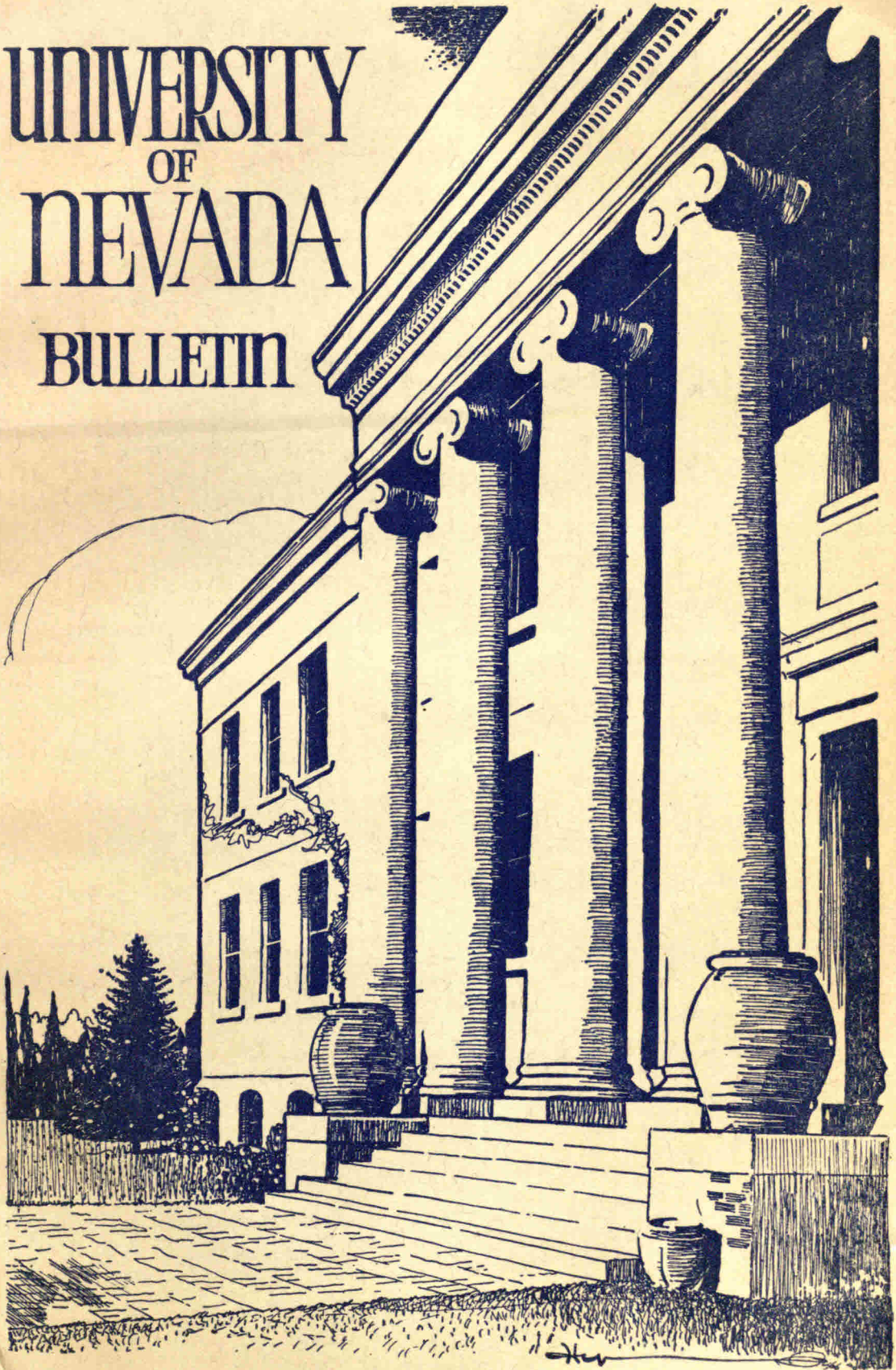
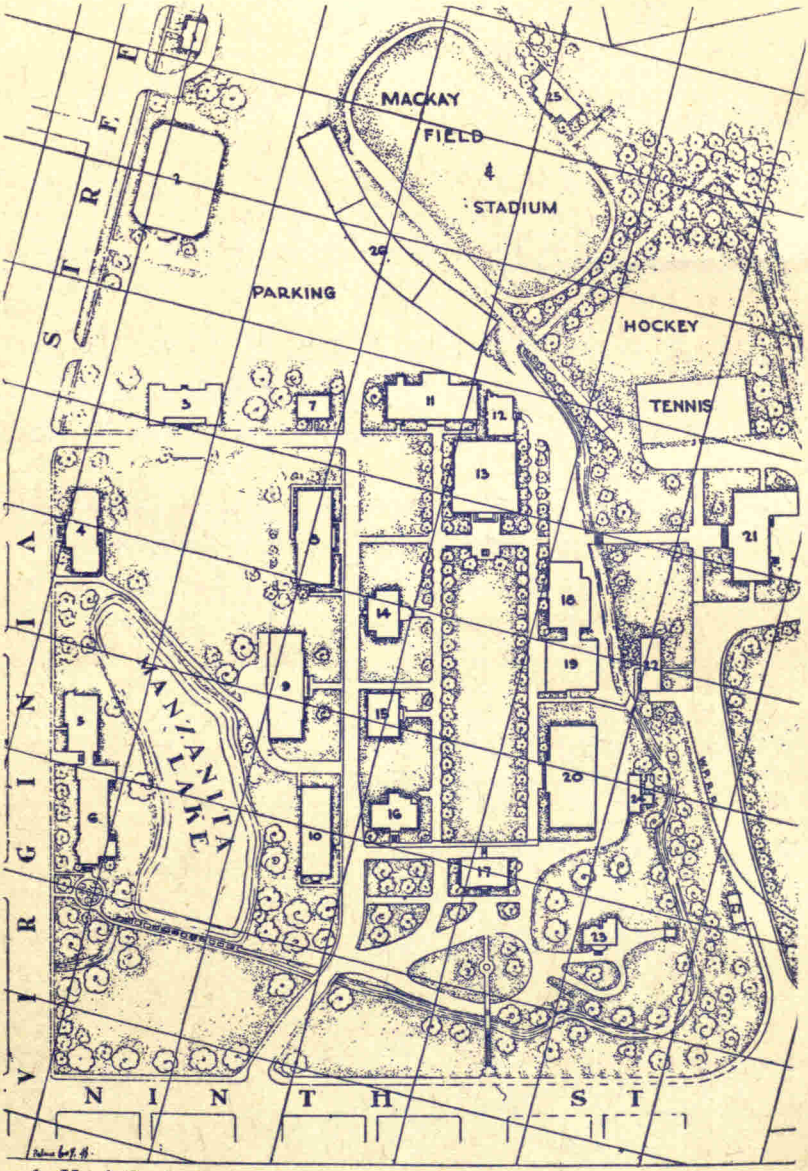
UNIVERSITY OF NEVADA BULLETIN



VOLUME XLIII JUNE 1949 NUMBER 2



1. Hatch Station
2. New Gymnasium
3. Lincoln Hall
4. Artemisia Hall
5. Dining Hall
6. Manzanita Hall
7. Hospital
8. Education Building
9. Agriculture Building
10. Library
11. Old Gymnasium
12. U. S. Bureau of Mines
13. Mackay School of Mines
14. Agricultural Extension Building
15. Journalism Building
16. Stewart Hall
17. Morrill Hall
18. Electrical Building
19. Mechanical Building
20. Mackay Science Hall
21. Engineering Building
22. Veterinary Science Building
23. President's Home
24. Greenhouse
25. Training Quarters
26. Stadium
27. Garage

University of Nevada Bulletin

CATALOGUE

ANNOUNCEMENTS

FOR

1949-1950

WITH

RECORD FOR 1948-1949

VOLUME XLIII JUNE 1949 NO. 2

Published quarterly by the University of Nevada, Reno, Nevada, and entered in the Post Office at Reno, Nevada, as second-class matter under Act of Congress, July 16, 1894. Acceptance for mailing at special rate of postage provided for in section 1103, Act of October 3, 1917, authorized April 21, 1919.

CARSON CITY, NEVADA
STATE PRINTING OFFICE - JACK McCARTHY, SUPERINTENDENT
1949

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OFFICE OF THE
BOARD OF REGENTS, UNIVERSITY OF NEVADA
RENO, NEVADA, June 15, 1949.

To His Excellency, VAIL PITTMAN, *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 1948–1949, 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:

SILAS E. ROSS,
Chairman.

ALICE TERRY, *Secretary.*

1949

JANUARY

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UNIVERSITY CALENDAR

1949–1950

First Semester

September 16	Friday	First meeting of faculty.
September 16–20	Friday-Tuesday	Orientation of new students.
September 16	Friday	Dormitories open.
September 17	Saturday	Required entrance examinations.
September 18	Sunday, 3 p. m.	President's reception and outdoor entertainment for new students.
September 19	Monday, 7 p. m.	Freshman mixer.
September 21	Wednesday	Registration.
September 22	Thursday	Instruction begins.
October 22	Saturday	Homecoming.
October 31	Monday	Admission Day.
November 11	Friday, 8–12 a. m.	Armistice Day.
November 17	Saturday	Grade reports due.
November 23–28	Wednesday, 5 p. m.-Monday, 8 a. m.	Thanksgiving recess.
December 21	Wednesday, 5 p. m.	Christmas vacation begins.
December 21	Wednesday, 5 p. m.	Dormitories close.
January 3	Tuesday	Dormitories open.
January 4	Wednesday, 8 a. m.	Instruction begins.
January 30–February 3	Monday-Friday	Semester examinations.
February 3	Friday, 5 p. m.	Semester closes.
February 4	Saturday, 3 p. m.	Grade reports due.

Second Semester

February 7	Tuesday, 9 a. m.	Mental tests for new students.
February 7	Tuesday, 1 p. m.	Examinations in English for all new students.
February 8	Wednesday	Registration.
February 9	Thursday	Instruction begins.
April 5	Wednesday	Grade reports due.
April 5–12	Wednesday, 5 p. m.-Wednesday, 8 a. m.	Easter recess.
May 6	Saturday	Mackay Day.
May 20	Saturday	Engineer's Day.
May 30	Tuesday	Memorial Day.
June 5–10	Monday-Saturday	Semester examinations.
June 9	Friday	Meeting of Honorary Board of Visitors.
June 9	Friday, 5 p. m.	Second semester closes.
June 10	Saturday evening	Phi Kappa Phi banquet and address.
June 10	Saturday	Dormitories close.
June 11	Sunday	Baccalaureate address.
June 12	Monday	Commencement.
June 14	Wednesday, 9 a. m.	Final grades on file with Registrar.

Summer Session

June 17	Saturday	Registration.
June 19	Monday	First term begins.
July 21	Friday	First term ends.
July 22	Saturday	Registration.
July 24	Monday	Second term begins.
August 25	Friday	Second term ends.

Officers of the University

The Board of Regents

Hon. Chris H. Sheerin (1951) ..... Elko
Hon. John Cahlan (1951) ..... Las Vegas
Hon. Albert Hilliard (1951) ..... Reno
Hon. Silas E. Ross (1953) ..... Reno
Hon. Sam S. Arentz, Jr. (1953) ..... Pioche

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Hon. Silas E. Ross, Chairman ..... Reno
Miss Carolyn M. Beckwith, Secretary Emeritus ..... San Francisco
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Property Committee—Silas E. Ross, Albert Hilliard.
Instruction Committee—Chris H. Sheerin.
Library Committee—Albert Hilliard.
Student-Welfare Committee—John Cahlan, Sam S. Arentz, Jr.

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Hon. I. R. Crandall ..... Las Vegas, Clark County
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Hon. C. J. Littlefield ..... Elko, Elko County
Hon. David Patterson ..... Dyer, Esmeralda County
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Mrs. Everest Hackett ..... Pioche, Lincoln County
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CHARLES H. GORMAN, Honorary M.S., LL.D., Vice President, Comptroller, and Treasurer.
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JAMES J. HILL, M.A., B.S. in L.S., Director of Libraries.
JOSEPH D. LAYMAN, B.L., Librarian Emeritus.
WALTER S. PALMER, E.M., Curator of the Mackay Museum.
J. B. ZADRA, B.S., Met., Supervising Engineer, United States Bureau of Mines Experiment Station.
ROBERT S. GRIFFIN, Ph.D., Dean of Men; Coordinator of Veterans Affairs.
MISS ELAINE MOBLEY, M.A., Dean of Women.
MERYL W. DEMING, Ph.D., Director of Admissions; Director of Correspondence Study.
PERRY HAYDEN, B.A., Assistant to the Comptroller.
CLARENCE E. BYRD, M.A., Administrative Assistant to the Dean of Agriculture.
LEGRAND WALKER, B.S., Manager, University Farms.
CARL M. HORN, Superintendent of Maintenance.
MRS. BELLE DREW, Hostess of Artemisia Hall.
MRS. NELLIE C. PALMER, Hostess of Manzanita Hall.
MRS. NELLIE WALDEN NELSON, Director of Dining Hall.

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FREDRICK WOOD, Ph.D., Dean of the College of Arts and Science.
STANLEY G. PALMER, M.E., Dean of the College of Engineering.
CECIL W. CREEL, Agr.D., Dean of Agriculture.
FRED W. TRANER, Ph.D., Dean of the School of Education.
JAY A. CARPENTER, E.M., Director of the Mackay School of Mines.
HAROLD N. BROWN, Ed.D., Director of Summer Sessions.
V. E. SCOTT, M.S., Director of Residence Teaching in Agriculture.

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E. MAURICE BEESLEY, Ph.D., Chairman of the Department of Mathematics.
HOWARD BLAIR BLODGETT, C.E., Chairman of the Department of Civil Engineering.
JAY ARNOLD CARPENTER, E.M., Chairman of the Department of Mining Engineering.
EPHRAIM EDWARD ERICKSEN, Ph.D., Chairman of the Department of Philosophy.
VINCENT P. GIANELLA, Ph.D., Chairman of the Department of Geology.
ROBERT MARK GORRELL, Ph.D., Chairman of the Department of English.
JOHN R. GOTTARDI, M.A., Chairman of the Department of Foreign Languages.
CHARLES ROGER HICKS, Ph.D., Chairman of the Department of History and Political Science.
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RALPH A. IRWIN, Ph.D., Chairman of the Department of Psychology.
SIGMUND W. LEIFSON, Ph.D., Chairman of the Department of Physics.

EDWARD WALTON LOWRANCE, Ph.D., Chairman of the Department of Biology.

JOHN EDWARD MARTIE, M.P.E., Chairman of the Department of Physical Education.

JOE EUGENE MOOSE, Ph.D., Chairman of the Department of Chemistry.

WALTER S. PALMER, E.M., Chairman of the Department of Metallurgy.

GILBERT E. PARKER, C.E., Colonel, U. S. Army, Chairman of the Department of Military Science and Tactics.

THEODORE H. POST, M.A., Chairman of the Department of Music.

IRVING JESSE SANDORF, M.S., Chairman of the Department of Electrical Engineering.

EARL W. SHEETS, D.Agr., Acting Chairman of the Department of Animal Husbandry.

J. CRAIG SHEPPARD, B.F.A., Chairman of the Department of Art.

MILDRED SWIFT, M.S., Chairman of the Department of Home Economics.

LOUIS TITUS, M.S., Chairman of the Department of Agronomy.

FRED W. TRANER, Ph.D., Chairman of the Department of Education.

JAMES R. VAN DYKE, M.E., Chairman of the Department of Mechanical Engineering.

MILAN J. WEBSTER, Ph.D., Chairman of the Department of Economics, Business and Sociology.

ELDON WITTWER, Ph.D., Chairman of the Department of Agricultural Economics.

Public Service Division—

WALTER S. PALMER, E.M., Director of the State Analytical Laboratory.

EDWARD RECORDS, V.M.D., Director of Veterinary Control Service.

WAYNE B. ADAMS, B.S., Commissioner of Food and Drugs Control and Weights and Measures.

SAMUEL BRADFORD DOTEN, M.A., Director of the Agricultural Experiment Station, Emeritus.

