analyst.
Harry E. Wheeler, Ph.D., Stratigrapher.
B. F. Couch, Secretary.

The Bureau of Mines of the State of Nevada was established by the Legislature of 1929. The Act lodges the supervision of the Bureau with the Board of Regents of the University of Nevada. Under this Act it is the duty of the Board of Regents to select a Director and, upon the Director's nomination, such assistants and employees as necessary and to fix the compensation of these employees. The purposes of this Bureau are to conduct a mineralogical survey of the State, to catalogue both metallic and nonmetallic deposits, with addresses of the discoverer, owner or agent; to serve as a bureau of information and exchange in Nevada mining; to collect and publish statistics relative to Nevada mining; to prepare a bibliography of literature pertaining to Nevada mining and geology; to experiment in problems of Nevada concentration, dry placer, flotation methods, etc., and to publish the results; to collect geological and mineralogical specimens; to educate miners and prospectors through lectures and publications; to collect models, drawings and descriptions of appliances used in mining and metallurgical work; and to give consideration to such other kindred scientific and economic questions as in the judgment of the board shall be deemed of value to the people of the State.

The Legislature of 1933 granted only a nominal sum to the State Bureau of Mines for the biennium 1933–1934, making it necessary for the Bureau to suspend its activities during this biennium. The 1935 Legislature renewed the appropriation for this Bureau for the 1935–1937 biennium.

The State Hygienic Laboratory

(Sierra and Fifth Streets)

Staff

Walter E. Clark, Ph.D., LL.D., President of the University.
Vera L. Young, M.A., Acting Director.
....., Bacteriologist.
Anna Hargrove, Part-Time Assistant.

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 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.
Edward L. Randall, M.S., Assistant Chemist.
Victor Cokefair, Inspector.
Ruth Shipaugh, 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 fcr 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 1931 session of the State Legislature passed what is known as the Petroleum Products Inspection Act and the enforcement of this statute was delegated to the State Department of Weights and Measures.

The State Veterinary Control Service

Staff

Walter E. Clark, Ph.D., LL.D., President of the University.
Edward Records, V.M.D., Director.
Elizabeth Carpenter, B.S., Technician.
Alberta Machen, Stenographer.

The State Veterinary Control Service was organized during 1915, under the provisions of an Act of the Legislature approved March 11, 1915. The primary object of this department is to provide facilities for the routine diagnosis of communicable diseases of domesticated animals in the laboratory and the field. Minor research into the nature, cause, and means of control of such diseases is also carried on. Special sera and vaccines, which cannot be procured in the open market, are also prepared and supplied when needed. From time to time bulletins, circulars, and press releases dealing with the communicable diseases of domesticated animals and the most modern means of controlling the same are prepared and distributed. 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 conducted by the State Department of Agriculture, the State Board of Sheep Commissioners, and the U. S. Bureau of Animal Industry.

The services of the staff are available to the veterinarians, livestock owners and ranchers of the State in connection with any problem coming within the scope of the work of this department.

DEPARTMENT OF THE INTERIOR

United States Bureau of Mines, Rare and Precious Metals Experiment Station

Staff

Edmund S. Leaver, Met.E., Supervising Engineer and Metallurgist.
Jesse A. Woolf, M.S., Associate Metallurgist.
Miles B. Royer, M.S., Assistant Metallurgist.
Henry A. Doerner, B.S., Associate Chemist.
William O. Vanderburg, E.M., Mining Engineer.
Harry F. McCray, Chief Clerk.

Electro-Metallurgical Section

John Koster, Ph.D., Supervising Engineer, Metallurgist.
Ray G. Knickerbocker, B.S., Met.Eng., Associate Metallurgical Engineer.
Stephen M. Shelton, M.A., Associate Metallurgist.
Alfred P. Towne, Electric Furnace Mechanic.
Lillian E. Jex, Assistant Clerk-Stenographer.

Ore Testing Section

Andrew C. Rice, Ph.D., Assistant Analyst, in Charge.
Clyde E. Arrington, B.A., Assistant Analyst.
Peirce R. Perry, A.B., Junior Analyst.
Thomas A. Jackson, B.S., Junior Analyst.
Leland A. Yerkes, Assayer's Helper.

Geophysical Section

Irwin Roman, Ph.D., Geophysicist, in Charge.
Edgar Lee Stephenson, Assistant Geophysicist.
Harold G. Rauch, Geophysical Instrument Maker.
Jean Marsh deBerard, B.S., Assistant.

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. The building was completed in July, 1921, and at once fully equipped as the Rare and Precious Metals Experiment Station.

The scope of work embraces investigation of gold, silver, platinum and rare metals for the entire United States, and other problems having especial importance for the mining and metallurgical industries of Nevada.

During the present year the station staff has been largely

increased to include special studies in electrometallurgy that may primarily aid the commercial use of Boulder Dam power. Ore testing has been increased to a full section. Mining has been given more importance and a geophysical section added.

THE SUMMER SCHOOL

Carried on without support from University funds for the year 1931; not held in Summers of 1932 to 1937 because of retrenchment program.

WINNERS OF SCHOLARSHIPS AND HONORS, 1935

ROLL OF DEGREES GRANTED, 1935

ENROLLMENT SUMMARY FOR 1935–1936

ROSTER OF STUDENTS—August, 1935–May, 1936

RECIPIENTS OF SCHOLARSHIPS AND HONORS
1935

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

Florence Gulling — Clayton Carpenter
Margaret Traner — Walter Palmer
Jessie McClure

The ELLA SPRENGLE STUBBS SCHOLARSHIP of $100, awarded to
Mrs. Alice Mason Stauts

The UNIVERSITY ASSOCIATED WOMEN STUDENTS' SCHOLARSHIP of $25, awarded to
Margaret Jensen

The LEWIS D. FOLSOM SCHOLARSHIP of $100, awarded to
Jack Hughes

The ROSE SIGLER MATHEWS SCHOLARSHIPS of $100 each, awarded to
Mary Mathews — Elizabeth Blum

The THEODORA STUBBS FULTON MEMORIAL SCHOLARSHIP of $100 was not offered this year.

The MARYE WILLIAMS BUTLER SCHOLARSHIPS of $50 each, awarded to
Elizabeth Juniper

The WOMEN'S ATHLETIC SCHOLARSHIP of $75, awarded to
Alice Lundberg

The AZRO E. CHENEY SCHOLARSHIP of $300, awarded to
Ida de Nevi

The GENERAL O. M. MITCHELL WOMAN'S RELIEF CORPS MILITARY SCHOLARSHIP of $50. No award this year.

The WASHOE COUNTY BAR ASSOCIATION SCHOLARSHIP of $100, awarded to
Elizabeth Fredrickson

The MRS. CARL OTTO HERZ ELECTRICAL ENGINEERING SCHOLARSHIP of $50, awarded to
Paul Bohlke

The CHARLES ELMER CLOUGH SCHOLARSHIPS of $160 each, awarded to
Harold Westfall — Charles Allen

The JAMES WARD GERMAN–KATHERINE MORRISON GERMAN $250 SCHOLARSHIP TENABLE FOR TWO YEARS, awarded to

Gertrude M. Polander

The CARRIE BROOKS LAYMAN MEMORIAL SCHOLARSHIP of $300, awarded to

Lloyd N. Bowen

The PREMEDICAL SCHOLARSHIP of $100, awarded to

Wiley Davey

The WILLIAM S. LUNSFORD SCHOLARSHIP IN JOURNALISM of $75, awarded to

Elwin Jeffers

The RENO CHAPTER WOMAN'S CHRISTIAN TEMPERANCE UNION ESSAY PRIZE of $20 was not given this year.