CECIL W. CREEL, Agr.D., Director of Agricultural Extension.

JAY A. CARPENTER, E.M., Director of State Bureau of Mines.

C. E. FLEMING, B.S.A., Director of the Agricultural Experiment Station.

Hospital Staff—

ROBERT LOCKE, M.D., Physician.

MISS MARY ROTTER, R.N., Head Nurse.

MRS. J. B. LYNCH, Assistant.

Library Staff—

MRS. EDITH J. HOLMES, B.A., Order Librarian.

MISS CLARE LOUISE JOHNSON, B.A., Cataloguer.

MISS GEORGIA ANNE MERSHON, B.A., Reference Librarian.

MRS. JULIA HURLBUT ENCK, B.S., Cataloging Assistant.

MRS. MARY C. EDWARDS, B.S., General Assistant.

MISS MARY K. NOBLE, B.A., Clerical Assistant.

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MISS ALICE TERRY, Secretary to the President.

MRS. MELBA MCFARLAND, Stenographer, President's Office.

MRS. RAE ELDER PETERSEN, Clerk-Typist, President's Office.

MRS. BEVERLY BAKER, Stenographer, President's Office.
MRS. WILMA BLACK, Duplicating Machine Operator.
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MISS ESTHER ROMANO, Clerk, Comptroller's Office.
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MRS. GENEVIEVE YORI, Clerk, Comptroller's Office.
MRS. RAMONA ROBUSTELLINI, Clerk, Comptroller's Office.
MRS. MARGARET HEINEN, Clerk, Registrar's Office.
MRS. MARIAN HANSEN, Clerk, Registrar's Office.
MISS PATRICIA MCAVOY, Clerk, Registrar's Office.
MRS. JANE CAMMACK, Clerk, Registrar's Office.
MRS. ELIZABETH LEEDS SCOTT, Secretary to the Dean of Men.
MISS VIRGINIA HAMILTON, Clerk-Typist, Dean of Men's Office.
MRS. GERALDINE GOULD, Secretary to the Director of Correspondence Study.
MRS. PHOEBE SWETT, Secretary, College of Agriculture.
MRS. MARY LUE CARLSEN, Secretary to the Dean of Engineering
MRS. ALDA MURUSKY, Secretary to the Dean of Women.
MRS. PATRICIA HERRICK, Secretary to the Dean of Arts and Science.
MRS. IRENE DAWSON, Secretary to the Director of Admissions.
MRS. BONNIE CLARKSON, Secretary, School of Education.

Associated Students—

EUGENE MASTROIANNI, B.S., Graduate Manager.
MISS ERMA CAPURRO, Secretary to the Graduate Manager.

Alumni—

REX G. DANIELS, B.A., Executive Secretary.
FRANCES FANNING, Secretary.

Y. W. C. A.—

MISS JEAN HOWDEN, B.A., Executive Secretary.

THE UNIVERSITY FACULTY*

President

JOHN OHLEYER MOSELEY, M.A., A.B. (Oxon), A.M. (Oxon), LL.D., President.

A.B., Austin College, 1912; A.M., University of Oklahoma, 1916; B.A., Oxford (England), 1922; M. A., 1928; LL.D., Austin College, 1936. (1944)

WALTER ERNEST CLARK, Ph.D., LL.D., President Emeritus.

B.A., Ohio Wesleyan University, 1896; M.A., 1898; Ph.D., Columbia University, 1903; LL.D., Ohio Wesleyan University, 1918; LL.D., University of Nevada, 1938; Chevalier, Legion d'Honneur, 1937. (1917–1938)

Vice President

CHARLES H. GORMAN, Honorary M.S., LL.D., Vice President, Comptroller and Treasurer.

Honorary M.S., University of Nevada, 1939; LL.D., 1944. (1911–1941)

Faculty Emeriti

FREDERICK L. BIXBY, C.E., Professor of Civil Engineering, Emeritus.

B.S., University of California, 1905; C.E., University of Nevada, 1918. (1919–1947)

HORACE PRENTISS BOARDMAN, C.E., Professor of Civil Engineering, Emeritus.

B.S., University of Wisconsin, 1894; C.E., 1911. (1907–1939)

CHARLES LEROY BROWN, M.A., Associate Professor of Biology, Emeritus.

B.A., University of Nevada, 1912; M.A., 1913. (1918–1938)

JAMES EDWARD CHURCH, Ph.D., LL.D., Professor of the Classics, Emeritus.

A.B., University of Michigan, 1892; Ph.D., University of Munich, 1901; LL.D., University of Nevada, 1937. (1892–1939)

PETER FRANDSEN, A.M., LL.D., Professor of Biology, Emeritus.

A.B., University of Nevada, 1895; A.B., Harvard University, 1898; A.M., 1899; LL.D., University of Nevada, 1924. (1900–1942)

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

A.B., University of Chicago, 1899. (1913–1944)

JOSEPH D. LAYMAN, B.L., Librarian, Emeritus.

B.L., University of California, 1888. (1907–1929)

*The date following each description designates the time of original appointment to the faculty of the University. (Dates of resignations and reappointments are not indicated.) A second date indicates the beginning of service in present rank when this differs from the date of original appointment.

PHILIP A. LEHENBAUER, Ph.D., Professor of Horticulture, Emeritus.

A.B., Westminster College, 1907; A.M., Millikin University, 1909; Ph.D., University of Illinois, 1914. (1914–1947)

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

B.S., Columbia University, 1919; M.A., 1923. (1920–1942)

KATHERINE RIEGELHUTH, A.M., Professor of English, Emeritus.

B.A., University of Nevada, 1897; A.M., Columbia University, 1913. (1905–1943)

ELSA SAMETH, M.S., Professor of Physical Education for Women, Emeritus.

A.B., Cornell University, 1911; B.S., Columbia University, 1911; M.S., University of Wisconsin, 1922. (1913–1948)

VERNER E. SCOTT, M.S., Professor of Dairy and Poultry Husbandry, Emeritus.

B.S., University of Wisconsin, 1911; M.S., University of Nevada, 1933. (1912–1948)

REUBEN CYRIL THOMPSON, M.A., LL.D., Professor of Philosophy, Emeritus.

B.A., McMinnville College, 1899; B.A., Harvard University, 1901; M.A., 1902; LL.D., Linfield College, 1938. (1908–1948)

ROBERT STEWART, Ph.D., Professor of Agronomy, Emeritus.

B.S., Utah Agricultural College, 1902; Ph.D., University of Illinois, 1909. (1920–1943)

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

B.Di., Iowa State Teachers' College, 1893; B.A., Stanford University, 1901; LL.D., University of Nevada, 1924. (1899–1940)

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

B.L., Berea University, 1907; A.B., Stanford University, 1909; A.M., 1910; Ph.D., University of Chicago, 1916. (1915–1948)

Faculty

PHILIP GERALD AUCHAMPAUGH,[1] Ph.D., Associate Professor of History and Political Science.

B.A., New York State College for Teachers, 1920; M.A., Syracuse University, 1921; Ph.D., Clark University, 1924. (1941–1944)

E. MAURICE BEESLEY, Ph.D., Associate Professor of Mathematics.

A.B., Lafayette College, 1936; Sc.M., Brown University, 1938; Ph.D., 1943. (1940–1944)

[1]Died January 30, 1949.

WILLIAM DWIGHT BILLINGS, Ph.D., Associate Professor of Biology.
A.B., Butler University, 1933; M.A., Duke University, 1935; Ph.D., 1936. (1938–1943)

GILBERT BRUCE BLAIR, A.M., Associate Professor of Physics and Astronomy.
A.B., Tabor College, 1902; A.M., Washburn College, 1904. (1919–1935)

HOWARD BLAIR BLODGETT, C.E., Professor of Civil Engineering.
B.S., University of Arizona, 1928; M.S., 1929; C.E., 1933. (1947)

CHARLES REAGAN BREESE, B.S., Instructor in Civil Engineering.
B.S., University of Nevada, 1948. (1948)

PAUL WALTER BREWER, M.A., Instructor in Psychology.
B.A., University of Denver, 1947; M.A., 1948. (1948)

FAYE BRIGGS, B.S., Instructor in Physical Education for Women.
B.S., Utah State Agricultural College, 1949. (1949)

GEORGE A. BROTEN, Ed.M., Instructor in Physical Education for Men.
B.S., Oregon State College, 1940; Ed.M., 1947. (1948)

HAROLD N. BROWN, Ed.D., Professor of Education and Director of Summer Sessions.
B.S., Kansas State Teachers College, 1923; A.M., Stanford University, 1927; Ed.D., University of California, 1935. (1930–1942)

JOHN RAYMOND BUTTERWORTH,[1] M.A., Instructor in English.
B.A., Syracuse University, 1933; M.A., University of Southern California, 1938. (1940)

JAY ARNOLD CARPENTER, E.M., Director of Mackay School of Mines; Professor of Mining Engineering.
B.S., University of Nevada, 1907; E.M., 1911. (1908–1939)

OTIS B. CARRICK, T/Sgt., U. S. Air Force; Instructor in Military Science and Tactics.
(1946)

BRUCE C. CATOR, B.S., Lt. Colonel, U. S. Air Force, Assistant Professor of Military Science and Tactics for Air.
B.S., United States Military Academy, 1941. (1947)

LEONARD EDWIN CHADWICK,[1] B.S., Assistant Professor of Economics, Business, and Sociology.
B.S., University of California, 1935. (1939–1942)

[1]Absent on leave.

BENJAMIN FRANKLIN CHAPPELLE,[1] Ph.D., Professor of Foreign Languages.

A.B., Dickinson College, 1908; A.M., 1911; Diplomé de Alliance Francaise, University of Poitiers, 1914; Ph.D., University of Pennsylvania, 1917; Officer d'Académie, 1934. (1917–1922)

DONALD G. COONEY, B.S., Instructor in Biology.

B.S., University of Nevada, 1947. (1948)

BERTRAND FRANKLIN COUCH, Instructor in Mine Accounting.

(1924)

CECIL W. CREEL, B.S., D.Agr., Dean of Agriculture.

B.S., University of Nevada, 1911; D.Agr., University of Maryland, 1939. (1919–1945)

ALEX DANDINI, D.S.L., Assistant Professor of Foreign Languages.

D.S.L., University of Grenoble, 1921; H.E., University of Turin, 1923. (1946–1947)

E. A. DAVIS, M.A., Instructor in Mathematics.

A.B., University of California, 1940; M.A., 1944. (1947)

MAURICE ROLLAND DEMERS, M.A., Instructor in Mathematics.

B.S., University of Michigan, 1935; M.A., University of Buffalo, 1937. (1948)

MERYL WILLIAM DEMING, Ph.D., Professor of Chemistry.

B.A., University of Oregon, 1923; M.A., 1925; Ph.D., University of Washington, 1928. (1929–1946)

LARAINE ERNEST DUNN, Ph.D., Associate Professor of Soils.

B.S., Oregon State College, 1929; M.S., Iowa State College, 1931; Ph.D., Washington State College, 1942. (1947)

MAXWELL DEAN EDWARDS, A.M., Instructor in English.

A.B., Simpson College, 1919; A.M., University of Illinois, 1926. (1946)

PAUL RICHARD ELDRIDGE, Ph.D., Associate Professor of English.

B.A., University of Oklahoma, 1919; M.A., Harvard University, 1922; Ph.D., University of Iowa, 1942. (1945)

JOHN K. ELLIOTT, M/Sgt., U. S. Army; Instructor in Military Science and Tactics.

(1947)

CHARLES BRADFORD ELLIS, M.B.A., Assistant Professor of Economics, Business, and Sociology.

B.S., Harvard University, 1939; M.B.A., Wharton School of Commerce, University of Pennsylvania, 1944. (1948)

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[1]Died December 22, 1948.

STANTON L. FICKEL, Captain, U. S. Army; Assistant Professor of Military Science and Tactics.
A.B., University of California, 1946. (1948)

SETH A. FOSTER, M/Sgt., U. S. Air Force; Instructor in Military Science and Tactics.
(1948)

ARTHUR E. GARDNER, M/Sgt., U. S. Air Force; Instructor in Military Science and Tactics.
(1948)

ROBERT J. GARNETT, Sgt., U. S. Army; Instructor in Military Science and Tactics.
(1947)

VINCENT P. GIANELLA, Ph.D., Professor of Geology.
B.S., Oregon Agricultural College, 1910; B.S., Oregon School of Mines, 1911; M.S., University of Nevada, 1920; Ph.D., Columbia University, 1937. (1923–1935)

ROBERT MARK GORRELL, Ph.D., Assistant Professor of English.
A.B., Cornell University, 1936; Ph.D., 1939. (1945)

JOHN R. GOTTARDI, M.A., Associate Professor of Foreign Languages.
B.A., University of Nevada, 1921; M.A., 1926. (1922–1930)

MICHAEL GRABAN, A.B., Instructor in Journalism.
A.B., Ohio University, 1931. (1948)

EARL J. GRADY, M/Sgt., U. S. Army; Instructor in Military Science and Tactics.
(1946)

JACK BERTRAN GRAFTON, M.S., Instructor in Psychology.
B.A., University of Washington, 1949; M.S., 1948. (1948)

LEWIS H. GRAY, Captain, U. S. Air Force, Assistant Professor of Military Science and Tactics.
(1948)

ROBERT STUART GRIFFIN, Ph.D., Dean of Men; Professor of English.
B.S., Oregon State College, 1928; M.A., University of Southern California, 1935; Ph.D., 1941. (1928–1946)

IRA E. GUNN, JR., M.A., Instructor in Economics, Business, and Sociology.
B.S., Howard College, 1945; M.A., University of North Carolina, 1947. (1948)

CLAUDE W. HAMMOND, B.S., Instructor in Metallurgy.
B.S., University of Nevada, 1931. (1947)

JAY M. HANSEN, Ph.D., Assistant Professor of Physics.
B.S., University of Utah, 1941; M.A., Columbia University, 1944; Ph.D., 1947. (1947)

EVERETT WHITE HARRIS, Ph.D., Associate Professor of Mechanical Engineering.
B.S., University of Nevada, 1926; S.M., Massachusetts Institute of Technology, 1932; Ph.D., University of California, 1941. (1938–1944)

FERDINAND HELM, JR., M.A., Instructor in English.
A.B., Union College, 1937; M.A., Columbia University, 1938. (1948)

HAROLD JOHN HENDRIKS, M.S., Assistant Professor of Electrical Engineering.
B.S., Iowa State College, 1940; M.S., 1941. (1948)

CHARLES ROGER HICKS, Ph.D., Professor of History and Political Science.
A.B., Clark University, 1915; A.M., Stanford University, 1922; Ph.D., Clark University, 1931. (1924–1931)

ALFRED LESLIE HIGGINBOTHAM, A.M., Professor of Journalism.
A.B., Oberlin College, 1920; A.M., 1920. (1923–1936)

JAMES JULIAN HILL, M.A., B.S. in L.S., Director of Libraries and Professor of Library Science.
B.A., University of Oklahoma, 1915; M.A., 1915; B.S., University of Illinois, 1929. (1944)

FRANK HINMAN, JR., M.A., Instructor in Philosophy.
B.A., University of Utah, 1942; M.A., 1948. (1948)

JAMES MARSHALL HOYT, M.B.A., Instructor in Economics, Business, and Sociology.
B.S., Miami University, 1947; M.B.A., Indiana University, 1948. (1948)

ROBERT A. HUME, Ph.D., Associate Professor of English.
A.B., Stanford University, 1929; LL.B., 1932; M.A., 1935; Ph.D., Cornell University, 1940. (1944)

AUSTIN E. HUTCHESON, Ph.D., Associate Professor of History and Political Science.
B.A., Reed College, 1925; M.A., University of California, 1929; Ph.D., University of Pennsylvania, 1937. (1940–1943)

FRANK EUGENE INMAN, B.S., Instructor and Instrument Maker in Physics.
B.S., University of Nevada, 1941. (1946)

ERNEST L. INWOOD,[1] Ph.D., Professor of Economics, Business, and Sociology.

B.A., University of Nevada, 1927; Ph.D., University of California, 1935. (1930–1941)

RALPH A. IRWIN, Ph.D., Professor of Psychology.

B.S., Kansas State Agricultural College, 1928; M.S., 1929; Ph.D., Ohio State University, 1938. (1929–1944)

KEISTE JANULIS, M.S., Instructor in Journalism.

B.A., Lehigh University, 1938; M.S., Columbia University, 1941. (1946)

PAUL HOLME JENSEN, Ph.D., Assistant Professor of Education.

B.A., Dana College, 1933; B.D., Midland College, 1935; Ph.D., University of North Dakota, 1938. (1947–1948)

SHERMAN D. JOHNSON, M/Sgt., U. S. Army; Instructor in Military Science and Tactics.

(1946)

HELEN JOSLIN, Instructor in Art.

(1939)

LAWTON B. KLINE,[1] M.A., Assistant Professor of Foreign Languages.

B.A., University of Nevada, 1926; M.A., 1928. (1931–1937)

CHARLTON G. LAIRD, Ph.D., Professor of English.

B.A., University of Iowa, 1925; M.A., 1927; Ph.D., Stanford University, 1940. (1943–1945)

IRA LA RIVERS, Ph.D., Assistant Professor of Biology.

B.S., University of Nevada, 1937; Ph.D., University of California, 1948. (1948)

PHILIP A. LAYLANDER, B.A., Instructor in Geology.

B.A., University of California, 1940. (1948)

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

B.S., North Dakota State Agricultural College, 1922; Ph.D., University of California, 1925. (1925–1935)

EDWARD WALTON LOWRANCE, Ph.D., Associate Professor of Biology.

A.B., University of Utah, 1930; M.A., 1932; Ph.D., Stanford University, 1937. (1938–1943)

PERRY B. MCELROY, Captain, U. S. Air Force; Assistant Professor of Military Science and Tactics.

(1946)

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[1]Absent on leave.

ALICE B. MARSH, M.S., Assistant Professor of Home Economics.
B.S., Oregon State College, 1914; Professional Degree, 1933; M.S., Kansas State College, 1934; M.A., Ohio University, 1936. (1936–1937)

GORDON H. MARSH, B.A., Instructor in Foreign Languages.
B.A., Columbia College, 1936. (1947)

JOHN EDWARD MARTIE, M.P.E., Professor of Physical Education.
B.S., Central Missouri State Teachers College, 1923; M.P.E., Y.M.C.A. College, Springfield, Massachusetts, 1930. (1923–1929)

A. V. MARTIN, Ph.D., Assistant Professor of Mathematics.
A.B., Presbyterian College, 1936; Ph.D., Duke University, 1940. (1947)

LAURENCE EARLE MASCOTT, M.A., Instructor in English.
A.B., University of Michigan, 1941; M.A., 1948. (1948)

DALE LLOYD MCLEOD, B.S., Instructor in Electrical Engineering.
B.S., North Dakota State College, 1948. (1949)

CHRISTIAN W. F. MELZ, Ph.D., Associate Professor of Foreign Languages.
B.A., University of California, 1931; M.A., 1933; Ph.D., 1935. (1941–1947)

CHARLES E. MENTZER, M/Sgt., U. S. Army; Instructor in Military Science and Tactics.
(1948)

WILLIAM CHARLES MILLER, Ph.D., Associate Professor of English.
B.S., University of Southern California, 1931; M.A., 1932; Ph.D., 1947. (1932–1947)

JOHN MILSTEAD, M.A., Instructor in English.
B.A., University of New Mexico, 1945; M.A., University of Iowa, 1947. (1948)

H. ELAINE MOBLEY, M.A., Dean of Women.
B.S., University of Oregon, 1926; M.A., University of California, 1947. (1946)

JOE EUGENE MOOSE, Ph.D., Professor of Chemistry.
A.B., Southern Methodist University, 1917; M.S., University of Illinois, 1922; Ph.D., 1924. (1945)

R. J. MORRIS, Ph.D., Instructor in Chemistry.
B.S., University of Idaho, 1936; M.S., 1938; Ph.D., Ohio State University, 1947. (1947)

FRANCIS CLARK MURGOTTEN, Ph.D., Professor of Foreign Languages.
A.B., Stanford University, 1901; A.M., 1908; Ph.D., Columbia University, 1924. (1922–1926)

MARJORIE JEAN OLSEN,[1] B.S., Instructor in Economics, Business, and Sociology.

B.S., University of Nevada, 1948. (1948)

STANLEY G. PALMER, M.E., Dean of the College of Engineering and Professor of Electrical Engineering.

B.S., University of Nevada, 1909; M.E., Cornell University, 1910. (1915–1942)

WALTER S. PALMER, E.M., Professor of Metallurgy.

B.S., University of Nevada, 1905; E.M., Columbia School of Mines, 1907. (1910–1917)

WALTER STANLEY PALMER, JR., M.B.A., Instructor in Economics, Business, and Sociology.

B.A., University of Nevada, 1937; M.B.A., Stanford University, 1941. (1946)

GILBERT E. PARKER, C.E., Colonel, U. S. Army; Professor of Military Science and Tactics.

C.E., Cornell University, 1917. (1946)

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

B.A., University of Nevada, 1929; A.M., Brown University, 1932. (1931–1935)

ROBERT C. POOLMAN, B.S., Assistant Professor of Civil Engineering.

B.S., California Institute of Technology, 1945. (1946–1948)

JESSIE P. POPE, M.A., Associate Professor of Home Economics.

B.S., University of Nebraska, 1913; M.A., Columbia University, 1926. (1918–1929)

THEODORE H. POST, M.A., Professor of Music; Director of Music.

New England Conservatory of Music, Certificate, 1918; A.B., Washburn College, 1922; M.A., Harvard University, 1926. (1927)

MARJORIE ANN PRICE, A.B., Instructor in Physical Education for Women.

A.B., Arizona State College, 1947. (1947)

ROBERT PRINCE, B.S., Assistant Professor of Geological Engineering.

B.S., University of Nevada, 1931. (1948)

JOHN PARK PUFFINBARGER, Ed.M., Assistant Professor of Education.

B.S. in Education, Kansas State Teachers College, 1926; Ed.M., University of Oklahoma, 1933. (1937)

JEANETTE CAMERON RHODES, B.A., Registrar.

B.A., University of Nevada, 1904. (1937)

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[1]Resigned February 1, 1949.

GALE LEE RICHARDS, M.A., Assistant Professor of English.
B.A., University of Akron, Ohio, 1940; M.A., University of Iowa, 1942. (1948)

FRANK RICHARDSON, Ph.D., Assistant Professor of Biology.
B.A., Pomona College, 1934; Ph.D., University of California, 1939. (1941–1943)

JOSEPH H. ROBERTSON, Ph.D., Associate Professor of Range Management and Agronomy.
A.B., Peru State Teachers College (Nebraska), 1928; M.Sc., University of Nebraska, 1932; Ph.D., 1939. (1947)

JAMES DUDLEY ROGERS, B.S., Instructor in Civil Engineering.
B.S., Texas Agricultural and Mechanical College, 1940. (1949)

EDITH M. RUEBSAM, M.A., Associate Professor of Education.
B.A., Columbia University, 1921; M.A., University of California, 1934. (1925–1935)

RUTH IRENE RUSSELL, M.S., Assistant Professor of Physical Education for Women.
B.S., University of Colorado, 1937; M.S., University of Oregon, 1939. (1939–1947)

JACK TORNEY RYAN, Superintendent of Shops and Supervisor of Shop Instruction.
(1931–1944)

IRVING JESSE SANDORF, M.S., Professor of Electrical Engineering.
B.S., University of Michigan, 1923; M.S., University of Nevada, 1931. (1928–1944)

JAY SCHUMACHER, B.S., Part-time Instructor in Mechanical Engineering.
B.S., University of Nevada, 1926. (1946–1947)

CHESTER M. SCRANTON, M.A., Associate Professor of Physical Education for Men.
B.A., University of Nevada, 1924; M.A., 1928. (1928–1936)

BERTON JAMES SCULL, M.S., Instructor in Geology.
B.S., University of Oklahoma, 1946; M.S., 1947. (1949)

GEORGE WALLACE SEARS, Ph.D., Professor of Chemistry.
B.S., Drury College, 1908; M.S., University of Illinois, 1911; Ph.D., 1914. (1917–1924)

EDWIN S. SEMENZA, M.A., Instructor in English.
B.A., University of Nevada, 1930; M.A., University of Southern California, 1934. (1946–1947)

EARL W. SHEETS, D.Agr., Acting Professor of Animal Husbandry.

B.S., University of West Virginia, 1911; M.S., University of Maryland, 1914; D.Agr., 1933. (1949)

J. CRAIG SHEPPARD, B.F.A., Assistant Professor of Art.

B.F.A. in Painting, University of Oklahoma, 1938; B.F.A. in Sculpture, 1939. (1947)

WILLIAM T. SIDELL, M/Sgt., U. S. Army; Instructor in Military Science and Tactics.

(1948)

JAMES COLEMAN SMEE, B.S., Lt. Colonel, U. S. Army; Assistant Professor of Military Science and Tactics.

B.S., University of Kentucky, 1938. (1946)

CLAUDE CARSON SMITH, Ph.D., Professor of History and Political Science.

A.B., Carson-Newman College, 1921; M.A., University of Oklahoma, 1924; Ph.D., Stanford University, 1947. (1929–1948)

WILLIAM I. SMYTH, E.M., Professor of Metallurgy and Mining.

B.S., University of Nevada, 1914; E.M., 1927. (1925–1947)

JOHN WILLIAM SUTTON, Ph.D., Instructor in Chemistry.

A.B., Central College, 1944; M.A., Stanford University, 1946; Ph.D., 1948. (1948)

MILDRED SWIFT, M.S., Professor of Home Economics.

B.S., Russell Sage College, 1927; M.S., Cornell University, 1930. (1942)

ROBERT TATE, M.A., Assistant Professor of Music.

Yale University School of Music, Certificate, 1929; B.S., Teachers College, Columbia University, 1941; M.A., 1944. (1947)

JOHN H. THOMPSON, M.A., Assistant Professor of Geology and Geography.

A.B., Clark University, 1941; M.A., University of Colorado, 1943. (1947)

WILLIAM FRANCIS THOMPSON, JR., B.S., Instructor in Geology and Geography.

B.S., University of Washington, 1939. (1948)

LOUIS TITUS, M.S., Professor of Farm Mechanics.

B.S., University of Nevada, 1924; M.S., Cornell University, 1931. (1933–1947)

FRED W. TRANER, Ph.D., Dean of the School of Education; Professor of Education.

A.B., Beloit College, 1908; M.A., University of California, 1920; Ph.D., 1930. (1915–1937)

ALFRED OWEN ULPH, Ph.D., Assistant Professor of History and Political Science.
A.B., Stanford University, 1935; M.A., 1940; Ph.D., 1947. (1948)

JAMES R. VAN DYKE, M.E., Professor of Mechanical Engineering.
B.S., Pennsylvania State College, 1918; M.E., 1922.

WILLIAM VAN TASSEL, B.S., Instructor in Mechanical Engineering.
B.S., University of Nevada, 1943. (1947)

MILAN J. WEBSTER, Ph.D., Professor of Economics, Business, and Sociology.
B.E., Nebraska Normal College, 1908; B.A., University of Nevada, 1929; M.A., 1931; Ph.D., University of Colorado, 1934. (1929–1944)

ELIZABETH O'NEILL WILKIE, Ph.D., Instructor in English.
B.S., Wilson College, 1938; M.A., Yale University, 1939; Ph.D., Johns Hopkins University, 1941. (1946–1947)

LORING RIDER WILLIAMS, Ph.D., Associate Professor of Chemistry.
B.S., West Virginia Wesleyan, 1927; M.S., West Virginia University, 1932; Ph.D., University of Illinois, 1939. (1939–1944).

FREDERICK WESTON WILSON,[1] M.S., Professor of Animal Husbandry.
B.S., Kansas State Agricultural College, 1905; M.S., University of Illinois, 1913. (1914)

ELDON WITTWER, Ph.D., Professor of Agricultural Economics.
B.S., University of Nevada, 1922; Ph.D., Cornell University, 1930. (1938–1939)

FREDRICK WOOD, Ph.D., Dean of the College of Arts and Science; Professor of Mathematics.
A.B., University of Wisconsin, 1915; M.A., 1916; Ph.D., 1923. (1932–1938)

R. EDWIN WORLEY, Ph.D., Assistant Professor of Physics.
B.A., Pomona College, 1931; Ph.D., University of California, 1940. (1948)

Assistants, Fellows, and Lecturers

HARRY DANEEL ANDERSON, B.A., Assistant in History.
B.A., Stanford University, 1948. (1949)

WELD ARNOLD,[2] A.B., Lecturer in Civil Engineering.
A.B., Harvard University, 1918. (1947)

FRANCES BAGLEY, Ph.B., Lecturer in Economics, Business, and Sociology.
Ph.B., Loyola University, 1931. (1948)

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[1]Died December 7, 1948. [2]Resigned February 1, 1949.

RICHARD CARLTON BERNHARD, Ph.D., Lecturer in Business, Economics, and Sociology.
B.A., Reed College, 1932; M.Sc., University of London, 1936; Ph.D., Northwestern University, 1939. (1948)

MABEL MARIANI BROWN, B.A., Assistant in English and Foreign Languages.
B.A., University of Nevada, 1928. (1946)

VIRGINIA CARROLL, M.A., Assistant in Home Economics.
B.S., Columbia University, 1927; M.A., 1933. (1946)

CHARLOTTE FERRIS CARTER, B.S., Assistant in Mathematics.
B.S., University of Nevada, 1946. (1946)

MARY ANCHO DAVIS, B.A., Assistant in Foreign Languages.
B.A., University of Nevada, 1946. (1946)

EPHRAIM EDWARD ERICKSEN, Ph.D., Lecturer in Philosophy.
B.A., Brigham Young College, 1908; Ph.D., University of Chicago, 1918. (1948)

ROBERT W. HOUSER, B.A., Assistant in Mathematics.
B.A., Oberlin College, 1947. (1947)

LAURABEL HUME, M.A., Assistant in English.
B.A., Scripps College, 1933; M.A., Stanford University, 1935. (1947)

MILDRED KLAUS, M.S., Assistant in Secondary Education.
B.A., University of Nevada, 1926; M.S., University of Southern California, 1946. (1941)

ROSE NANNINI MEREDITH, B.A., Assistant in Foreign Languages.
B.A., University of Nevada, 1947. (1947)

RICHARD EARL PANZER, A.B., Fellow in Chemistry.
A.B., College of the Pacific, 1948. (1948)

GORDON CALHOUN SHELLEY, LL.B., Lecturer in Economics.
A.B., Stanford University, 1947; LL.B., University of Denver, 1948. (1948)

LOUIS V. SKINNER, LL.B., Lecturer in Business Administration.
B.S., University of Nevada, 1927; LL.B., University of Oregon, 1935. (1947)

HARRIET BEACH SPENCER, B.A., Assistant in English.
B.A., University of Illinois, 1922. (1944)

ROBERT NORMAN TOMPSON, B.S., Assistant in Mathematics.
B.S., Adrian College, 1941. (1947)

RUTH VAN DYKE, B.A., Assistant in Mathematics.
B.A., University of Minnesota, 1914. (1946)

LYMAN R. VAWTER, D.V.M., M.S., Lecturer in Animal Husbandry.

D.V.M., Kansas State Agricultural College, 1918; M.S., Cornell University, 1931. (1945)

MARGARET JENSEN WILLIAMS, M.A., Assistant in Mathematics.

B.S., University of Nevada, 1938; M.A., 1940. (1941)

SHIRLEY CAMPBELL WILLIAMS, B.S., Fellow in Chemistry.

B.S., University of Nevada, 1947. (1947)

ETHEL CROUCH WRIGHT, B.A., Assistant in Sociology.

B.A., University of Nevada, 1946. (1946)

UNIVERSITY STANDING COMMITTEES

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

Administrative Council—
WOOD, BROWN, CARPENTER, CREEL, DEMING, GORRELL, GRIFFIN, HILL, MARTIE, MOBLEY, S. PALMER, RHODES, SCOTT, TRANER.