The PHILO S. BENNETT PRIZE for the best essay on "The Principles of Free Government," awarded to

Margaret Gorman

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

Forrest M. Bibb

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.

Sarah Graves

Commissions as Second Lieutenants of Infantry, United States Army—Officers' Reserve Corps:

Antonio Chavez	Robert M. Hansen
Wendell H. Duplantis	William H. Hill
Alson P. Gibson	William F. Kottke

James M. Thompson

Commission as Second Lieutenant of Infantry, National Guard of the United States:

Perry B. Priest

Designated as Honor Graduate under the provisions of Army Regulations 145–10:

Wendell H. Duplantis

Reserve Officers' Association Medal for Attendance and Discipline, awarded to

Cadet Sgt. Charles L. Allen

Scabbard and Blade Gold Medal for Excellency in Drill, Attendance and Discipline, awarded to

Cadet Sgt. Wayne M. Kennedy

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

Merle H. Atcheson	William Jarl Johnstone
Ruby E. Bliss	Blanche Keegan
Carl E. Dunn	Glenna D. McQuerry
Sarah Graves	Grace Semenza

Helen Wittenberg

HONOR ROLL OF THE SENIOR CLASS, whose average for the *four years* is 1.5 or higher:

Sarah Graves

Transferees who made records higher than 1.5 were:

Mrs. Ralph Wittenberg	William Jarl Johnstone

Students whose names appeared on the HONOR SCHOLARSHIP ROLL both semesters of the year 1934–1935:

SENIORS

Mrs. Ralph Wittenberg	Glenna D. McQuerry
Sarah Graves	William J. Johnstone

JUNIORS

Florence Gulling	Margaret Traner
Paul Bohlke	Chris Wogan

Andrew Morby

SOPHOMORES

Clayton Carpenter	Charles Allen
Walter Palmer	Betty Bowman
Ida de Nevi	Clyde Beck

FRESHMEN

Jessie McClure	Elona Van Sickle
Margaret Jensen	Louis Carpenter
Russell McDonald	Dorence Jameson
Alice Sauer	Eugene Rollins

GRADUATES

Diplomas and Degrees were awarded on Commencement Day, May 13, 1935, as follows:

ADVANCED DEGREES

Master of Arts

Ruth Eleanor Bixby
Emily L. Ross

Master of Science

Martha Huber Plumley
Sessions S. Wheeler

Engineer of Mines

Leland Hobart Hinckley

Bachelor of Arts

Grace G. Armbruster
Mable Louise Armstrong
Emma B. Aznarez
Isabel O. Baker
(December 22, 1934)
J. Rulon Bastian
Forrest M. Bibb
Ruby Evelyn Bliss
Marion Brodie
Clarence L. Byrd
Garry J. Callahan
Marjorie Cannon
Caryl Carman
Robert Blake Creps
Brendan F. Donovan
Harrison Claude Dukes
Carl E. Dunn
Mary Louise Durkee
Sallie M. Fagan
Naomi Claire Fitzgerald
(December 22, 1934)
Kerwin Laurence Foley
(December 22, 1934)
Mary V. Gates
William Evan Gelder
Dorothy C. Gordon
George L. Gottschalk
Sarah Graves
H. Walter Hargreaves
Bela Alan Harcos
(December 22, 1934)
Ruth Alice-Eugene Hawn
Floyd L. Holt
(December 22, 1934)
Dorothy Jackson
Charles S. Jensen
Franklin Henry Koehler
George Lohse
Edwin G. Lozano
Donald W. Macdonald
Wm. Griffith Macdonald, Jr.
Peggy L. Maher
Helen Theresa Malloy
Joseph M. McLeod
(December 22, 1934)
Edwin Caine Martinez
William F. McMenamin
Glenna Delle McQuerry
Madelyn M. Miller
Dorothy Nason

Wallace Brooks Park
Alice Louise Parman
Herbert Miller Peck, Jr.
(December 22, 1934)
Roy G. Petrie
Margaret Rather
Franklin Kistler Rivers
Walter B. Scott
Grace Semenza
Dorothea Virginia Shidler
Helene Stark
James M. Thompson
Paul Dutton Turner
Angelo Urrutia
Stella Vucovich
Melba Fern Wible
(December 22, 1934)
Helen Wittenberg
Elizabeth Young

Bachelor of Science

Charles Edwin Bath
(December 22, 1934)
Dino B. Barengo
Hermon Richard Cooke, Jr.
Lawrence Du Four
Robert McClelland Hansen
Kathleen Haffey Houx
Nell Lozano
Pearl Annette Lunsford
(December 22, 1934)
Helene L. Per Lee
Wilbert I. Petersen
Edward L. Pine
Helen Records
Emily Richards
Harold E. West
Mary Margaret Williams
Del Wininger

Bachelor of Science in Mining Engineering

James Henry Cazier
Antonio Chavez
John C. Curtis
(December 22, 1934)
Elmer P. Hawkins
Chandler A. Johnson
William Carleton McCulloch
Philip C. McGuire
Frank Sam
Oliver G. Seymour
Benjamin Hampton Sheahan

Bachelor of Science in Mechanical Engineering

William Cecil Cheal
James W. Crawford
Fred DeWitt Dunn
Yu G. Kwan
Lyman Edward Parmenter
Cornelio B. Patinga
Victor Promptoff
(December 22, 1934)
Jack D. Williams

Bachelor of Science in Civil Engineering

William Durbrow, Jr.
William Jarl Johnstone
Hugh Francis McIntyre
Henry W. Smith
James D. Wallace
(December 22, 1934)

Bachelor of Science in Electrical Engineering

Merle H. Atcheson
Albert D'Alessandro
William Eckhoff
L. Walter Evans

BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING—*Continued.*

Alson Parr Gibson
Vladimir P. Kravetsky
(December 22, 1934)
Ned R. Morehouse
Donald DeWitt Odell
Conrad L. Pettengill
Neil W. Plath
Grant A. Rice
Laurence E. Zoebel

BACHELOR OF SCIENCE IN AGRICULTURE

Nolan W. Gault
(December 22, 1934)
John D. Flournoy

BACHELOR OF SCIENCE IN HOME ECONOMICS

Juana L. Barber
F. Elizabeth Frey
Blanche E. Keegan
Kathryn Adele Nichols
Mary E. Swett

TEACHER'S DIPLOMA OF HIGH SCHOOL GRADE

Grace G. Armbruster
Mable Louise Armstrong
Emma B. Aznarez
Isabel O. Baker
(December 22, 1934)
Ruth Eleanor Bixby
Ruby Evelyn Bliss
Marjorie Cannon
Lawrence W. Carter
Wendell H. Duplantis
Mary Louise Durkee
Sallie M. Fagan
Naomi Claire Fitzgerald
(December 22, 1934)
Mary V. Gates
Sarah Graves
Blanche E. Keegan
Glenna Delle McQuerry
Dorothy Nason
Alice L. Parman
Herbert Miller Peck, Jr.
(December 22, 1934)
Helene L. Per Lee
Roy G. Petrie
Margaret Rather
Franklin Kistler Rivers
Margaret A. Robinson
Walter B. Scott
Dorothea Virginia Shidler
Helene Stark
Mary E. Swett
Angelo Urrutia
Melba Fern Wible
(December 22, 1934)