Admission, Entrance Examinations, and Advanced Standing—
DEMING, MILLER, S. PALMER, RHODES, SCOTT, WITTWER, WOOD.

Advisory Council—
BEESLEY, BILLINGS, GIANELLA, GORRELL, MELZ, SANDORF, SEARS, SMYTH, WITTWER.

Assemblies and Lectures—
GRIFFIN, ELDRIDGE, A. S. U. N. President.

Athletics—
TITUS, RHODES.

Campus Calendar for Student Activities—
GRIFFIN, MARTIE, MOBLEY, POST, RUSSELL, A. S. U. N. Representative.

Campus Employment—
GRIFFIN, MOBLEY, Y. W. C. A. Secretary.

Ceremonials—
WOOD, BROWN, GRIFFIN, HIGGINBOTHAM, S. PALMER, PARKER, POST, A. S. U. N. President.

Chief Marshal of Formal Assemblies—
PARKER.

Graduate—
TRANER, HARRIS, LEIFSON, WITTWER.

Health—
LOWRANCE, GRIFFIN, LOCKE, MARTIE, MOBLEY, SMEE, A. S. U. N. President, A. W. S. President.

Library—
ELDRIDGE, HICKS, HILL, W. PALMER, SR., SWIFT, WEBSTER, WILLIAMS.

Orientation—
IRWIN, BYRD, DEMING, GORRELL, GRIFFIN, HENDRIKS, MOBLEY, MOOSE, RUSSELL, SHEPPARD, A. S. U. N. Representatives.

Publications—
HIGGINBOTHAM, ADAMS, BILLINGS, BROWN, CARPENTER, CREEL, FLEMING, GORMAN, GORRELL, HILL, LAIRD, S. PALMER.

Public Relations—
HIGGINBOTHAM, BROWN, POST, WITTWER.

Research—
BILLINGS, BEESLEY, HARRIS, HICKS, HUME, IRWIN, MELZ, SEARS, VAWTER.

Rhodes Scholarship Nominating Committee—
LEIFSON, WEBSTER.

Schedules—
WILLIAMS, HICKS, RICHARDSON, ROBERTSON, VAN DYKE.

Scholarships and Prizes—
BROWN, CARPENTER, GRIFFIN, MOBLEY, WILLIAMS.

Student Affairs—
GRIFFIN, MOBLEY, RUSSELL, SANDORF, A. S. U. N. President, Sagebrush Editor, Y. W. C. A. Secretary.

Vocational Guidance—
IRWIN, BILLINGS, BLODGETT, GRIFFIN, MOBLEY, RUEBSAM.

Sketch of the University

The University and Its Functions

Among western civilizations, the university is the recognized instrument with which man seeks the truth and seeds it abroad. Truth is sought by research; it is disseminated, indirectly through publication, directly by teaching students. Thus, a university is an institution for fostering and preserving culture; it is the custodian of tradition.

In Nevada, these activities are centered in the State University, the only recognized institution of higher learning in the State, and a member of the important American system of land-grant colleges and universities. The institution is supplied with ample facilities to do sound work, extensive grounds and good buildings, in which are classrooms, laboratories, and research collections. It is staffed with a competent administration and a varied faculty, teachers and research workers, scholars, scientists, and professional people. These men and women work in their special fields, some through independent research, some through foundations and institutions supported by Federal funds, by State appropriation, or by private benefaction. The major concern of the University is, however, and has been since its inception, the teaching of students and the training of young people.

All qualified students are admitted without distinction. The qualifications for admission are only those which seem necessary to restrict the privileges of the University to those who can profit from them; for these qualifications, see *Admission* in the index. Citizens of the State pay no tuition; those from without the State pay a moderate sum, and care is taken that personal expenses need not be large. For the cost of attending the University, see *Expenses of Students* in the index. Students are given a large degree of self-government, and are encouraged in artistic, scientific, professional, and cultural pursuits. Their health and social needs are provided for. Thus the young people live in a community conducive to building good citizens, capable experts, and cultured men and women. For more detailed information concerning the lives and activities of students, see *Student Life* in the index.

The University is organized and administered to provide serious undergraduates with unusually capable and helpful instruction. Graduate work is offered, but the bulk of the students at the University of Nevada come there for studies leading to the degrees Bachelor of Arts and Bachelor of Science. Accordingly, most of the University is organized for the benefit of these students. Faculty members are chosen, not alone for their capacity to conduct research, but also for their ability to impart their knowledge and to inspire young people. Classes are kept small so that students may receive individual attention, and even the beginning student finds that he has access to the best of teachers, many of them with national reputations. Thus the University of Nevada combines many of the advantages offered by the large universities with those more characteristic of the small endowed colleges.

The University offers a wide range of opportunity. Courses in languages, literatures, social studies, the sciences, and the arts offer ample opportunity for a broad culture. Selections from these courses will permit the student to lay the foundation for any specialized technical or professional training he may later elect. In addition, advanced training is offered in many fields, notably in agriculture and in engineering, and curricula are constantly being revised to fit changing conditions and to take advantage of educational developments. For courses and curricula offered by the University, see the index under subjects of individual interest, and for a general treatment, *Organization of the University* and *Courses of Instruction.*

Situation of the University

The University of Nevada is situated in the Truckee River Valley on a low plateau at the northern edge of Reno, in the center of an area known for mountain and desert scenery. The Sierra Nevada mountains, crowned by snow-capped Mount Rose with an elevation of 10,800 feet, tower above the campus on the west; and rugged, varicolored desert ranges stretch into the distance in other directions.

The campus itself, consisting of more than eighty-six acres, harmonizes with its setting. It is built around a turfed quadrangle, at the northern end of which stands the famous statue of John W. Mackay, Comstock pioneer, wrought in bronze by Gutzum Borglum. West of the quadrangle Manzanita Lake mirrors the red-stone buildings and the green lawns, bordered by a variety of trees, shrubs and flowers.

At an elevation of 4,500 feet Reno has a climate which combines the dryness of the desert and the coolness of the mountains. The air is clean and stimulating; temperatures are uniformly comfortable; and the sun shines on more than three hundred

days of the year. Reno provides pleasant and healthful environment.

The city and University are rendered accessible by three railroads: the Southern Pacific, the main line between San Francisco and Ogden, Utah; the Virginia & Truckee Railway, a short line connecting Reno and Carson City; and the Western Pacific, a transcontinental trunk line. Reno is also on the main transcontinental route of the Greyhound and Burlington bus lines. In addition, the Victory Highway passes through Reno from east to west, while other paved highways come from north and south. The main route of the United Air Lines joins Reno with all important points in the country. These various transportation facilities serve a substantially built and steadily growing city of more than 25,000.

University students at once feel the hospitality of Reno. Its churches and various actively maintained cultural features, such as the Reno Little Theater and the Nevada Community Concert Association, strengthen the bond of common enterprise between university and city.

History and Development

The University of Nevada has reached its present standing as an important institution of higher learning through steady growth from a small preparatory school of the pioneer West to a university offering a wide variety of courses of study and conducting significant research. The growth of the University paralleled the development of the West. First established in the early days of the State of Nevada, when high schools were almost unknown in the intermountain area, the University originally filled the requirements of a small population seeking elementary training. The expansion of the West brought demands for college work and more adequate funds from public and private sources. Development of mining and the benefactions of wealthy mine owners, notably the Mackay family, helped the institution to become known as a center for research and instruction in mining. This reputation has been deserved, but the University has remained, as it was begun, a general institution of higher learning.

In 1864 the University of Nevada was established by an article in the State Constitution authorizing the Legislature to "encourage, by all suitable means, the promotion of intellectual, literary, scientific, mining, mechanical, agricultural, and moral improvement," and to provide for "the establishment of a State University, which shall embrace departments for agriculture, mechanic arts and mining." The Constitution further provided for the establishment of a Board of Regents to supervise the University and for a special tax to be used for the University's support.

The Morrill Land Grant Act of 1862 had already provided federal aid for the establishment of a university. By the terms of the Act, the State received in 1866 a donation of 90,000 acres of land "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 fund derived from the sale of this land is known as the "90,000-Acre Grant Fund" and amounts to $128,010.81. The grant was supplemented in 1866 by a special Act of Congress donating seventy-two sections in the State to endowment of a university and providing for the "University Irreducible Fund," now amounting to $60,000.13, derived from sale of this land.

It was not until March 7, 1873, however, that actual plans for a university were approved. The school was located in Elko by the State Legislature, and on October 12, 1874, it began actual work, on the preparatory level, with a class of seven students, under the supervision of D. R. Sessions. The University continued at Elko, primarily serving a few local students in elementary studies, until it was moved to Reno, nearer the center of the State's population, in 1885.

The University was formally reopened March 31, 1886, in Reno, and in 1887, under the administration of President LeRoy D. Brown, it began work with fifty students and Miss Hannah K. Clapp as the single member of the faculty. During the administrations of President Brown, from 1887 to 1889, and President Stephan A. Jones, from 1890 to 1894, departments of the University were established and the faculty was enlarged. By 1888 there were seven members of the faculty, and a School of Mines had been organized with Robert D. Jackson as Director, a Normal School with Miss Kate N. T. Tupper as the head, and a Military Department with Lieutenant Arthur C. Ducat, Jr., as commandant. Plans were also made for departments in the liberal arts, agriculture, and business. In 1889, by the terms of an Act of Congress known as the Hatch Act, the Agricultural Experiment Station was organized, with $15,000 annually provided for its support. At the beginning of the administration of President Joseph Edward Stubbs in 1894, classes had been graduated by the State Normal School and by the Schools of Liberal Arts, Mining, and Agriculture. Morrill Hall, the "Dormitory Building," now Stewart Hall, the Agricultural Experiment Station Buildings, and the first machine shop had been completed; Washoe County had presented a 60-acre farm; and the general organization of the University had been established.

During the twenty-year administration of President Stubbs

Nevada developed into a modern university. New faculty members brought points of view from different parts of the world; enrollment increased to nearly 500 students; and the physical plant of the University was expanded until it more nearly filled the needs of the growing State. By the time of the University's thirtieth birthday in 1904, the Mechanical Building, the Chemistry Building, Lincoln Hall, Manzanita Hall, the Gymnasium, the President's House, and the hospital had been built on the campus. During the next ten years Federal aid and gifts from the Mackay family allowed further expansion. In 1906 the Adams Act of Congress provided $15,000 annually for the support of the Agricultural Experiment Station, and in 1907 the Nelson Fund, amounting at present to $25,000 a year was established by Congress for the benefit of land-grant colleges. Acts of the State Legislature established the State Hygienic Laboratory in 1909 and the Laboratory for Pure Foods and Drugs and Weights and Measures in 1910, and provided in 1911 and 1913 for the Electrical Engineering Building and a small library building. The most notable improvements to the University's physical plant during this period were the result of donations by Mrs. John W. Mackay and Clarence H. Mackay, which were begun in 1907. The gifts included $25,000 for beautifying the campus and funds which established the Mackay School of Mines and built the Mackay Athletic Field and the Mackay Training Quarters.

At the death of President Stubbs on May 27, 1914, Archer B. Hendrick became President of the University. During the three years of his administration, agricultural studies at the University made notable progress. The Smith-Lever Act of Congress in 1914 established a fund amounting to $15,699 per year by 1923, for the purpose of agricultural extension, and the State Legislature authorized the State Veterinary Control Service in 1915. Two years later the 213-acre University Farm was purchased.

The administration of President Walter Ernest Clark began in 1917, with the University preparing for the varied types of war training service which were carried on during 1918 and 1919. During this administration, which continued until President Clark's retirement in 1938, the University continued its steady development and progress. The enrollment more than doubled; the faculty and physical plant were enlarged; and student body activities gained new form and vigor.

In 1924 the establishment of the Robert Lardin Fulton Lecture Foundation provided for bringing distinguished speakers to the campus. In 1929 a State Bureau of Mines was established and put under the control of the Regents of the University. In 1931 the land and building formerly used by the Nevada Historical Society were transferred to the University. During

the period from 1933 to 1940 various projects were financed by Federal Government Relief Administration Funds, and improvements were completed on the campus, in the greenhouse, on Mackay Field, and in several of the University buildings. In 1935 the Bankhead-Jones Act of Congress provided further funds for land-grant colleges to be used for resident teaching, agricultural extension, and agricultural experimentation. Many of the improvements during this period, however, were the result of gifts from friends and alumni. Clarence H. Mackay continued his benefactions; adding a file of the rare *Virginia City Enterprise* to the library; providing $18,000 per year for the maintenance of the Mackay School of Mines; and providing funds for the Mackay School of Mines Museum, to enlarge the Mackay School of Mines Building and perfect its equipment, to enlarge the stadium and training quarters, to purchase about twenty-seven acres of land from the Evans Estate, increasing the acreage of the campus nearly fifty percent, and finally to build the $415,000 Mackay Science Hall, dedicated and presented to the University by Mr. Mackay on October 24, 1932.

Another important addition to the University plant was the gift of William A. Clark, Jr., the $250,000 Alice McManus Clark Memorial Library, which was presented to the University on October 21, 1927. The physical plant of the University was further improved in 1928 by the construction of a retaining wall back of the Engineering Buildings, financed by George Wingfield, and important improvements to Lincoln Hall, financed by Thomas F. Cole. The S. Frank Hunt Foundation, established in 1935, provided funds for field trips for geological study and mineral prospecting. The work of the department of music was aided in 1935 by a gift from the Carnegie Corporation of a Capehart phonograph and a collection of records, scores, and volumes on music.

At President Clark's retirement the University had assumed its present-day physical appearance and had advanced academically until it was approved in all departments by the Northwest Association of Secondary and Higher Schools.

President Clark was succeeded by Leon Wilson Hartman as Acting President in 1938 and President from 1939 until his death August 27, 1943. Acting President Charles Henry Gorman served from 1943 until the beginning of the administration of President John O. Moseley, July 1, 1944. Although enrollment dropped during the war and much of the University's work was turned in 1943 to Army training programs, Nevada has continued to grow in recent years. From 1941 to 1943 projects costing about $100,000 were completed on the campus by the Works Progress Administration of the Federal Government. In 1942 the new Engineering Building, constructed at a cost of about $175,000 on the authority of the State Legislature,

was completed; and additions to the infirmary and to the dining hall were completed in 1942 and 1945. Facilities for work in agriculture were greatly improved in 1944 when Major Max C. Fleischmann gave the University his 258-acre farm, formerly the Ladino Dairy, with modern buildings and equipment and a herd of dairy cattle and other livestock.

A special Summer Session of ten weeks, in addition to the regular six-week session, was undertaken as a major item in the University's war effort in 1942, and it led to the establishment of the present ten-week Summer School. In 1944 the Engineering Experiment Station, discontinued in 1939, was reestablished with Dean Stanley G. Palmer, Acting Director. In 1945 a student center was established in the basement of Stewart Hall as a forerunner to a Student Union, and the Y. W. C. A., with a full-time secretary, was established with headquarters in the student center. During the same year, work in agriculture was coordinated through the appointment of an over-all Dean of Agriculture responsible for the College of Agriculture, the Agricultural Experiment Station, and the Agricultural Extension Division.

In the Fall of 1944, an agreement was reached between the Executive Committee of the Alumni Association and the administration of the University of Nevada providing for the part-time services of Dr. R. A. Griffin as alumni secretary for a two-year period. This arrangement made possible much needed coordination between various alumni groups. New alumni chapters were organized. The duty of compiling addresses of men and women in the armed services was undertaken and news bulletins were sent out to every corner of the globe. These enlarged activities pointed to the necessity of a full-time alumni secretary culminating in the appointment in 1946 of Rex Daniels, '46, as the first full-time director of alumni activities.

In 1946 and 1947 the University began expansion for its increased postwar enrollment with the erection of quonset huts to house administrative offices and a group of prefabricated housing units for the use of the Departments of English and Art. Housing for the nearly nine hundred veterans enrolling in the University in 1946 was partially provided by University housing projects and the conversion of a section of the Old Gymnasium into a temporary dormitory. The University, with enrollments of more than 1,700 students, continued its postwar program during 1947, 1948 and 1949.