TEACHER'S DIPLOMA OF GRAMMAR GRADE

Margaret Elaine Bagley
Edith M. Dutton
Charles Funk
Christine Claire Iverson
Ina G. Sharpe

ENROLLMENT SUMMARY

COLLEGE OF ARTS AND SCIENCE

Seniors	92	
Juniors	90	
Sophomores	157	
Freshmen	237	
Graduate	61	
Unclassified	53	
Specials	27	
		717

NORMAL SCHOOL

Juniors	1	
Sophomores	15	
Freshmen	18	
Unclassified	1	
		35

COLLEGE OF ENGINEERING

Mackay School of Mines—

Seniors	4	
Juniors	16	
Sophomores	31	
Freshmen	19	
Graduate	2	
Unclassified	3	
Specials	1	
		76

School of Mechanical Engineering—

Seniors	5	
Juniors	7	
Sophomores	7	
Freshmen	20	
Graduate	3	
Unclassified	1	
Specials	1	
		44

School of Civil Engineering—

Seniors	3	
Juniors	12	
Sophomores	9	
Freshmen	16	
Graduate	2	
Unclassified	1	
		43

School of Electrical Engineering—

Seniors	10	
Juniors	4	
Sophomores	15	
Freshmen	14	
Graduate	1	
Unclassified	2	
Specials	1	
		47

COLLEGE OF AGRICULTURE

School of Agriculture—

Seniors	2	
Juniors	3	
Sophomores	16	
Freshmen	33	
Graduate	1	
Specials	1	
		56

School of Home Economics—

Seniors	10	
Juniors	7	
Sophomores	8	
Freshmen	20	
Graduate	1	
		46

Total University		1064
Enrollment of Men	622	
Enrollment of Women	442	
Grand Total Enrollment		1064

ROSTER OF STUDENTS

GRADUATE

Clark Amens	Mechanical Engineering	Reno
Evalyn Anderson	Arts and Science	Hollywood, Calif.
Robert N. Anderson	Arts and Science	Reno
Mable Armstrong	Arts and Science	Reno
Merle H. Atcheson	Electrical Engineering	Gardnerville
Juana L. Barber	Home Economics	Reno
Bud L. Beasley	Arts and Science	Reno
Monty Boland	Arts and Science	Reno
Clyde E. Buchanan	Arts and Science	Sparks
Mrs. B. F. Chappelle	Arts and Science	Reno
Mabel L. Connor	Arts and Science	Reno
Virginia L. Cross	Arts and Science	Sparks
Jean De Berard	Arts and Science	Reno
Angela C. De Nevi	Arts and Science	Dayton
Mae Denevi	Arts and Science	Sparks
Dwight F. Dilts	Arts and Science	Sparks
William Eckhoff	Civil Engineering	Reno
Fred Eikelberger	Arts and Science	Sparks
Margaret Ernst	Arts and Science	Reno
L. Walter Evans	Mines	Wells
Mrs. Ethel L. Feemster	Arts and Science	Reno
Armena M. Fritz	Arts and Science	Reno
Ida Frost	Arts and Science	Reno
George F. Gadda	Arts and Science	Reno
Evelyn H. Gault	Arts and Science	Reno
Muriel Goodwin	Arts and Science	Reno
Helen Halley	Arts and Science	Reno
Clair Harper	Arts and Science	Reno
Leland S. Hazeltine	Mechanical Engineering	Reno
James R. Henrichs	Arts and Science	Reno
Richard P. Hillman	Arts and Science	Sparks
Flora Holden	Arts and Science	Reno
Elizabeth Z. Hunt	Arts and Science	Alameda, Calif.
Thomas A. Jackson	Mines	Reno
Ruth M. Jones	Arts and Science	Reno
Kenneth S. Karsten	Arts and Science	Reno

Raymond Kilian	Arts and Science	Reno
Chauncey L. King	Arts and Science	Winnemucca
Howard W. Lambert	Civil Engineering	Reno
Robert A. Long	Arts and Science	Reno
Ainsley Mabson	Arts and Science	Reno
Evelyn Mantle	Arts and Science	Sparks
Joseph T. McDonnell	Arts and Science	Reno
C. E. Mitchell	Arts and Science	Sparks
Andrew Morby	Arts and Science	Sparks
Natalie P. Nenzel	Arts and Science	Reno
Clare O'Sullivan	Arts and Science	Reno
Alice L. Parman	Arts and Science	Reno
Mrs. Verna S. Paterson	Arts and Science	Reno
Marvel Ranson	Arts and Science	Reno
Victor L. Ricketts	Arts and Science	Palo Alto, Calif.
Emma B. Sawyer	Arts and Science	Reno
Neil P. Scott	Arts and Science	Reno
William J. Shirley	Arts and Science	Reno
Alwine Sielaff	Arts and Science	Reno
Florence L. Stephens	Arts and Science	Reno
Kerby Stoddard	Arts and Science	Reno
Lucile Stone	Arts and Science	Sparks
John J. Sullivan	Arts and Science	Reno
Albert Sutherland	Arts and Science	Reno
Darrel C. Swope	Arts and Science	Reno
Rose Taverna	Arts and Science	Reno
Winifred Thomas	Arts and Science	Reno
Louis Titus	Arts and Science	Reno
Velva C. Trulove	Arts and Science	Sparks
Mrs. Ula R. Vandiver	Arts and Science	Reno
J. R. Warren	Arts and Science	Reno
Jack D. Williams	Mechanical Engineering	McGill
Margaret M. Williams	Arts and Science	Reno
Frances McKay Wood	Arts and Science	Reno

SENIORS

Samuel Ackerman	Civil Engineering	Reno
R. Cornelia Arentz	Arts and Science	Simpson
Raymond E. Armstrong	Arts and Science	Reno
Ruth E. Bails	Home Economics	Sparks
Eleanor E. Bateman	Home Economics	Tonopah
Lucile R. Berg	Arts and Science	Round Mountain
Robert T. Best	Electrical Engineering	Fallon