Survey of University Organization

As a functioning institution, the University of Nevada acts through a flexible organization calculated to fulfill the needs of the State, of the students, and of those who devote their lives to

the conduct of university affairs. The supreme authority for the government of the institution is vested in a Board of Regents, elected by the people of the State. This board acts through a president, to whom the deans and the directors of the various divisions of the University are responsible. The deans, in turn, work through the chairmen of instructional departments, through committees of the faculty, and through the general faculty and the faculties of the colleges, sitting as legislative bodies. Thus, there is throughout the University a carefully graduated heirarchy of authority and responsibility, a central structure which permits the University to work for common ends and with unified purpose. At the same time, within this general structure teachers and research workers find that there is left to them the latitude for individual initiative without which highly trained and responsible people cannot do their best work. Students find that the University is so adjusted that there are regularly organized patterns of life and learning into which they can adapt themselves with ease, and that there is sufficient flexibility to accommodate the exceptions when exceptions appear.

A more detailed sketch of the major divisions of the University and of the University administration follows:

The College of Arts and Science

The College of Arts and Science offers a wide range of courses for students who seek a background of culture and scholarship in order to prepare for more intelligent living and for later specialization.

During the first two years the student receives basic instruction in English, foreign languages, and social and natural sciences. During the junior and senior years the student concentrates on becoming proficient in special fields.

Work in the following subjects is offered in the College of Arts and Science: art, astronomy, biology, botany, business, chemistry, dramatics, economics, education, English, foreign languages, geography, history, journalism, library science, mathematics, military science, music, philosophy, physical education, physics, political science, psychology, speech, sociology, and zoology.

In addition to the degrees of Bachelor of Arts and Bachelor of Science, special work is offered leading to the degrees of Bachelor of Arts in Journalism, Bachelor of Science in Business Administration and Bachelor of Science in Chemistry or Chemical Technology.

Standard courses for pre-medical, pre-nursing, and medical technologists are provided as are courses for pre-legal students and social workers.

School of Education

The responsibility for all teacher-training work in the State of

Nevada for elementary and secondary schools rests upon the School of Education of the University of Nevada.

This school is a division of the College of Arts and Science, but has its own Dean and direct affiliations with the Colleges of Agriculture and Engineering. It offers to prospective secondary-school teachers a liberal and professional four-year course of study, leading to the bachelor's degree, and a teachers' high school diploma, entitling the teacher to a teachers' high-school certificate. It also offers four-year courses which qualify for a first-grade elementary certificate and offers special training courses for future school principals and superintendents.

For the student who cannot remain continuously in the University for four years the School of Education offers a two-year course which entitles the student to be recommended for a first-grade elementary certificate. A one-year course is offered which entitles the student to be recommended for a second-grade certificate.

During the Summer Session and during the regular term, graduate courses are provided, leading to the Master of Arts Degree in Education.

The College of Engineering

The College of Engineering includes the Schools of Mechanical, Civil, and Electrical Engineering, and the Mackay School of Mines.

The Mackay School of Mines offers three four-year courses, one in general mining, one in metallurgy, and one in geological engineering. The first prepares the student for general practice in mining, metallurgy, and geology, and leads to the degree of Bachelor of Science in Mining Engineering. The second is a more specialized course in metallurgy, leading to the degree of Bachelor of Science in Metallurgical Engineering. The third is a specialized course in geology leading to the degree of Bachelor of Science in Geological Engineering.

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 a graduate who has held responsible mining positions for at least five years and who presents a satisfactory thesis.

The Schools of Mechanical, Electrical, and Civil Engineering each offer four-year courses of instruction leading, respectively, to the degrees of Bachelor of Science in Mechanical, Electrical, and Civil Engineering. The professional degree of Mechanical, Civil, or Electrical Engineer may be conferred upon a graduate of this or another university under the conditions stated under the heading "Engineering Degrees." (See index.)

The classrooms and laboratories for Mechanical and Civil Engineering are in the new Engineering Building. Those for Electrical Engineering are in the Electrical Building, as is also the office of the Dean of Engineering.

The College of Agriculture

The College of Agriculture curricula lead to the degree of Bachelor of Science in Agriculture with majors in agricultural economics, animal production, plant production, agricultural education, and general agriculture. These are four-year courses, including, in addition to the prescribed agricultural subjects, basic courses in the Arts and Sciences.

The Department of Home Economics is in the College of Agriculture. The curricula include three majors: teaching, foods and nutrition, and general. Each of these fields leads to the degree of Bachelor of Science in Home Economics. Both men and women will find cultural and professional opportunities, as well as fundamentals for everyday living, in these areas of study.

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 (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 Division

Cooperative Extension work in Agriculture and Home Economics as provided for by the Federal Smith-Lever, Capper-Ketchum, Bankhead-Jones, Bankhead-Flannagan, and Hope-Flannagan Acts, and Supplementary State Acts is under the immediate charge of a director.

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

Public Service Departments

The Legislature of the State has placed the following four pub-

lic 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.

Food and Drug Control and Weights and Measures

The Department of Food and Drugs was created by a legislative Act of 1909. The Weights and Measures Law was enacted in 1911 and provided that the Commissioner of Food and Drugs, appointed by the Board of Regents, should be ex officio Sealer of Weights and Measures. In 1931 the Legislature passed a Petroleum Products Inspection Law to be administered under the Department of Weights and Measures. Laboratory facilities required under these Acts have been consolidated into a central laboratory located at 5th 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.

United States 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 costs 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.

Graduate Degrees

Curricula leading to the degrees of Master of Arts and Master of Science are offered by the University under the direction of a Graduate Committee appointed by the President. These curricula include an integrated program of twenty-four hours of graduate courses in a major and minor field, and a thesis, and culminate in a final oral examination by a special examining committee.

The University of Nevada does not offer graduate work leading to the doctor's degree.

Professional degrees in the College of Engineering may be conferred upon graduates of the College of Engineering of the University of Nevada, who have held positions of responsibility in engineering, and who submit a thesis showing ability to conduct advanced engineering work.

The Summer School

The Summer Sessions are organized to benefit both graduate and undergraduate students wishing to advance themselves toward degrees or to study in fields of particular interest. Courses are offered upon demand. Classes in the College of Engineering have been included when pupil need seemed to justify these offerings. There is constant demand for work leading to State certification. Hence, subjects in the College of Arts and Science are always given.

Correspondence Study

Correspondence work is offered by many departments of the University. Credit thus obtained may be used toward entrance and graduation requirements or renewing teachers' certificates.

Complete details concerning courses offered, fees, and other necessary information are contained in the *Correspondence Bulletin* which may be obtained from the Office of Correspondence.

THE ADMINISTRATION

Government

The control of the University is vested by law in a Board of Regents consisting of five members elected by the people.

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 Departments.

The President

The President of the University is the executive head of the University, the Chairman of the University faculty, and ex officio member of all committees. It is his duty to secure through the Academic Deans, Directors of the various schools, and other administrative officers efficient, orderly, and economical administration and healthful development of the University.

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 principal administrative officers are the Academic Deans and the Directors of the various schools, who, under the general supervision of the President, have immediate charge of the educational work of the University. It is the duty of these Deans to secure estimates for the expenses of their departments and to submit their estimates to the President.

Dean of Women

The academic and social welfare of all the women students is under the supervision of a Dean of Women. Regulations governing the women students on the campus, in the halls and sorority houses, are formulated by the women students and approved by the Dean. The residence halls are under the direct supervision of social directors but have, in general, self-government. The personnel record of each woman is on file in the office of the Dean of Women.

Dean of Men

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

The University Faculty

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

The Standing Committees, through which much of the business of the University Faculty is done, are listed elsewhere in this catalogue.

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 encroach 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.

[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.

Departments

The department is the educational unit in the University. The chairman of each department is directly responsible to the Dean for the efficiency and educational effectiveness of the department. The chairmen of departments make all departmental reports to the Dean and submit estimates to him for the expenses of their departments. For general administrative work the chairman of the department is responsible to the Dean of that college in which his major work appears.

THE UNIVERSITY PLANT

Campus and Buildings

The University has at its disposal a modern educational plant, supplied partly through State appropriation, partly through private gifts. The major portion of the institution is situated on the main campus, which commands an eminence in the northern part of Reno. Here are gathered more than a score of buildings, centering upon Morrill Hall, the original structure on this site, in which the University was rededicated in 1886. Here are the main buildings which house the administrative offices, the classrooms and laboratories and libraries, the dining and living quarters for students, social and athletic facilities, and space for many of the research activities conducted by the University or associated with it.

The major buildings which house the University may be described as follows:

Agriculture Building—A three-story structure of brick, east of Manzanita lake. The first floor includes administration offices, classrooms, agricultural library, farm crops, foods and child development laboratories, and a large lecture room. The second floor is devoted to home economics and biology, and includes the dining room and food and clothing laboratories, as well as the biological laboratories. The basement includes laboratories for dairying, soils teaching, soils research (Experiment Station) and botany. (1918*)

Agricultural Extension Building—A two-story gray-stone building on the west side of the quadrangle. Fitted with laboratories and classrooms, it was used for chemistry until the fall of 1930. Renovated and remodeled, this building has been occupied from the beginning of 1936 by the Staff of the Agricultural Extension Service of the University. (1902)

Artemisia Hall—A modern brick residence accommodating 100 women students in comfortable rooms. The hall is located north of the dining hall on North Virginia Street. Artemisia's spacious living room, containing a large fireplace and a grand piano, becomes the center of social activities during recreation hours.

Dining Hall—A one-story brick building on the west side of the campus, scientifically equipped and accommodating 350 students. (1926; enlarged 1945)

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

EDUCATION BUILDING—A two-story brick building, north of the Agriculture Building. It contains an auditorium seating 350, with stage and dressing room, a music room, and classrooms and offices of the School of Education. It also houses the Department of Economics, Business, and Sociology and the Department of Psychology. (1920)

ELECTRICAL BUILDING—A two-story brick building, on the east side of the campus. The first floor contains offices, classrooms, and the electrical laboratories. The second floor contains the electrical engineering library and reading room, classrooms, and a computing room. (1912)

ENGINEERING BUILDING—A fireproof, reinforced concrete, brick and stone building, located on the flat east of the quadrangle, and facing west. It houses the Departments of Civil and Mechanical Engineering. The basement contains the following laboratories: (Civil Engineering) fluid mechanics, materials testing, concrete and cement testing; (Mechanical Engineering) calibration and general mechanical. The first and second floors are devoted to offices, classrooms, and drafting rooms. (1941)

GREENHOUSE—A working greenhouse on the east side of the campus is used by the Departments of Biology, Horticulture, and Agronomy. (1909). An addition was built with Federal Relief Funds. (1934)

NEW GYMNASIUM—A building of brick and reinforced concrete, north of the quadrangle. The main floor contains a large playing court flanked on either side by balconies for spectators. When used as an auditorium the main floor seats approximately 3,500. The building provides offices and facilities for athletics and for the Departments of Physical Education and Military. (1943)

OLD GYMNASIUM—A brick building north of the quadrangle. It is in temporary use as a dormitory for men. The basement contains the indoor rifle range. (1897; extension, 1922; converted for temporary use as a men's dormitory, 1946.)

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

HEATING PLANT—A central plant supplying 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)

INFIRMARY—A one-story building containing nine rooms and a basement, situated between the Gymnasium and Lincoln Hall. There are four wards—two for men and two for women. A registered nurse is in charge at all times, and the physician engaged by the University Health Service has daily office hours. (1902; enlarged, 1941.)

JOURNALISM BUILDING—A one-story building situated on the west side of the quadrangle, constructed of brick and stone in conformity with the architecture of other buildings. Since its construction it has housed the Library and the Departments of English and Journalism. In 1947 it was remodeled as a Journalism Building. (1913)

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

LINCOLN HALL—A three-story brick building with accommodations for seventy-two men, situated north of and facing Manzanita Lake. (1896)

MACKAY SCHOOL OF MINES BUILDING—A gift of Mrs. John W. Mackay and Mr. Clarence H. Mackay, housing the Departments of Mining, Metallurgy, and Geology. In the basement are storerooms, laboratories, the museum, and the shower and locker rooms for the students. On the first floor are classrooms, laboratories, offices, a library, and the Mackay museum. On the second floor are the State analytical laboratory, the mezzanine floor of the museum, drafting room, seminar room, instruments room, office of the Department of Geology, the Mackay Research Library, maproom, petrography grinding and polishing room, classrooms, and laboratories. (1908; enlarged, 1926)

MACKAY SCIENCE HALL—A reinforced concrete, fireproof, brick and stone building, housing the Departments of Chemistry, Physics and Mathematics. A full basement and a subbasement 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. (1930)

MANZANITA HALL—A brick dormitory building, located on Manzanita Lake. It accommodates 100 women students.

MECHANICAL BUILDING—A two-story brick structure, on the east side of the quadrangle adjoining the Electrical Building. It contains the machine shop, pattern shop, and welding shop. The carpenter shop of the Department of Buildings occupies a portion of the second floor. (1897)

MINES EXPERIMENTATION BUILDING—A two-story brick building with basement, situated north of the east wing of the School of Mines Building, housing the storage rooms, laboratories, library, and offices of the United States Rare and Precious Metals Experiment Station. (1921)

MORRILL HALL—A three-story brick building with a large basement. On the first floor are the offices of the President and the Comptroller. The Department of Philosophy and offices occupy the second floor. The third floor is used for offices of the Departments of Farm Development, Soil Conservation, and Agricultural Economics of the U. S. Department of Agriculture. All three agencies are working in cooperation with the Agricultural Experiment Station. The University Post Office and storerooms and the office of the Superintendent of Maintenance are in the basement. (1886)

PRESIDENT'S HOME—A comfortable three-story structure situated on the southeast corner of the campus. (1900)

QUONSET HUTS—A number of quonset huts have been erected on the campus to provide temporary office and classroom space. Buildings located on the quadrangle north of Stewart Hall contain offices of the Dean of Men, the Dean of Women, the Alumni Secretary, the Registrar, and the Director of Admissions. Buildings northeast of the New Gymnasium are used for storage and for classes in military science and tactics.

STEWART HALL—A three-story brick building with a basement. The basement is used for the student recreation center and the office of the Y. W. C. A. Secretary. The Department of History and Political Science occupies the first floor. The second floor is occupied by the Department of Foreign Languages. (1890)

STUDENT UNION BUILDING—A story-and-a-half stucco building, housing the offices of the graduate manager, the A. S. U. N. President, and the student publications. This building and land, formerly the property of the Nevada Historical Society, was given to the University by the 1931 Legislature.

TEMPORARY DORMITORIES—Temporary housing for veteran students has been provided in the Highland Terrace dormitories, housing about 130 men, and located at Beech and Highland Streets; in 112 apartments for married students at Victory

Heights, located at the end of Evans Avenue; and in the 36 units of the University Trailer Court on West Second Street.

TEMPORARY ENGLISH AND ART BUILDINGS—Prefabricated metal buildings, east of the quadrangle. The buildings were provided by the Federal Government from war surplus as temporary housing for the Departments of English and Art. (1947)

THE MACKAY FIELD AND TRAINING QUARTERS—A natural amphitheater, 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 provisions made for its improvement. Later he purchased an additional twenty-six acres to the north of and adjacent to this tract. To care for other branches of athletics, such as basketball and tennis, the Nevada Legislature of 1909 provided for the purchase of additional land to the south of the old field, so that now about ten acres of land are being used for athletic purposes. The improvements donated by Mr. Mackay include the Training Quarters Building, situated on the east side of the field (1909), which 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 have a seating capacity of more than five thousand.

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

VETERINARY SCIENCE BUILDING—A two-story brick and stone building situated on the east side of the campus directly east of the Mechanical Building. Remodeled in 1936, this building now houses the Veterinary Control Service and the bacteriological and chemical laboratories of the University's Agricultural Experiment Station. (1913)

THE EXPERIMENT STATION FARM—A sixty-acre farm, east of the University campus, given by the citizens of Washoe County for agricultural experimentation. (1899)

THE UNIVERSITY DAIRY FARM—The University Dairy Farm, equipment, and dairy herd, a gift in 1944 from Major Max C. Fleischmann, is located three miles south of Reno via Virginia Road, and one mile west on Huffaker Lane. Formerly known as the Ladino Dairy, this 258-acre farm has modern dairy buildings, farm equipment, and machinery. The dairy herd consists

of purebred stock. Instruction and laboratory work in Dairy Husbandry is now conducted on this farm.

THE UNIVERSITY FARM—The University Farm, for general purpose of agricultural instruction, comprises 213 acres and was purchased by the State in 1917. It is located two miles south of Reno along Virginia Road and Hash Lane. From July 1931, to October 1, 1947, this farm was leased to private interests. During this time substitutional arrangements for using equipment and livestock of private farms were in effect in connection with dairy and poultry courses. At the present time, effort is being made to rejuvenate this farm and to coordinate it with the instructional program at the University.

EQUIPMENT AND MATERIALS

Within the buildings of the University is the various equipment necessary for the operation of a modern educational institution. All bureaus and departments have special facilities for research or for effective instruction. Some collections of material, however, are of such intrinsic importance, or are so useful to the student or to the general public that they warrant special mention. These materials are all open for the use of qualified students, and in many instances to the general public. Many facilities are free; when a charge is made, it is nominal, and usually only enough to cover breakage, or the cost of materials and service required by the individual.

LIBRARIES

The University libraries are intended to supply the rarer books and printed materials to support the courses offered by the University, to assist the investigations undertaken by the research and teaching staffs, and to provide space for study. Insofar as funds are available, an attempt is made also to provide for recreational and cultural reading. The libraries contain more than 85,000 bound volumes and more than 25,000 unbound serials and pamphlets. The current periodicals, chosen especially for their importance in cultural, technical, scientific, and scholarly fields, number almost 600; they include 25 newspapers. The actual choice of books is usually made by the University experts in the various fields, in order that the works will be available which will be most useful for the curricula which the University offers. The collections have been supplemented by private gifts.

The general collection is housed in the Alice McManus Clark Memorial Library Building, on the second floor of which is the general reading room and reference desk, where students may obtain the books required in their courses. A general reference collection is available on the open-shelf plan, and individual

rooms house special collections. Especially useful are seminar collections for the departments of agriculture, classics, economics, English, and foreign languages, where books in special subjects are brought together to facilitate the work of advanced students. These rooms are used also for some seminar classes, so that teacher, student, and source materials can be brought together for the best teaching results. Of special interest are the Hester Mayotte Library, containing rare books in foreign languages; the Nevada history collection, containing some of the rarest Nevada newspaper files; and the Charles Cutts loan collection of fine printing. The University is an all-depository for the publications of the Federal Government and the Army Map Service. The map collection now contains more than 25,000 items.

It is the purpose of the library staff to encourage new students to acquire early in their first year an ability to use the library and its principal tools, the card catalogue and the reference collection. This is accomplished mainly by personal instruction at the reference desk and by lectures to students in freshman English. For more advanced students a course in the use of the library is offered.

Agricultural Experiment Station Library

The Agricultural Experiment Station Library, containing about 5,000 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 various Experiment Stations, 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, is also accessible to the public.

Mining Library

Reference books, text books, the recent issues and the bound volumes of technical journals and of the American Institute of Mining and Metallurgical Engineers, along with historical pictures and paintings are located in the attractive library room on the ground floor of the Mackay School of Mines.

The library as a whole consists of some 2,500 bound volumes in addition to which there is maintained a complete set of the publications of the United States Geological Survey and the United States Bureau of Mines, and fairly complete sets of similar publications issued by the States, and also the Nevada Bureau

of Mines indexed file of the mining news of Nevada clipped from the newspapers of the State since 1929. The library is open daily during the year.

The Mackay Research Library

The Johannes Walther Library, comprising about 7,000 papers on desert geology, paleontology, ore deposits and other geologic subjects, is located in the Mackay research room on the second floor of the Mackay School of Mines Building. The funds to buy the library and to remodel and furnish the research room were supplied by Mr. Clarence H. Mackay.

Comstock Maps

Through the generosity of several donors the Mackay School of Mines has accumulated a very valuable collection of Comstock maps, both surface and underground. These are filed in a large map case, a gift of Clarence H. Mackay.

The preservation of these maps has been of important economic value to the Comstock mining companies, and they have been referred to many times by engineers and students.

Military Library

The Military Department maintains in the New Gymnasium a reference library of over 300 volumes on military, economic, and historical subjects.

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.

School Music Reference Library

Some 200 bound volumes and hand books of music materials for the elementary and high schools, including band and orchestra, class instruction of all grades, concert music, secular, and sacred choral music of different periods, vocal arrangements for different ages, operettas, violin and piano teaching material, are available in the music rooms and are especially valuable for students and teachers of public school music and for leaders of choral and instrumental groups.

Other Departmental Libraries

Seven library collections are shelved outside the Clark library for the convenience of departments using them. Those dealing with animal husbandry, biology, and home economics are housed

in the Agriculture Building; those for chemistry and physics in the Mackay Science Hall, and those for education and veterinary science in the buildings devoted to these subjects.

County and State Libraries

Also available to the faculty and students of the University are the facilities of the Washoe County Public Library in Reno, a general collection of almost 80,000 volumes, and the Nevada State Library at Carson City, a collection of more than 240,000 volumes, especially rich in law, history, and government publications.

Laboratories

Arts and Science Laboratories

Biological—The Department of Biology is equipped with the modern apparatus, instruments, and greenhouse facilities necessary for university-level teaching and research in the life sciences and has the use of the University Herbarium, a biological library, and a museum. Transportation is provided for field work in taxonomy, entomology, plant ecology, vertebrate zoology, and wildlife management.

Chemical—The Mackay Chemical Laboratory occupies the north half of Mackay Science Hall. In addition to the laboratory rooms for general, analytical, organic and physical chemistry, it contains special balance rooms, a dark room, a large lecture demonstration room, a department library and several small laboratories for advanced study and research. All laboratory rooms are designed for individual student work and equipped with efficient fume hoods.

Journalism—Instruction in the Department of Journalism profits from the use of three laboratories. The newsroom is equipped with typewriters, a copydesk, newspaper files, a reference library, and other facilities similar to those in a daily newspaper newsroom. The printing laboratory includes type, presses, makeup materials, and other equipment of a complete, one-man job printing plant. The facilities of the Reno Evening Gazette, the Nevada State Journal, the Reno Bureaus of the United Press Associations and the Associated Press, the Thomas C. Wilson Advertising Agency, the State Advertising Agency, Radio Station KOH, Radio Station KWRN, the Carson City Nevada Appeal, and other journalistic organizations serve as laboratories for students in the course in journalism internship.

Music—The Department of Music has a large collection of recordings of the music of many periods, schools and nationalities from Greek hymns to contemporary modernists. Included is the College Music Set of records, Capehart phonograph and scores donated by the Carnegie Corporation of New York City. Records,

scores and phonograph are available for reference in the music rooms and are used in the appreciation classes.

The University has a number of musical instruments, which are used in band and orchestra work and for class demonstrations, and one practice room with a piano.

PHYSICS—The physics laboratory, in the south wing of Mackay Science Hall, includes adequately equipped laboratories for general physics and electrical measurements. Contributing to the effectiveness of the laboratories are special rooms for advanced work and study of radio, spectroscopy, a storage battery room, a constant-temperature research room, a photometry room, a generator room, a shop which includes glass-blowing equipment, storerooms, and a steel and concrete vault for storing precision instruments.

ELECTRICAL ENGINEERING LABORATORIES

Electrical Machinery—The electrical machinery laboratory is very adequately equipped with power sources and electrical machines making possible a wide range of direct and alternating current experiments.

Small Motors—The small motors laboratory provides facilities to test generators, transformers, selsyns, amplidynes, etc.

Electronics—The most modern facilities are available for the study of fundamental electronic tubes and circuits.

Industrial Electronics—Modern equipment is at the disposal of students for the study of radio frequency, heating, welding, electronic control of machines, power rectification, and photoelectric devices.

X-ray—150 KV X-ray equipment is available for industrial and other purposes.

Radio—The radio laboratory is equipped with transmitters, receivers, radar, and other equipment covering the frequency spectrum up to the highest micro-wave frequencies.

Communication—The wide range of equipment available permits comprehensive study of communication circuits, such as transmission lines, filter, carrier systems, microphones, loudspeakers, etc.

In addition to the above laboratories, mobile radar equipment is available for the use of students. Also available to students in electrical engineering is the electronic equipment of the United States Naval Reserve, housed in the Armory on the campus.

MECHANICAL ENGINEERING LABORATORIES

Engineering Materials and Processes—This laboratory is equipped with the basic machines used in manufacturing processes.

The welding section of the laboratory includes A.C. and D.C. welding as well as gas welding equipment.

Instruments and Calibrations—The instruments and calibrations laboratory is equipped with the usual test instruments, calorimeters, etc.

Internal Combustion—The internal combustion laboratory is equipped with a CFR Diesel testing engine including a 15hp dynamometer, a 100hp dynamometer for general use, and a 150hp Diesel engine generator set.

Steam—The steam laboratory is supplied by a high pressure tubular boiler which can produce saturated steam or superheated steam as is desired. A de-aerating feed water heater and chemical treatment is provided for use with the steam generator.

Air Conditioning—This section of the laboratory provides for a variety of measurements related to heating, cooling, and humidifying a well-insulated room.

Mechanical Vibrations—This section of the laboratory is provided with equipment to investigate critical speeds in rotating machinery.

Mechanical Refrigeration—This section of the laboratory contains a complete compression type refrigerator built especially for testing purposes and also arranged so that it can act as a service unit for cooling of the air conditioning room.

Civil Engineering Laboratories

Fluid Mechanics—The fluid mechanics laboratory is equipped with pumps, weirs, metering devices, and other equipment to enable detailed studies of the flow of fluids and of the energy available from water in motion.

Surveying—The surveying laboratory is equipped with transits, levels, theodolites, tapes, rods, plane tables, and such equipment as is necessary to give the student in surveying opportunity to become familiar with the use and operation of surveying equipment.

Testing—The testing laboratories are equipped with two Universal testing machines, an impact testing machine, a hardness tester, a torsion machine, and equipment for studying the properties of nonmetallic materials.

Mining School Laboratories

Assay—The fire assay laboratory in the Mackay Building is equipped with furnaces and other equipment for assay work. A storeroom, a grinding room for the preparation of samples, and a weighing room are included in the laboratory equipment.

Chemical—Laboratory facilities are provided on the first floor

of the Mackay Building for chemical research and study in connection with mining and metals.

Geological and Mineralogical—The Department of Geology is provided with reference collections illustrating ores, minerals, rocks, and fossils, with class collections for determination, and with publications and maps of the United States Geological Survey and foreign surveys. The mineralogical laboratory is equipped for blow-pipe and chemical work.

Petrographic—The petrographic laboratory includes equipment for sawing, grinding, and polishing, along with a large collection of slides and hand specimens of rocks and minerals.

Seismographic—Records of the seismograph in the Mackay Building are used chiefly for the study of earthquakes of local origin.

Metallurgical Laboratories—The metallurgical laboratories are excellently equipped with apparatus to conduct experiments and tests in ore dressing and hydrometallurgy. They include apparatus for microscopic study of metals and fire assaying, and some electro-metallurgical apparatus.

Metallographic—The metallographic laboratory is equipped with grinding and polishing equipment, photomicrographic cameras and other instruments for metallographic analysis.

Electro - Metallurgical—An electro-metallurgical laboratory, with furnaces and generating equipment, is located in the Mackay Building. Additional equipment is available in the United States Bureau of Mines Building.

Mining—The mining laboratory has equipment and machinery for practical mining experience. The operating mines of the Comstock Lode are near enough to offer opportunities for student study of operating mining equipment, both surface and underground.

Agricultural Laboratories

Dairy—The dairy laboratory in the Agricultural Building contains machinery for the manufacture of butter, ice cream, and cheese and equipment for sterilizing utensils. It also has full equipment for making quantitative and qualitative tests of all dairy products.

Experiment Station Chemical—The experiment station chemical laboratory, equipped for research and analysis, is used for work in relation to the agriculture of the State and to the research projects of the Agricultural Experiment Station.

Farm Crops, Range, and Pasture Management—This laboratory classroom contains samples of seeds of most of the important crop plants of the United States and maintains dried matured cereal, forage crops, range plants, and weed specimens for stu-

dent use. Analytical balances, chemicals, and spray equipment are available for training in weed control. The equipment includes apparatus for sampling and grading grain and forage seeds and for making range forage studies and utilization estimates. In practice the laboratory extends to the fields and ranges of the State which are visited by classes and from which materials are brought to the campus. The University Farm is particularly useful in teaching forage crops and weed control.

Farm Mechanics—The farm mechanics laboratory is equipped to give instruction in all phases of mechanical work which are considered essential to operating a mechanized farm. The facilities are ample for research and development of problems in various related fields.

Soils Research Laboratory, Experiment Station—The soils research laboratory is equipped for conducting research on soils and soil fertility. Its facilities provide for both macro- and microchemical analyses, as well as for the many chemical operations necessary in research work of this kind. A constant-temperature room for small plant cultures and a small experimental greenhouse are part of the equipment.

Veterinary Science—The veterinary science laboratory is fitted 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—An up-to-date food demonstration laboratory has a seating capacity for fifty. A food laboratory seats twelve, and a small adjoining laboratory accommodates one.

Clothing—The clothing laboratory is equipped with tables, sewing machines, and small equipment needed for work in clothing. Twenty students may be accommodated. Adjoining this laboratory are the garment fitting and locker rooms.

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 of 4 miles to the inch. The showcases 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 are the following exhibits: East side—Cases containing fossil specimens, and a systematic collection of rock specimens and small mining relics. North side—An excellent working model of a mine headframe, hoist, skip, and stamp mill, along with Comstock mining relics. West side—A display of Comstock Lode ores, relics, pictures, and maps, along with a display of mine models of various types. South side—Prehistoric footprints in sandstone as found in the prison yard at Carson City, along with pictures and plaster casts.

The basement contains a display from the San Francisco Golden Gate Exposition of murals depicting mining and 1849 scenes, twenty replicas of United States gold, silver, and copper coins; sixteen illuminated Rand-McNally maps, wired to show the location and production of the chief metals and minerals of the United States; models of dredges, and an illuminated case displaying copper products from mine to brass. In addition there is a collection of rock drills from the time of the Sutro Tunnel to the present day, models of mines and equipment, and a large collection of ore specimens from various parts of the world. The most recent addition to the basement display is the valuable Joseph D. O'Brien mineral and curio collection, the gift of F. S. Markham.

Many valuable gifts have been made to the Mackay Museum too numerous to list, 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 anyone who wishes to inspect or study the various collections.

Biological Collections

The biological collections are in the Agriculture Building. A portion of the 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.

Herbaria

The Herbarium, located in the Agriculture Building, now contains approximately 20,000 sheets, comprising what is probably the most complete collection of Nevada plants in existence. It is particularly valuable in studying the distribution of native and introduced plants in the State and for checking identifications of plants sent in by Nevada citizens. The collection of grasses is especially full. Roughly 13,000 of the specimens were collected as a cooperative project with the Bureau of Plant Industry of the U. S. D. A., the Works Progress Administration participating. The herbarium is in charge of the botany staff.

The Nevada Agricultural Experiment Station herbarium now contains 15,750 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 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; samples of inorganic salts prepared by J. T. Baker Chemical Company; distillation products obtained from crude petroleum prepared by the Standard Oil Company and the Texas Oil Company, and zinc products prepared by the New Jersey Zinc Company.

Information for Students

General Statement

The University endeavors to anticipate the needs of students and to provide them with a good home and with congenial surroundings for intellectual and social growth during their college years. Having in mind, also, that modest financial means should not be an insuperable bar to higher education, the administration makes every effort to reduce the necessary cost of attendance at the University. At the same time, the student should remember that even in an institution where much of the cost is borne by the State, higher education cannot be cheap if it is to be good. No student should attempt to attend the University without some financial backing. On the other hand, the University is able to offer assistance to worthy students, and there are many means within the community by which a serious and capable student can help himself.