Hazura Singh Birdi	Elec. Engineering	French Camp, Calif.
John M. Blakely	Arts and Science	Reno
Paul G. Bohlke	Electrical Engineering	Reno
Alice E. Boland	Arts and Science	Reno
Harry R. Bonnifield	Mechanical Engineering	Reno
Walter M. Bowrin	Arts and Science	Sparks
Julius Broili	Electrical Engineering	Reno
Lois E. Brooks	Arts and Science	Reno
Roberta deHart Browne	Arts and Science	Reno
Fern Elges Bushing	Arts and Science	Reno
Miriam L. Butler	Arts and Science	Sparks
Robert B. Butler	Mechanical Engineering	Lovelock
Eleanora Campbell	Arts and Science	Reno
Eunice A. Caton	Arts and Science	Reno
Ellis A. Ceander	Electrical Engineering	Reno
Verla R. Champagne	Arts and Science	Sparks
Daniel H. Chiatovich	Arts and Science	Reno
Barbara Clark	Arts and Science	Reno
Georgia L. Cole	Arts and Science	Reno
Mary C. Corecco	Arts and Science	Reno
Margaret J. Crosby	Arts and Science	Reno
Delvan W. Dean	Arts and Science	Fernley
Ellen Agnes De Armond	Home Economics	Arthur
Marireba De Armond	Arts and Science	Arthur
Mrs. Lucia M. Devore	Arts and Science	Reno
Eleanor L. Doan	Arts and Science	Sparks
Carl F. Dodge	Arts and Science	Fallon
Catherine Dondero	Arts and Science	Hawthorne
Harold K. Edmonds	Arts and Science	Azusa, Calif.
Murray M. English	Arts and Science	Reno
Ellen Ernst	Arts and Science	Fallon
Walter J. Fancher	Mechanical Engineering	Manhattan
George F. Francis	Electrical Engineering	Las Vegas
Lura Gamble	Arts and Science	Hazen
Thoon T. Gee	Mechanical Engineering	Reno
Roy H. Gomm	Arts and Science	Tonopah
Margaret R. Gorman	Home Economics	Reno
Frances C. Graf	Arts and Science	Reno
Maurine M. Graf	Arts and Science	Reno
R. Guild Gray	Arts and Science	Reno
C. F. Lindsay Green	Arts and Science	Ely
Richard A. Greulich	Electrical Engineering	Reno
Florence R. Gulling	Arts and Science	Reno

Rita Gunter	Arts and Science	Reno
Fred C. Hartman	Arts and Science	Reno
Opal E. Harvey	Arts and Science	Paradise Valley
Lorraine Hawkins	Arts and Science	Reno
Richard Herz	Arts and Science	Reno
C. Leland Hill	Arts and Science	Reno
Virginia E. Hill	Arts and Science	Reno
Colene Hollan	Home Economics	Eureka
William O. Holmes	Arts and Science	Reno
Jean M. Horning	Mines	Wasilla, Alaska
Ruby M. Hoskins	Home Economics	Reno
Betty A. Howell	Arts and Science	Reno
Jack Hughes	Arts and Science	Reno
Elwin L. Jeffers	Arts and Science	Reno
Neca Jones	Home Economics	Overton
Florence E. Kirkley	Arts and Science	Reno
Robert B. Knight	Arts and Science	Gardnerville
Bernice Lam	Home Economics	Reno
Frank R. Leonard	Arts and Science	McGill
Paul A. Leonard	Arts and Science	Reno
Annie C. Lucas	Arts and Science	Mason
Alice A. Lundberg	Arts and Science	Sparks
Inez F. MacGillivray	Arts and Science	Reno
Florine Frank Maher	Arts and Science	Reno
Robert Maher	Arts and Science	Reno
Joseph M. Mastroianni	Civil Engineering	Dayton
Czerna W. McQuerry	Arts and Science	Reno
Bernarr G. Moulton	Mines	Ely
Mary E. Murphy	Arts and Science	Reno
Florindo Nannini	Electrical Engineering	Reno
Robert Nelligan	Arts and Science	Reno
Charles S. Nichols, Jr.	Arts and Science	Reno
Mary R. Pappas	Arts and Science	Virginia City
May E. Parman	Arts and Science	Reno
J. Lewis Pulsipher, Jr.	Arts and Science	Mesquite
Jack Quaid	Arts and Science	Reno
Embree Raiford	Arts and Science	Reno
C. Bryce Rhodes	Arts and Science	Reno
Louise T. Rhodes	Arts and Science	Reno
Dorothy Roseberry	Arts and Science	Battle Mountain
Hugh I. Rossolo	Electrical Engineering	East Ely
Melvin C. Ruedy	Arts and Science	Reno
William H. Savage	Arts and Science	Reno

Harry W. Sawyer	Arts and Science	Fallon
Orva L. Selkirk	Arts and Science	Gardnerville
Evelyn E. Semenza	Arts and Science	Reno
George M. Shogren	Arts and Science	Reno
Philip Shore	Arts and Science	Reno
Julia P. Sibley	Arts and Science	Reno
Frances P. Slavin	Arts and Science	Las Vegas
Ralph T. Smith	Agriculture	Reno
Helen Smithe	Arts and Science	Sparks
George A. Southworth	Arts and Science	Reno
Emmett L. Spencer	Mines	Reno
Helen Spina	Arts and Science	Reno
La Rue Stark	Arts and Science	Reno
Alice Mason Stauts	Arts and Science	Reno
George B. Steffens	Agriculture	Center Moriches, N. Y.
J. Earl Stevenson	Mines	Las Vegas
Robert L. Stoker	Arts and Science	Reno
Frank Sullivan	Arts and Science	Reno
Jack N. Tedford	Mechanical Engineering	Fallon
George W. Tharp	Arts and Science	Marysville, Calif.
Margaret C. Traner	Arts and Science	Reno
Mary Eleanor Underwood	Home Economics	McLeansboro, Ill.
Leonard G. Voorheis	Arts and Science	Lovelock
Ross Wainwright	Arts and Science	Reno
Genevieve Wakefield	Arts and Science	Reno
Margaret E. Walker	Home Economics	Sparks
Winifred A. Walsh	Arts and Science	Reno
Irvin R. Wanke	Civil Engineering	Sparks
Leland G. Ward	Arts and Science	Las Vegas
Harold Westfall	Electrical Engineering	Eureka
Charles Joseph Winter	Arts and Science	Reno
Leland A. Yerkes	Arts and Science	Reno
Amelia Zorich	Arts and Science	Truckee, Calif.

JUNIORS

Charles F. Allen	Mech. Engineering	Susanville, Calif.
Peter Anker	Civil Engineering	Lovelock
John F. Armstrong	Arts and Science	Alameda, Calif.
James H. Ashbaugh	Arts and Science	Los Angeles, Calif.
Ruth K. Atcheson	Arts and Science	Gardnerville
Harry L. Austin	Arts and Science	McGill
W. Russell Bailey	Arts and Science	Sweetwater
Ralph R. Ball	Mechanical Engineering	Reno

Elizabeth A. Barnes	Arts and Science	Reno
Robert H. Barrett	Mines	Fallon
Eleanor L. Barry	Arts and Science	Reno
Clyde F. Beck	Arts and Science	Reno
Jack C. Becker	Arts and Science	Reno
Evamae Beemer	Arts and Science	Sparks
John F. Benson	Arts and Science	Westwood, Calif.
Mary Elizabeth Blum	Arts and Science	Reno
Arlene Boerlin	Home Economics	Hawthorne
Betty G. Bowman	Mines	Reno
Orrin R. Broberg	Mech. Engineering	Los Angeles, Calif.
Barbara M. Bryant	Arts and Science	Susanville, Calif.
Frances H. Burke	Arts and Science	Reno
Hjalmar H. Burrus	Mines	Reno
Roy Caldwell	Mines	Reno
Jean E. Cameron	Arts and Science	Carson City
Eleanor G. Campbell	Home Economics	Reno
Clayton A. Carpenter	Electrical Engineering	Reno
Victor E. Carroll	Civil Engineering	Alhambra, Calif.
William J. Cashill	Arts and Science	Reno
Emmeline Christensen	Arts and Science	Fernley
Amy M. Clarke	Normal	San Gabriel, Calif.
John H. Cleary	Mines	Delhi, Calif.
Kenneth G. Cobb	Arts and Science	Reno
Tyrus R. Cobb	Arts and Science	Virginia City
Donald K. Cole	Civil Engineering	Reno
Myrtle L. Cox	Arts and Science	Reno
Ellen Creek	Arts and Science	Reno
Bert G. Cummings	Mines	Reno
John Dana	Mines	Center Moriches, N. Y.
Robert C. Davey	Electrical Engineering	Sparks
Gerald Delannoy	Mines	Los Angeles, Calif.
Ida L. De Nevi	Arts and Science	Dayton
Joseph A. Dennis	Arts and Science	Reno
George Wm. Devore	Civil Engineering	Reno
Joyce Dodge	Arts and Science	Reno
Jack C. Elliott	Arts and Science	McGill
Louise Emminger	Arts and Science	Mina
Gwenevere Erikson	Arts and Science	Reno
Leland J. Fife	Arts and Science	Sparks
Chrissie J. Finn	Home Economics	Reno
Eleanor J. Fisher	Arts and Science	Reno
John D. Franklin	Civil Engineering	Wells