Student Expenses

A student's expenses will depend somewhat upon his course of study, but more upon his personal habits and the standard of living which he allows himself. A student's expenses may be conservatively estimated as follows:

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	$390.00	$415.00	$440.00
Room	80.00	135.00	270.00
[3]Laundry	25.00	35.00	50.00
[4]Books, stationery, etc.	60.00	75.00	90.00
Fees (laboratory, athletic, health service, etc.)	74.00	80.00	96.00
Fee (registration and incidental)	25.00	25.00	30.00
[5]Totals	$654.00	$765.00	$976.00

For a more detailed consideration of these expenses, see *Tuition, Fees,* and *Conditions* below, or consult the index for page references.

[1]The low and moderate estimates apply to residents of dormitories. The

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. Applications for campus employment should be made to the Chairman of the Campus Employment Committee, in the office of the Dean of Men. 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.*

It is clearly better, both for the individual student and for the common student life on the campus, that students 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 devote many hours each week to work for pay. *Particularly it is desirable that first-year students should, if possible, plan to finance fully their first University year without the necessity of working for pay.*

EVERY STUDENT FROM NEVADA SHOULD HAVE AT LEAST $175 CASH IN HAND, AFTER REACHING THE CAMPUS, TO START ANY UNIVERSITY YEAR PROPERLY. OUTSIDE STUDENTS SHOULD HAVE $275 IN HAND TO START THE YEAR.

Tuition

The State of Nevada offers its citizens free tuition at the State University. Students from without the State should read the following statement from the Compiled Laws of Nevada which governs the payment of nonresident tuition.

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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 $100 each semester.

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

[4]All engineering students will require complete drawing outfits and slide rule. These cost from $55 to $65. 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 the 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.

WHEN THE REGENTS MAY CHARGE TUITION. Section 7735, Chapter 167, Statutes of Nevada 1945, paragraph 10. *The board of regents of the University of Nevada shall have the power to fix a tuition charge for students at that university; provided, however, that tuition shall be free*

(a) *to all students whose families are bona-fide residents of the State of Nevada, and*

(b) *to all students whose families reside outside of the State of Nevada providing such students have themselves been bona-fide residents of the State of Nevada for at least six months prior to their matriculation (first registration) at the University.*

The Board of Regents set this tuition charge, payable by students from outside Nevada, at $100 per semester, beginning with July 1945.

A rebate of two-thirds of this nonresident tuition will be made if a student withdraws before the end of the third week in a semester; a rebate of one-half of this charge will be made if the withdrawal occurs between the end of the third week and the end of the eighth week, but no rebate will be allowed if withdrawal follows the end of the eighth week.

LIVING CONDITIONS

The University makes every effort to assure students of suitable living conditions, food, and housing. The core of the housing system is provided by the University dormitories, which supply complete living facilities for a considerable number of men and women. Here the young people have good rooms, meals prepared with dietetic control, and a supervised social life. A number of fraternities and sororities, national and local, maintain chapter houses which are considered part of the campus. They offer certain social advantages, along with good living conditions, and are under the supervision of the University administration. In addition to these facilities, exclusively for students, living quarters and dining rooms are available on a commercial basis in Reno, which, as a small city, offers a variety of accommodations. University regulations covering the living conditions of students are relaxed in the cases of young people living with their parents in the community.

RESIDENCE HALLS

Manzanita and Artemisia Halls — Manzanita and Artemisia Halls provide campus residence for women students. Here the students learn group living. They have their own self-governing body and funds. The social directors and their assistants are college women who work for the best interests of the students.

All unmarried women students who are not residents of Reno

or Sparks are required to live in one of the women's residence halls during their entire freshman year. The only exception to this rule may be made by the Dean of Women: (1) 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; (2) when parents have filed in advance a request that a freshman student be permitted to live with a sister who has reached the age of 25 years. Residence privilege in these halls will not be granted to married women unless they were formerly students of the University. Women students not living in a residence hall are required to select accommodations approved by the Dean of Women.

Application for residence privileges in Artemisia and Manzanita Halls should be made by students enrolled in the University during the latter part of the spring semester. The applications will be considered in order of their receipt. New students will receive an application for residence privilege when they receive their admission card from the Committee on Admissions. The residence form should then be completed immediately and mailed to the Dean of Women together with a check* made payable to the Board of Regents.

Room rent for each semester (with roommate) $36.

Room rent will be returned in full to the one making the reservation when notification of desire to cancel reservation is sent to the Dean of Women one week prior to the date of registering. If withdrawal is made from the University before the end of the third week of the semester, two-thirds of the room rent fee will be refunded. If withdrawal is made after the end of the third week and before the end of the eighth week, one-half of the room fee will be refunded. No refund will be granted 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 Halls as adopted by the Artemisia and Manzanita Hall Association in consultation with the Dean of Women and the Social Directors.

3. Be provided with bedding for single bed, including sheets, pillow cases, blankets, and spread.

If window draperies, white curtains, and rugs are desired, they must be supplied by the students. White tailored glass curtains are furnished by the University. All personal articles and wear-

*The University cannot accept any checks unless the full amount of the check is due to the University—that is, the University cannot pay over to the student any cash balance.

ing apparel should be plainly marked with the name of the owner.

Take care of their own rooms and linen.

Men's Residence Halls—The University is currently providing living accommodations for single men in Lincoln Hall, in three dormitories for veterans only in Highland Terrace, in the old Gymnasium, and the Field House. All dormitories are under direct supervision of the Dean of Men, and all assignments are made from his office. Applications for accommodations may be secured from the office of the Dean of Men, and all new students will be supplied with application forms by the Office of Admissions when the student receives his card of admission to the University.

To be honored, all applications must: (1) *Be on file with the Office of the Dean of Men at least three weeks prior to the opening day of the semester;* (2) *be accompanied by a sum covering the room rent for the semester concerned. All checks and money orders for rent should be made payable to the Board of Regents.*

Room rent is as follows:

For each man for each semester.....$40.00
For each man for a five weeks summer course....$15.00

Rent will be returned in full to the applicant if due notification is sent to the Dean of Men, one week prior to the opening of the dormitory for the semester, of desire to cancel the reservation. If cancellation or withdrawal is later than one week prior to the opening of the dormitory for the semester, but not later than 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 a men's dormitory, nor will space be reserved, until the room rent for the semester has been paid. The applicant must agree to accept the space reserved for him by the Office of the Dean of Men. It is not possible to notify an applicant as to the specific place allotted to him until he arrives on the campus.

The Dean of Men reserves the right to reject an application when in his opinion the applicant would not be a desirable resident of a dormitory.

The Dean of Men reserves the right to require a student to vacate his room space when in his opinion the conduct of the student is contrary to the best interests of the dormitory and the University.

All residents of Lincoln Hall are required:

(1) To abide by the regulations of the dormitories as adopted by the student residents and approved by the Dean of Men.

(2) To provide themselves with the following articles: One bedspread; at least two heavy blankets; one comforter; one pillow; one mattress protector pad 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 for the floor are desired, they also must be supplied by the individual.

The University furnishes lights, heat, sheets and pillow cases (which it launders), beds and mattresses, mattress covers, dressers, tables and chairs, clothes closets or lockers. Laundry facilities and equipment are provided for those who desire to do their own washing and ironing. The individual must supply his own electric iron.

Family Living Accommodations—The University has 36 family units in the Trailer Court, and has 112 apartment units in the Victory Heights housing project. All family units are allotted to veterans only, and on the basis of priority, with residents of Nevada and former students from other States receiving preference. The current cost for family units is:

Trailer Court .....$20.00 per month
Victory Heights apartments..... 34.00 per month

Occupants are required to furnish all personal items, including dishes, tableware, cooking utensils, bedding, rugs, draperies, etc.

All applications for family dwelling units should be addressed to the Office of the Dean of Men. Application forms will be sent upon request. New students will automatically receive application forms from the Office of Admissions when the applicant receives his card of admission to the University.

Applications should be on file with the Office of the Dean of Men not later than four weeks prior to the opening date of the semester for which the accommodations are desired. Notice of acceptance or rejection of the application for a family unit will usually not be sent earlier than two weeks prior to the opening of the particular semester. All occupants of family units are required to vacate them immediately upon withdrawal from the University or upon graduation therefrom.

The University Dining Hall

For the accommodation of the students the University conducts a Dining Hall under the supervision of a trained dietitian. The price of board will be $45 per month, which may be raised or lowered without notice, in line with current prices. 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.

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 at the Dining Hall.

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. 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 for necessary absences or from withdrawals from the dining hall will not be made for a period of less than one week. For absences involving one week or more, the rate of rebate will be 4/5 of the amount paid by the student for the period in question. Due notice must be given and permission secured in advance, or no rebate will be allowed.

Preferences in Dining Hall and Dormitories Given to Nevada Students

The Board of Regents has 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.

Such preferences for Nevada students in the dormitories are open to all who apply not later than two weeks 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.

Fees

All students are liable to some fees, although the total is seldom large. Students electing curricula requiring extensive equipment or considerable laboratory materials pay necessarily higher charges. Fees may also be assessed for disciplinary reasons, especially to insure prompt attention to necessary procedures, for example, in registration. A list and explanation of fees follows:

Late Registration Fees

Each student shall complete his registration by the close of registration day; otherwise he shall pay to the Comptroller 75 cents for each day thereafter until his registration is completed.

A fee of $5 is charged for those registering later than the end of the week including enrollment days. *No exception is made to the rule.*

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, and is not rebated.

Registration and Incidental Fees

A registration fee of $7.50 per semester and an incidental fee of $5 per semester are to be paid by every student. These fees are not rebated.

Uniforms

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

Students in foods will be expected to wear suitable colored wash dresses. Those majoring in dietetics are expected to have three white uniforms.

Cadets enrolled in basic military courses normally deposit $20, $5 to guarantee against loss of texts and $15 to guarantee the uniform. An excuse from drill constitutes a relief from $15 of the deposit. Expenses for advanced students depend on current uniform costs and are arranged each year.

Laboratory Fees

Laboratory Fees — Departments giving laboratory courses must charge fees to cover special expenses incidental 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 at the beginning of the second semester.

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.
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.

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 $13 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.

Visitors' Fees

Students securing the privilege of visiting classes will be charged a fee of $2 per course credit hour.

TABLE OF TUITION CHARGES, FEES AND DEPOSITS PER SEMESTER

	Fees	
Agronomy 346, 359, 360, 464, 468	$5.00	
Agronomy 216, 315, 316, 317, 318, 401, 415	3.00	
Agronomy 201, 202	2.00	
Animal Husbandry 203	10.00	
Animal Husbandry 356, 459	5.00	
Animal Husbandry 461, 462	3.00	
Art 101, 102, 105, 107, 115, 121, 251, 252, 253, 254	3.00	
Art 103	4.00	
Associated Students Fee	13.00	
Bacteriology 351	5.00	
Botany 103, 355	4.00	
Botany 203, 231, 364, 475, 476	4.00	
Botany 222	1.00	
Botany 315, 317, 375	2.00	
Botany 370	2.00	per lab. credit
Business Administration 221, 222	5.00	
Change of registration per course (see page 89)	1.00	
Chemistry 101, 122, 231, 232, 271, 312, 333, 341, 342, 391, 443, 497, 498, 514, 546, 553, 554	8.00	
Chemistry 124, 242, 451, 452	4.00	
Chemistry 599 (fee per credit hour)	4.00	
Civil Engineering 241	3.00	
Civil Engineering 242, 363, 367	5.00	
Civil Engineering 369, 372	4.00	

	Fees
Dairy Husbandry 461, 462	$3.00
Dairy Husbandry 102, 352, 355	5.00
Dairy Husbandry 354	10.00
Deposit, General	10.00
Deposit, Military, for basics taking drill	20.00
For basics not taking drill	5.00
For advanced students	Arranged each year
[1]Diploma (Degree or certificate)	6.00
Drawing Outfits	20.00 to 30.00
Education 133	4.00
Education 141	3.00
Education 388	1.50
[2]Electrical Engineering 231-232-233-234, 91, 92, 93, 94	5.00
Electrical Engineering 353, 354, 368, 375, 463, 464, 469, 481, 482	5.00
Farm Mechanics 211, 220, 332, 335, 341, 353, 356	5.00
Farm Mechanics 312	7.50
Geology 211, 351, 325, 352	2.00
Geology 212	3.00
Health Service	6.00
Home Economics 255, 494	8.00
Home Economics 131, 132, 357	8.00
Home Economics 250	5.00
Home Economics 499	12.00
Home Economics 115, 116, 118, 366, 367, 496	4.00
Home Economics 253, 488	2.00
Home Economics 487	3.00
Library	2.50
Matriculation (new students only)	5.00
Mechanic Arts 203, 205	5.00 per credit
Mechanic Arts 226	5.00
Mechanic Arts 220	7.50
Mechanic Arts 207	(To be arranged)
Mechanical Engineering 464, 465	5.00
Mechanical Engineering 480	2.50 per credit
Metallurgy 341	15.00
Metallurgy 356	2.50
Metallurgy 368, 471	5.00
Metallurgy 479, 480 (Fee according to work).	
Physical Education (Men)	1.00
Physical Education (Women)	2.50
Physics 119, 357, 358, 363, 377, 378	5.00
Physics 205, 206, 493, 494	2.50 per credit
Physics 368	5.00
Physics 375, 376	8.00
Poultry 101	5.00
Poultry 108	2.00
Reexamination Fee	1.50
Special Examinations for Entrance or Advanced Standing, each	3.00

[1]If two diplomas are granted in one year, the charge will be $6 for the first and $5 for the second; if three diplomas are granted in any one year, the charge will be $6 for the first, and $5 each for the second and the third. These prices are subject to change according to prices charged to the University.

[2]Fee depends on project undertaken.

	Fees
Sports (women, depending upon activity)	$1.00 to $12.00
Teacher Appointment Service	2.50, 1.50
*Transcript of student record	1.00
Tuition to non-Nevadans	100.00
Visitors	2.00 per hour
Vocational Interest Test, Cost of Material	.25
Zoology 103, 259	4.00
Zoology 333, 335, 337	2.00
Zoology 101, 322, 352, 364	3.00
Zoology 346	5.00
Zoology 491 (fee determined by type of work).	
Zoology 209, 211	6.00

Students should be prepared to pay any of the above charges due to the University at registration time.

Rebates

A rebate of two-thirds of all *laboratory, library, and hospital fees, room rent,* and *nonresident tuition* will be made if a student withdraws before the end of the third week in a semester; a rebate of one-half of these charges will be made if the withdrawal occurs between the end of the third week and the end of the eighth week, but no rebate will be allowed if withdrawal follows the end of the eighth week.

The University Health Service

With the exception of graduate students and of students registered in five, or fewer, hours, all students are charged a Health Service Fee of $6 per semester. The funds obtained from this fee are used to provide an enlarged health service in accordance with the general practice of other colleges and in line with the recommendations of The American Student Health Association. Students paying the fee are entitled to the following privileges and subject to the restrictions imposed by them:

1. A thorough medical and physical examination at the time of entrance with such subsequent examinations and check-ups as may seem desirable in order to ensure the individual's physical fitness for the scholastic and athletic program which the student would like to undertake.

2. Any student found on such examination to be suffering from some chronic or handicapping ailment which makes it unlikely that he can effectively carry on his studies, will be advised accordingly and may be required to limit his activities.

3. Any student found to be a carrier of an infectious disease of such a nature as to make him a menace to the general health

*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.

of the campus may be required to discontinue his work at the University.

4. Standard immunity tests for certain infectious diseases may be given, and, when practicable and desirable, susceptible individuals may be immunized.

5. Any student who refuses to comply with any health regulation established by the State or local boards of health or by the University administration may be denied the privilege of registering or continuing work in the University.

6. Free daily consultation periods with the college physicians and nurses will be provided for all students who wish to consult about health matters. The chief object of these consultations is the detection of illness before it becomes serious. Students are urged to take advantage of it. The privilege should, however, not be abused by expecting unreasonable services at unreasonable times.

7. *Injuries or Illness Incurred On the Campus.* A student injured or taken ill while on the campus is entitled to the following benefits without additional charges: (a) Necessary emergency attention; (b) All laboratory examinations, X-rays, prescriptions, and medicines which may be required by the University physician in the course of the treatment in the infirmary; (c) use of the infirmary for a period not exceeding two weeks in any semester, including meals, treatment, visits of University physician, and general nursing.