Marguerite M. Fuetsch	Home Economics	Reno
Helene Fulton	Arts and Science	Reno
Lynn B. Gerow	Arts and Science	Reno
Emile J. Gezelin	Arts and Science	Reno
Anne Gibbs	Arts and Science	Fallon
Ruthe V. Goldsworthy	Arts and Science	Reno
Bert M. Goldwater	Arts and Science	Reno
Emery W. Graunke	Arts and Science	Gardnerville
Leslie B. Gray	Arts and Science	Sparks
Leslie A. Green	Mines	Reno
Lillian E. Guisti	Arts and Science	Reno
Genevieve Hansen	Home Economics	Lovelock
George H. Harlan	Arts and Science	Sausalito, Calif.
Georgianna Harriman	Arts and Science	Fallon
Elda Haslett	Arts and Science	Reno
Jeremiah R. Havens	Arts and Science	Center Moriches,N.Y.
Paul C. Heilmann	Arts and Science	Live Oak,Calif.
James R. Herz	Arts and Science	Reno
George J. Hickey	Arts and Science	Gardnerville
Claude Hunter	Civil Engineering	Reno
Walter Hunting	Arts and Science	Carson City
Rita L. Jepson	Arts and Science	Sparks
Joseph T. Jones	Elec. Eng.	North Hollywood, Calif.
Elizabeth Juniper	Arts and Science	Reno
Virginia E. Kearns	Arts and Science	Reno
Charles F. Keeler	Civil Engineering	Reno
Joseph R. Kelley	Arts and Science	Eureka
Nell E. Kilpatrick	Arts and Science	Reno
Frank J. Kornmayer	Civil Engineering	Reno
Ira La Rivers	Arts and Science	Reno
Charles A. Leavitt	Arts and Science	Elko
Anthony Leone	Civil Engineering	Reno
Kathryn Luke	Home Economics	Reno
Margaret Lyon	Arts and Science	Reno
Ruth N. Lyons	Arts and Science	Reno
Evelyn G. Matson	Arts and Science	Reno
Betty M. McCuistion	Arts and Science	Reno
Betty Jane McCulloch	Arts and Science	Fernley
Lois M. Midgley	Arts and Science	Reno
Gordon W. Miles	Arts and Science	Wabuska
Norma Jean Mills	Arts and Science	Fallon
Orpah R. Morgan	Home Economics	Reno
Louise E. Mornston	Arts and Science	Sparks

Rodney E. Morrin	Arts and Science	Lovelock
Guy P. Morris	Mechanical Engineering	Tonopah
Thomas Q. Morris	Mechanical Engineering	Tonopah
William C. Morris	Electrical Engineering	Reno
Eldridge Nash	Mines	Las Vegas
James Norman Nelson	Civil Engineering	Sparks
Katharine Norrid	Arts and Science	Reno
Nelda M. Oppedyk	Arts and Science	Las Vegas
Ruth E. Palmer	Arts and Science	Reno
Walter S. Palmer, Jr.	Arts and Science	Reno
Edward Paradis	Arts and Science	Sparks
Clayton D. Phillips	Arts and Science	Reno
Dorothy E. Phillips	Arts and Science	Reno
Margaret Piercy	Arts and Science	Tonopah
Russell Poulsen	Arts and Science	Reno
Wayne E. Poulsen	Arts and Science	Reno
Antoine Primeaux	Agriculture	Carlin
Thomas C. Prunty	Arts and Science	Sparks
Frank Quilici	Arts and Science	Dayton
Joseph P. Radetich	Arts and Science	Reno
Forrest L. Rhodes	Civil Engineering	Reno
Kenyon E. Richard	Mines	Visalia, Calif.
Marie L. Richards	Arts and Science	Reno
Charlotte E. Robison	Arts and Science	Reno
Silas E. Ross	Arts and Science	Reno
Alma A. Schiappacasse	Arts and Science	Reno
Marianne I. Severne	Arts and Science	Sparks
Frank Sharp	Mines	Wells
Marion E. Simpson	Arts and Science	Reno
John L. Starratt	Arts and Science	Reno
J. D. Stephens, Jr.	Mines	Fresno, Calif.
John F. Stock	Mines	St. Louis, Missouri
John D. Swearingen	Mines	Mill Valley, Calif.
Vernon Tapogna	Agriculture	Reno
Leslie S. Tomley	Arts and Science	Hayward, Calif.
Fred Tong	Mines	Kimberly
Orval C. Tregellas	Arts and Science	Reno
Ethel M. Trim	Arts and Science	Reno
Marion A. Uhart	Arts and Science	Minden
Aldo R. Vacchina	Arts and Science	Reno
Paul R. Walker	Agriculture	Reno
J. Kenneth Ward	Mec. Engineering	Cornell, Calif.
Rita H. Winer	Arts and Science	Reno

Chris W. Wogan	Arts and Science	Reno
Frederick L. Wood	Mechanical Engineering	Hawthorne
Robert Zadow	Civil Engineering	Ely

SOPHOMORES

Bernard R. Addenbrooke	Electrical Engineering	Reno
Grace E. Amonette	Normal	Elko
Eugene B. Anderson	Mines	Tacoma, Washington
George M. Anderson	Electrical Engineering	Reno
Norma A. Anderson	Arts and Science	Reno
Catherine Armstrong	Arts and Science	Elko
Thelma M. Armstrong	Arts and Science	Sparks
Oliver C. Aymar	Arts and Science	Reno
Rose E. Bachman	Normal	Mina
Anne Banovich	Normal	Tonopah
Marie Barnes	Home Economics	Reno
Edmond J. Barrett	Electrical Engineering	Ruth
John W. Barrett	Arts and Science	Reno
Benjamin C. Barton	Mechanical Engineering	Yerington
Sam Basta	Arts and Science	Ruth
Doris E. Bath	Home Economics	Reno
John E. Bawden	Civil Engineering	Reno
Victor L. Becaas	Arts and Science	Reno
Wanda E. Bell	Normal	Las Vegas
Elizabeth Best	Arts and Science	Fallon
Ralph Birchard	Mines	Los Angeles, Calif.
Gladys Blair	Arts and Science	Reno
Mary Catherine Blakely	Arts and Science	Reno
Nina A. Boczkiewicz	Arts and Science	Stewart
Carolyn N. Bordewich	Arts and Science	Carson City
Lottie Boulden	Arts and Science	Battle Mountain
Harry H. Bradley	Agriculture	Fallon
Aldene D. Branch	Home Economics	Reno
Marion C. Brooks	Mines	Las Vegas
George B. Brown	Mines	Oakland, Calif.
Mrs. Jessie Buchanan	Normal	Reno
John D. Burgess	Mines	Melones, Calif.
Verna Butler	Arts and Science	Alameda, Calif.
Russell F. Byington	Mines	Reno
Darrel S. Cain	Arts and Science	Reno
Walter B. Cain	Agriculture	Reno
Kevin Callahan	Arts and Science	Fallon
E'Lois Campbell	Arts and Science	Reno

Jeanne Cardinal	Arts and Science	Gardnerville
Mary Louise Carmody	Arts and Science	Reno
Louis R. Carpenter	Mines	Oroville, Calif.
Denzil M. Carr	Mines	Delhi, Calif.
John K. Carr	Arts and Science	Fallon
Richard A. Carville	Arts and Science	Reno
Harriet N. Cazier	Arts and Science	Wells
Jess R. Christensen	Arts and Science	Fernley
Walter J. Christian	Arts and Science	Pioche
Margaret A. Clark	Normal	Gardnerville
Robert M. Cleary	Mines	Delhi, Calif.
Beulah Cline	Normal	Las Vegas
Bernard Coalwell	Mechanical Engineering	Reno
William J. Cockrell	Electrical Engineering	Reno
Georgia E. Cooper	Home Economics	Reno
Joyce A. Cooper	Arts and Science	Reno
Helen J. Crabtree	Arts and Science	Reno
Marshall S. Creel	Arts and Science	Reno
Allen Cromwell	Arts and Science	Reno
Camille Crosby	Arts and Science	Wadsworth
Virginia D. Crosby	Arts and Science	Reno
Georgia Curnow	Arts and Science	Reno
Lois R. Darrough	Arts and Science	Gardnerville
Wiley Davey	Arts and Science	Susanville, Calif.
Robert H. Defosset	Mines	San Luis Obispo, Calif.
Grover W. De La Mare	Mines	Reno
Edith J. Delmore	Arts and Science	Ely
Dorothy Dignan	Arts and Science	Reno
Melvin G. Dodson	Mines	Carson City
Charles S. Doherty	Arts and Science	Ely
Dariel Doyle	Arts and Science	Reno
Gordon Drendel	Arts and Science	Reno
George E. Dukes	Arts and Science	Reno
Virginia Edwards	Arts and Science	Reno
Michael Elcano	Arts and Science	Reno
William H. Elwell	Arts and Science	Las Vegas
Dorothy Evans	Arts and Science	Reno
Howard A. Evans	Electrical Engineering	McGill
Kirk S. Fairhurst	Mechanical Engineering	Reno
Donald Fanning	Agriculture	Reno
Thomas T. Fields	Arts and Science	Gardnerville
Sidney Fox	Arts and Science	Reno
George Franklin	Arts and Science	Reno

Elizabeth Fredrickson	Arts and Science	Goodsprings
Herman L. Freudenberg	Mines	Vallejo, Calif.
James A. Galvin	Arts and Science	Tonopah
Eleanor Gardella	Arts and Science	Wadsworth
Billie Geyer	Arts and Science	Reno
Gaynell G. Giblin	Arts and Science	Fallon
Margaret L. Gill	Arts and Science	Reno
Oly Glusovich	Arts and Science	Tonopah
William L. Goodin	Agriculture	Reno
Jeanette F. Green	Arts and Science	Sparks
Eugene W. Grutt	Mines	Reno
William H. Guild	Mines	Yerington
Peter N. Guisti	Civil Engineering	Reno
Charles L. Gundlach	Civil Engineering	Montello
George R. Hadlen	Agriculture	Reno
Forrest G. Hagadorn	Elec. Engineering	Sacramento, Calif.
Frances G. Haire	Arts and Science	Reno
Orville F. Hand	Mines	Hawthorne
Berna Hansen	Arts and Science	Wells
Hattie B. Hard	Arts and Science	Wadsworth
Meda May Haskin	Normal	Tonopah
Virginia Hearne	Arts and Science	Ventura, Calif.
Helen B. Heaster	Arts and Science	Richmond, Calif.
Isabelle Henderson	Arts and Science	Elko
Harold O. Herz	Agriculture	Reno
Frank D. Hickey	Arts and Science	Reno
Mrs. Mamie Hildebrand	Normal	Montello
Winnifred R. Hiltonen	Arts and Science	Goldfield
Ellen I. Hoffman	Arts and Science	Reno
Ellen B. Holcomb	Arts and Science	Reno
Dorence Jameson	Arts and Science	Fallon
Laurada Jarvis	Arts and Science	Fallon
Morgan K. Jarvis	Arts and Science	Minden
Margaret Jensen	Arts and Science	Gardnerville
Maxwell O. Jensen	Arts and Science	Ely
William H. Johnston	Arts and Science	Reno
Charles Wm. Johnstone	Arts and Science	Reno
Beverly M. Jones	Arts and Science	Gardnerville
Beverly Joyce	Arts and Science	Reno
Clyde E. Keegel	Mines	Las Vegas
Basil T. Kehoe	Arts and Science	Boulder City
Grant M. Kennedy	Mines	Lovelock
Wayne Kennedy	Civil Engineering	Las Vegas

Ethel K. Kent	Arts and Science	Stillwater
Mary E. Kling	Normal	McGill
Harvey O. Kolhoss	Mines	Fallon
Esther L. Laiola	Arts and Science	Reno
Paul R. Laiola	Arts and Science	Reno
Henry A. Lang	Mines	San Francisco, Calif.
Allen Lansdon	Agriculture	Reno
Ernest E. Larkin	Arts and Science	Reno
Richard H. Laub	Arts and Science	Goldfield
Melva Lauritzen	Arts and Science	Fernley
Robert A. Lauten	Mines	San Francisco, Calif.
Robert E. Leaver	Civil Engineering	Reno
Donald M. Leighton	Arts and Science	Wells
Cletis J. Libbey	Arts and Science	Fallon
Lincoln H. Liston	Arts and Science	Caliente
Josephine M. Little	Arts and Science	Fernley
Joseph P. Lommori	Arts and Science	Yerington
Lauritz B. Lund	Agriculture	Reno
Gordon H. Macdonald	Mines	Gardnerville
Albert R. Manhan	Arts and Science	Reno
Wilton Margrave	Mechanical Engineering	Reno
Rosalys M. Martinez	Arts and Science	Reno
Mary F. Mathews	Arts and Science	Reno
Lockley T. Maule	Arts and Science	Minden
Loren Maxwell	Electrical Engineering	Reno
Elma E. May	Arts and Science	Reno
Jessie McClure	Arts and Science	Reno
Russell W. McDonald	Arts and Science	Reno
Donald McDonnell	Arts and Science	Fallon
Douglas McDow	Arts and Science	Reno
Ellen V. McFarland	Arts and Science	Hamilton City, Calif.
Gene D. McIntyre	Arts and Science	Reno
Stanford W. McNair	Arts and Science	Goldfield
James T. McNeely	Arts and Science	Battle Mountain
Richard K. Meade	Mines	Arcata, Calif.
Mary S. Millard	Arts and Science	Ely
Morgan H. Mills	Electrical Engineering	Boulder City
Marvin A. Moler	Electrical Engineering	Reno
Murray M. Moler	Arts and Science	Reno
Douglas M. Montgomery	Arts and Science	Beverly Hills, Calif.
Robert H. Montgomery	Arts and Science	Beverly Hills, Calif.
Craig Moore	Mines	Reno
Ross T. Morris	Mechanical Engineering	Tonopah

Mary Virginia Murgotten	Arts and Science	Reno
John Murphy	Arts and Science	Reno
Elizabeth Naismith	Arts and Science	Tonopah
Louis Nash	Arts and Science	Las Vegas
Dean Nelson	Arts and Science	Sparks
Richard J. Nesbitt	Civil Engineering	Reno
William Stuart Neville	Elec. Engineering	Sacramento, Calif.
Frances V. Nichols	Arts and Science	Reno
Norman E. Nichols	Agriculture	Reno
Blaine R. Oakey	Agriculture	Yerington
Edward B. Olds	Mines	Reno
Elizabeth R. Osborn	Arts and Science	Winnemucca
Janet Parish	Arts and Science	Reno
Laverne J. Park	Normal	Gardnerville
Adam M. Patterson	Arts and Science	Dyer
Dorothy A. Pearch	Arts and Science	Woodland, Calif.
Miriam Perry	Home Economics	Yerington
Harry O. Plath	Mines	Reno
Virginia Posvar	Arts and Science	Reno
Kenneth P. Powell	Arts and Science	Las Vegas
William W. Powell	Arts and Science	Lovelock
Annette M. Priest	Arts and Science	Sparks
Marion Ruth Quirk	Normal	Gerlach
Robert L. Quirk	Arts and Science	Gerlach
Robert E. Record	Agriculture	Reno
Melvin W. Redhead	Mines	Boulder City
Jack A. Richardson	Arts and Science	Ely
John E. Robb	Arts and Science	Reno
Gerald A. Roberts	Arts and Science	Tonopah
John E. Robinson	Arts and Science	Reno
Raymond J. Rodriguez	Arts and Science	Reno
Leonard V. Roguin	Arts and Science	Reno
Eugene C. Rollins	Mechanical Engineering	Sparks
C. Oden Romwall	Normal	Lovelock
Edward A. Rose	Arts and Science	Reno
Ruth Rowe	Arts and Science	Reno
Fitzgerald N. Salter	Arts and Science	Reno
Thomas J. Salter	Electrical Engineering	Reno
Alice L. Sauer	Arts and Science	Carson City
Richard P. Sauer	Civil Engineering	Reno
Isabelle Scossa	Arts and Science	Gardnerville
Jessie M. Sellman	Arts and Science	Reno
Wanda L. Shain	Arts and Science	Reno

Thomas B. Shone	Arts and Science	Winnemucca
Frank Showalter	Arts and Science	Reno
Donald Small	Agriculture	Reno
Frances E. Smith	Home Economics	Reno
Jean C. Smith	Arts and Science	Reno
Lillian M. Smith	Arts and Science	Reno
Merle L. Snider	Arts and Science	Winnemucca
Margaret Snyder	Arts and Science	Zephyr Cove
Samuel W. Stark	Arts and Science	Reno
Walter S. States	Arts and Science	Reno
Milton Steinheimer	Mines	Reno
Otto Steinheimer	Agriculture	Reno
Charles Stewart	Arts and Science	Reno
Winthrop Stivers	Arts and Science	Elko
Richard C. Stoddard	Arts and Science	Reno
Sarah L. Swett	Home Economics	Reno
Rebecca Taitel	Normal	Knox, Indiana
Patricia Tarner	Arts and Science	Sparks
Richard L. Taw	Arts and Science	Wells
Edward F. Taylor	Mines	San Leandro, Calif.
Ida D. Testolin	Normal	Fallon
Emily E. Tholl	Arts and Science	Sparks
W. Richard Thormeyer	Mines	Reno
James Trail	Agriculture	Reno
Helen E. Traner	Arts and Science	Reno
Ruth E. Tucker	Arts and Science	Sparks
Margaret A. Turano	Arts and Science	Reno
Elona L. Van Sickle	Arts and Science	Carson City
Harvey Vonsild	Arts and Science	Reno
Mitchell Vuich	Mines	Tonopah
Jay R. Waite	Electrical Engineering	Bunkerville
Kennedy Rose Walker	Arts and Science	Reno
Verrill V. Walker	Mechanical Engineering	Carlin
Billie S. Wallace	Arts and Science	Reno
Milton K. Wallace	Arts and Science	Fallon
Mary Louise Waltenspiel	Home Economics	Reno
Ned B. Westover	Electrical Engineering	Reno
Charles B. White	Arts and Science	Reno
Louis Wiener	Arts and Science	Las Vegas
Melville L. Wilder	Arts and Science	Reno
Joseph T. Williams	Arts and Science	Reno
Carroll E. Williamson	Agriculture	Lovelock
Prescott P. Wilson	Arts and Science	Reno

Samuel G. Wilson	Civil Engineering	Reno
Francis H. Wise	Electrical Engineering	Sparks
Mark L. Yori	Agriculture	Reno
Eric R. Young	Civil Engineering	Reno
Llewellyn A. Young	Electrical Engineering	Lovelock

FRESHMEN

Elaine E. Adams	Arts and Science	Reno
William Lester Agee	Agriculture	Wells
Archie R. Albright	Agriculture	Smith
Lois Adele Aldrich	Arts and Science	Reno
William G. Arbonies	Arts and Science	Winnemucca
George J. Ardans	Civil Engineering	Eureka
James M. Arkell	Civil Engineering	Carson City
John F. Armbruster	Arts and Science	Reno
John E. Armstrong	Electrical Engineering	Reno
Julia M. Arobio	Arts and Science	Lovelock
Theodore J. Ashworth	Agriculture	Ruth
Mike E. Ausich	Arts and Science	Reno
Wilfrid G. Austin	Arts and Science	Jungo
Paul Aznarez	Arts and Science	Wellington
Thomas Bafford	Agriculture	Fallon
Thelma Bagley	Arts and Science	Sparks
Clarence L. Baker	Normal	Lovelock
David M. Barber	Arts and Science	Reno
Charles R. Barnes	Arts and Science	Reno
Theodore G. Barnes	Arts and Science	Reno
Bessie M. Barrett	Normal	Yerington
Thomas T. Beam	Electrical Engineering	Las Vegas
Norrison Beatty	Arts and Science	Reno
Eunice L. Beckley	Arts and Science	Las Vegas
Tom Beko	Arts and Science	Tonopah
Harry Bell	Agriculture	Reno
Jane Bell	Arts and Science	Colfax, Calif.
Basil D. Benedict	Arts and Science	Preston
Bud L. Bernardo	Mechanical Engineering	Reno
Melvin Berning	Arts and Science	Reno
Mary E. Boczkiewicz	Arts and Science	Stewart
Rose I. Boggio	Arts and Science	Paradise Valley
Catherine Booth	Arts and Science	Alameda, Calif.
James W. Borland	Electrical Engineering	Hazen
Louise I. Borsini	Normal	Yerington
John M. Boylan	Arts and Science	Reno

Elizabeth Worden Brace	Arts and Science	Bronxville, N. Y.
Marianne Breier	Arts and Science	Winnemucca
Harriet M. Brinkerhoff	Arts and Science	Sparks
Earl M. Brooks	Mechanical Engineering	Reno
Guy W. Brown	Electrical Engineering	Reno
Helen H. Brown	Arts and Science	Reno
Ralph W. Brown	Civil Engineering	Reno
Primo V. Bugica	Agriculture	Sparks
Verna E. Bullis	Home Economics	Gerlach
George C. Bump	Arts and Science	Loyalton, Calif.
Peter Burfening, Jr.	Mines	Glendale, Calif.
Chester A. Burt	Arts and Science	Goldfield
Henry F. Byars	Arts and Science	Reno
Frances M. Cafferata	Arts and Science	Reno
Margaret Grace Campbell	Arts and Science	Reno
Cecil W. Caple	Mechanical Engineering	Reno
Fay M. Caple	Normal	Reno
Louis J. Capurro	Arts and Science	Reno
Perry G. Carlson	Arts and Science	Winnemucca
William J. Cassinelli	Agriculture	Reno
Charlotte C. Caton	Arts and Science	Reno
Doris E. Chesnutt	Arts and Science	Reno
Alice Jane Chism	Arts and Science	Reno
Harriet Jean Chism	Arts and Science	Reno
Walter C. Christensen	Agriculture	Sparks
J. Joseph Cleary	Arts and Science	Sacramento, Calif.
Mildred L. Cliff	Arts and Science	Carson City
Elaine Cline	Arts and Science	Las Vegas
Mary Margaret Cline	Home Economics	Reno
Mary Loretta Collins	Home Economics	Reno
James H. Colvin	Arts and Science	Fallon
Donald J. Conelly	Arts and Science	Hawthorne
Edmond Conlon	Arts and Science	Reno
Martadel Cooper	Arts and Science	Reno
Andrew D. Crofut	Civil Engineering	Reno
Jack J. Cunningham	Arts and Science	Sparks
William E. Dale	Mech. Engineering	Culver City, Calif.
Elizabeth K. D'Alessandro	Arts and Science	Lovelock
Emma L. Daley	Arts and Science	Truckee, Calif.
Willis Dalzell	Arts and Science	Reno
George F. Dangberg, Jr.	Mechanical Engineering	Gardnerville
Patricia E. Davis	Arts and Science	Reno
Kenneth G. Day	Arts and Science	Sparks

Joseph De Grade	Agriculture	Reno
Benjamin T. de las Llagas	Arts and Science	Reno
Galen G. DeLongchamps	Agriculture	Reno
Leo Demetrakopulas	Arts and Science	Ely
Theodore Demosthenes	Agriculture	Reno
Bernice Denton	Arts and Science	Caliente
Lewis W. Denton	Arts and Science	Caliente
Dorothy Devore	Home Economics	Reno
Mildred C. Dillard	Mechanical Engineering	Reno
Kenneth D. Dimock	Arts and Science	Las Vegas
Dearing D. Dixon	Arts and Science	Reno
Ruth E. Doan	Arts and Science	Sparks
John A. Doane	Civil Engineering	Fallon
Dana E. Dodge	Arts and Science	Fallon
Marlea M. Dodge	Arts and Science	Fallon
Betty Doherty	Arts and Science	Reno
Ruth T. Doolittle	Arts and Science	Boulder City
Duncan M. Dorsey	Arts and Science	Lovelock
Lewis A. Dorworth	Arts and Science	Reno
Lois Downs	Home Economics	Fallon
Leo W. Doyle, Jr.	Arts and Science	Reno
Frank Eastman	Mines	Rand
Forrest K. Eccles	Arts and Science	Reno
Leland B. Eckley	Mines	Mina
Herbert L. Eikelberger	Arts and Science	Sparks
Lois M. Elkins	Arts and Science	Reno
Walter H. Elkins	Mechanical Engineering	Reno
Geneva-Beth Ellis	Normal	Mason
Chester M. Estes	Arts and Science	Battle Mountain
John M. Etchemendy	Mines	Gardnerville
Chester L. Evans	Mines	Fallon
Mary J. Evasovic	Normal	Ruth
Francis L. Everett	Arts and Science	Wellington
Leland E. Fallon	Agriculture	Yerington
George W. Ferrick	Arts and Science	Manhattan
Barbara Ferron	Arts and Science	Las Vegas
Edward R. Folsom	Mechanical Engineering	Reno
George K. Folsom	Arts and Science	Reno
Elmer T. Ford	Mechanical Engineering	Sparks
Harold Foremaster	Arts and Science	Las Vegas
Leo J. Foster, Jr.	Civil Engineering	Reno
Ray H. Frazer	Mines	Reno
Garnet Freeman	Arts and Science	Fallon

George W. Friedhoff, Jr.	Agriculture	Yerington
Thomas W. Friend	Mines	Searchlight
Edward R. Fuetsch	Arts and Science	Reno
Robert B. Fulton	Civil Engineering	Reno
Harry E. Gallaway	Agriculture	Reno
Sherwin F. Garside	Arts and Science	Las Vegas
Charles Wm. Geyer	Mechanical Engineering	Tonopah
Faith M. Gianella	Arts and Science	Reno
Alanson A. Gibeaut	Arts and Science	Carson City
Thelma R. Gillies	Normal	Sparks
Leah L. Giometti	Arts and Science	Dayton
David Goldwater	Arts and Science	Reno
Alfreda Goni	Arts and Science	Dayton
Frank S. Goodner	Electrical Engineering	Reno
Earl L. Gottschalk	Electrical Engineering	Lovelock
Ethel C. Graunke	Arts and Science	Gardnerville
Harry C. Gravelle, Jr.	Arts and Science	Reno
Chester A. Green	Arts and Science	Reno
Marjorie M. Griswold	Arts and Science	Logandale
William R. Grubbs	Arts and Science	Reno
Robert M. Grubic	Arts and Science	Ruth
Nancy J. Hall	Arts and Science	Reno
Newell F. Hancock	Arts and Science	Sparks
Mary E. Handley	Arts and Science	Eureka
Robert Handley	Arts and Science	Eureka
Martin K. Hannifan	Mines	Fallon
Kathleen A. Hansen	Arts and Science	Wells
Jack B. Hanson	Arts and Science	Sparks
George F. Hardman	Mechanical Engineering	Reno
Kathryn N. Harrington	Arts and Science	Tonopah
Raymond D. Harris	Agriculture	Reno
James Hart	Arts and Science	Tonopah
Jack Haslett	Arts and Science	Reno
Clyde E. Healy	Arts and Science	San Francisco, Calif.
Virginia E. Heany	Arts and Science	Sparks
Vitalino G. Hermosa	Civil Engineering	Reno
Homer F. Herz	Arts and Science	Reno
Carl A. Hill	Arts and Science	Tonopah
Helen J. Hill	Arts and Science	Reno
Clinton G. Hinman	Civil Engineering	Battle Mountain
Margery Z. Hiskey	Arts and Science	Austin
Gotfred O. Hoffman	Electrical Engineering	Reno
Norman Hoover	Civil Engineering	Reno

Agnes D. Howell	Arts and Science	Reno
Coleman V. Hughes	Arts and Science	Reno
Margaret A. Hussman	Home Economics	Mina
Jeanette L. Hutchins	Arts and Science	Gardnerville
Lew Hutchins, Jr.	Arts and Science	Reno
Betty Inda	Arts and Science	Reno
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