NOTE: The term "campus" as used in this and succeeding paragraphs is hereby defined as the geographic limits of the campus proper, and all fraternities and sororities or other living quarters under supervision of University authorities and devoted exclusively to housing University students.

8. *Injuries or Illness Incurred Off the Campus.* A student injured or taken ill off the campus is subject to the following regulations: (a) All calls for medical or nursing service, whether provided by members of the regular infirmary staff or by other doctors and nurses, must be paid for by the individuals requesting such service; (b) a student injured or taken ill off the campus must pay all expenses of transportation to the campus, and must pay for all other expenses incurred off the campus by or through such illness or injury; (c) a student injured or taken ill off the campus may use the University Infirmary, provided that the student in question and his attending physician agree to rest convalescent care in the hands of the University physician and nurse, and provided he pay for all meals, laboratory examinations, X-rays, prescriptions, and medicines for the entire period of hospitalization.

9. After a period of two weeks hospitalization in any one semester, regardless of where the injury or illness occurred, the

student will be charged an additional $2 per day for such extended period.

10. Requests for consultation periods with the University physician at times other than regular consultation periods at the infirmary must be paid for by the individual requesting it. A student may be hospitalized in the infirmary only upon the recommendation of the University physician acting in his capacity as such.

11. The Student Health Association will not be responsible, financially or otherwise, for the treatment and care of injuries incurred by a student participating in intercollegiate athletics, either in training or in competition, except as may be provided for all other students. Payments by the Health Association for X-rays for athletic injuries may not exceed $20 per semester for any individual. All X-rays to be paid for by the Health Association must be ordered by the University physician. Any insurance compensation recovered from the State Insurance Fund for athletes shall be prorated between the Health Association and the Board of Athletic Control, according to expenditures for the injury for which the payment is received.

12. When an operation is advised or deemed necessary the student must make his own arrangements and assume the responsibility for the payment of all surgical, nursing, and hospital costs connected therewith.

13. Certain injuries and illnesses may be deemed by the University physician to be of such a nature or degree of severity that they cannot be cared for adequately at the University Infirmary. In such cases the student will be so advised, and the student will make his own arrangements for care elsewhere at his own expense.

14. Neither the University nor the Student Health Association will assume any responsibility for the payment of hospital or other medical expenses incurred on or off the campus, unless such expense is expressly authorized by the University Health Committee. In certain instances of unusually heavy medical expenses, and when student health funds make it possible, the Student Health Committee, solely at its own discretion, may provide some financial relief to a student.

15. The failure to make use of the health services offered will not be accepted as a reason for exemption from the payment of the health service fee or for refunds therefrom in any semester.

Social Life and Recreation

Student life at the University of Nevada is lively, and provides ample opportunity for recreation. The University is situated in a small city which is mainly a resort community; nearby are the High Sierras, with recreational opportunities the year around.

Associated with the University are a variety of professional, semi-professional, and social organizations which provide almost any sort of social diversion that the student may wish and can afford. For a list of these groups, see *Organizations* in the index.

Policy of the University Toward 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.

Student Self-Government

Students at the University of Nevada enjoy an unusual degree of self-government, in which they gain valuable experience for democratic citizenship. Student affairs generally are in control of the Associated Students of the University of Nevada (A S. U. N.), which delegates a part of its authority to the Associated Women Students (A. W. S.). This organization functions through a Senate, through committees appointed by it with the cooperation of the University administration, and through officers elected by the student body under its supervision. Among the more important committees through which the Senate functions are the Finance Control Committee, the Board of Athletic Control, and the Publications Board. Dormitories have their own legislative and disciplinary organizations.

The political activity of the student body is highly democratic. Anyone who fulfills the eligibility rules for students in good standing may aspire to any office in the gift of the student body, and young men and women from all walks of life do rise to positions of considerable authority and responsibility. The constitution and bylaws of A. S. U. N., A. W. S., Pan-Hellenic Council, and the Interfraternity Council of the University of

Nevada are printed in the *Student Handbook*, which is available at a nominal sum on the campus, or by addressing A. S. U. N.

Physical Education and Athletics

Required Physical Education

Every student who is a candidate for graduation from the University will be required to complete the prescribed two-year basic course of physical education unless excused therefrom by the Dean of the College concerned.

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. 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.

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.

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

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

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, and enough material to qualify her to direct physical education.

All women in the University are given opportunity to engage in leisure time activities through the Women's Recreation Association, a student organization administered by students under the direction of a faculty adviser. The activities sponsored by this organization are: Archery, badminton, basketball, bowling, dancing, equitation, golf, hiking, hockey, riflery, softball, swim-

ming, tennis, etc. The Women's Recreation Association sponsors interclass competition in as many activities as possible.

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.

A fee of $3 per semester is charged for locker, laundry, and all equipment needed, excepting shoes and socks which are provided by the student. Bowling, golf, riding and swimming carry fees varying from six dollars to twelve dollars, depending upon conditions prevalent during the current year.

Athletics

Intercollegiate athletics is under the jurisdiction of the Board of Athletic Control, composed of five members chosen from the faculty, the student body, and the alumni.

Excellent facilities are provided on the Mackay Athletic Field for all branches of athletics. Football, baseball, track, basketball, and tennis are the sports of special prominence at present.

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.

Faculty Athletic Committee

The duties of the Faculty Athletic Committee are as follows:

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.

The eligibility rules are printed in the current issue of *Regulations for the Guidance of Undergraduates.*

Military Department

1. The Air Force and Army ROTC's are organized under authority contained in the National Defense Act. The primary objective of this training is to qualify students for positions of military leadership in time of national emergency. The basic training of the first two years lays the practical and theoretical foundations of general military knowledge and contains most of the subjects essential to a noncommissioned officer's rating. The advanced training of the second two years leads to a reserve commission. A select few receive commissions in the regular services. The local units offer Infantry and Air Force training. The nature and scope of the courses are uniform throughout the United States. Basic training in the two courses was identical during the first three years, 1946–1949, after the Air Force unit was established here. Commencing in September 1949 the basic

training of Infantry and Air Force cadets will be identical during the first year but separate during the second year. Air Force basic cadets will be further separated into groups corresponding to the two divisions of the Air Force advanced courses.

2. The University of Nevada Cadet Corps comprises all students enrolled in the Military Department. Special regulations for the Cadet Corps are published in pamphlet form and are issued to each cadet upon registration. Familiarity with these regulations and careful observance of their requirements is demanded of every member of the corps.

3. Courses leading to a reserve commission as Second Lieutenant of Infantry, U. S. Army:

Freshman Year (basic) Military 101, 102.
Sophomore Year (basic) Military 201, 202.
Junior Year (advanced) Military 301, 302, 303.
Senior Year (advanced) Military 401, 402.

When the candidate has satisfactorily completed this program and received the final approval of the PMS&T and the President of the University, he is eligible for appointment in the Officers' Reserve Corps, Infantry Branch, U. S. Army.

4. Courses leading to a reserve commission as Second Lieutenant, U. S. Air Force:

General Administration—Basic: Freshman year, Military 101, 102; sophomore year, Military 215, 216. Advanced: Junior year, Military 315, 316, 314; senior year, Military 415, 416.

Aircraft Maintenance Engineering—Basic: Freshman year, Military 101, 102; sophomore year, Military 211, 212. Advanced: Junior year, Military 311, 312, 313; senior year, Military 411, 412.

When the candidate has successfully completed one of these programs and has received the final approval of the PMS&T and the President of the University, he is eligible for appointment in the Air Reserve of the U. S. Air Force. No pilot training is offered in either of these courses.

5. When registering in military at the University for the first time, students are required to take examinations to determine their physical and mental fitness for enrollment in the ROTC.

6. Every male student is required by University regulations to complete two years of basic military training unless exempted therefrom by the chairman of the department.

7. The following are prohibited by law from enrollment and are automatically exempted upon presentation of necessary evidence:

a. Aliens are prohibited by law from enrollment in any ROTC courses.

b. Those who, upon initial registration in the University are over 26 years of age are prohibited from enrollment in basic

courses. A student over 26 years of age who is otherwise qualified may enroll in advanced courses provided advanced training in the military department can be completed prior to the attainment of his thirtieth birthday.

c. Enlisted personnel of the armed forces who are in an active status.

d. Commissioned personnel of the armed forces in any status.

8. The following may be exempted:

a. Those who have satisfactorily completed, at an educational institution, equivalent training under supervision of an officer regularly detailed as PMS&T. Exemptions may cover part or all basic training. A student who enters with one year of advanced military credit may be deferred in order that he may take subsequent training with his classmates.

b. Those who have completed equivalent training in the armed forces of the United States and have received honorable discharge therefrom. Exemptions may be based on service in the Army, Navy, Marine Corps, or Coast Guard, including all their various components. Six months of active duty is generally accepted as the equivalent of one year of basic training at the University. Active service which is sufficient to justify exemption from the basic requirement may be insufficient when evaluated as a prerequisite for an advanced course.

c. Those who are physically unfit for military duty. Physical examination is prerequisite to initial enrollment either in a basic course or an advanced course.

d. Those who transfer to this University after having completed freshman and sophomore work in an educational institution which did not require military training during that period of their enrollment.

e. Students who have completed training in a reserve unit, such as the Naval Reserve or the Marine Corps Reserve. Freshmen enrolled in the reserve may have the University military requirement deferred for one year. Their reserve training during this year will be evaluated at the beginning of the sophomore year. Failure to acquire the normal total of equivalent training will be deemed sufficient justification for requiring the full two years of ROTC training thereafter.

9. The U. S. Government furnishes uniforms, texts, and instructional equipment. Advanced course students also receive $75 per month while at camp and commutation of rations amounting to about $26 per month for 18 months, providing this does not duplicate other allowances.

10. The texts, 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 govern-

ment property arising from misuse or neglect on the part of the student a deposit of $20 will be required from each basic taking drill, $5 from each basic who is not taking drill, and an undetermined amount not over $10 from each first year advanced student when it becomes necessary to provide a guarantee to supplement the uniform allowance.

11. For the time being, cadets who obtain reserve commissions are liable for immediate active duty as Reserve Officers for tours of two years. Air Force officers may elect pilot training for one of these two years. Any Infantry or Air Force officer on such active duty may embark on a competitive tour with a view of obtaining a permanent commission in the regular service. Present quotas indicate that about one-sixth of those on competitive tours will win permanent commissions. Reserve officers may transfer in grade to the National Guard to fill existing vacancies.

12. Students who have earned wartime commissions through other channels than the University of Nevada ROTC may be granted advanced credit toward graduation in any college. Each case will be considered separately, primary consideration being given to the type of commission, scope of military education which qualified the student for his commission, and the nature of duty as a commissioned officer.

13. For the past four years, the University has been canvassed during the winter for those interested in obtaining appointments as cadets at the service academies. These appointments are for four years, all expenses paid by the government, with permanent commissions upon graduation. The list of academies includes West Point, Annapolis, and the Coast Guard Academy.

14. Participation in the ROTC program constitutes a continuing ground for deferment of induction under the selective service laws. At the time of initial enrollment, every cadet is considered as a prospective officer. The screening process operates continuously. Quotas available to the PMS&T are sufficient to assure deferment for all first year basics who maintain a satisfactory standing. At the end of the second year of basic training, those who are acceptable for the advanced courses are given the opportunity to sign a contract with the government binding them to (1) two years of advanced training including summer camp; (2) acceptance of a reserve commission if awarded at the end of the course; and (3) two years of active duty as a commissioned officer upon graduation if called. Deferment from selective service induction continues for those in good standing in the advanced courses. If the date of graduation from the University is later than the date of completion of the advanced course, deferment continues until graduation provided the University course does not take more than five years. The development of military leaders by means of the ROTC program is so

important to the nation that provision is made for continued deferment even after the inception of a national emergency.

Honors and Awards for Military Excellence

Distinguished Graduates—During the second year of advanced training, a limited number, not exceeding one-third of the class enrollment, will be announced as Distinguished Students. Upon graduation from both the ROTC and the University, some of these will be designated as Distinguished Graduates. Any Distinguished Graduate is eligible for a permanent commission in the regular service without further qualification. Those who aspire to regular commissions should consult with their military instructors regarding coordination of courses outside the Military Department.

Governor's Medal—Sec. 69(2), Chap. 153, Statutes of Nevada 1929, as amended by Chap. 214, Statutes of Nevada 1937, and further amended by Chap. 190, Statutes of Nevada 1945, makes provision for the presentation annually of a medal to be known as the "Governor's Medal," to a student of the military courses of the Military Department of the University of Nevada (ROTC), "whose proficiency in military training, observance of the rules of military courtesy and intelligent attention to duty has received the approbation of the Professor of Military Science and Tactics of the institution."

In accordance with the requirements of this Act, the name of the student entitled to this award will be transmitted by the Professor of Military Science and Tactics, through the University President, to the Governor of the State, on or about April 15 each year. Presentation will be made by the Governor of Nevada on Governor's Day.

President's Trophy. A gold medal will be awarded for the season's best individual record in ROTC rifle competition.

Kerak Temple Award. The three best-drilled first year cadets will receive gold, silver, and bronze medals. The name of the winner will be engraved on a permanent trophy which remains in the possession of the Military Department.

Scabbard and Blade Medals. At a competition to be held in April, the three best-drilled second year cadets will be chosen. Scabbard and Blade presents to them gold, silver, and bronze medals.

Reserve Officers' Association Award for Best Second Year Cadet. The name of the winner of the Scabbard and Blade Gold Medal will be engraved on a permanent trophy presented by the Reserve Officers' Association and retained in the Military Department.

Minor Sports Awards. Rifle shooting is a recognized minor sport. Teams are trained and competition is conducted by the Military Department but all students are eligible for the varsity rifle team. Sweaters are awarded for the ten best season's records in intercollegiate competition.

UNIVERSITY REGULATIONS

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.

Methods of Admission

Evidence that a student has had desirable preparatory education, qualifying him for satisfactory study toward a degree, may be shown by:

(1) Certificate of graduation from an accredited high school or other preparatory school.

(2) Transfer from any university or college of recognized standing.

Admission by Certificate from an Accredited Preparatory School

Students desiring to enter the University should file their credentials with the Director of Admissions as soon as possible after the close of school in June in order that records may be examined to determine whether or not they meet the University entrance requirements. Receipt of credentials will be acknowledged and an application blank forwarded to the student. Registration may be delayed and the student greatly inconvenienced if the credentials are filed later than 30 days before the opening of the semester.

Admission by Transfer

Applicants for advanced standing from universities and colleges of recognized standing 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 chairmen 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.

Graduates from a one-year professional course in an accredited normal school are allowed one year's credit on advanced standing in the College of Arts and Science only.

A student may receive no more than two years' credit on advanced standing for graduation from a two-year normal school or junior college. Such students will be expected to fulfill all requirements for graduation, including all special requirements outlined for the freshman and sophomore years.

Students transferring from a recognized university, college, junior college, or normal school with junior standing may be excused by proper authority from the requirements prescribed by this university for military training and physical education, but must meet all other requirements for graduation prescribed by their college (Agriculture, Arts and Science, or Engineering) and must have no entrance deficiencies, see *Requirements for Admission to Regular Standing*, below.

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

Requirements for Admission to Regular Standing

Fifteen high school units. Applicants for admission to regular standing in the University of Nevada must present satisfactory evidence of high school graduation and of having completed 15 units of acceptable high school or preparatory work. A "unit" represents a year's study of any subject in a secondary school. Two periods of laboratory work, or shop work, count as the equivalent of one recitation.

Limited Freshmen. High school graduates who have 13 or more but less than 15 acceptable high school units may be admitted as limited freshmen. Courses to remove these deficiencies shall take precedence over all other subjects in the University. Requirements pertaining to grades for these students are the same as for regular students. See also *Removing Entrance Deficiencies* below.

Restricted Freshmen. A restricted freshmen is defined as one who presents 15 acceptable units, but who is deficient in no more than 2 of the required units as specified below under *Specific Subject Requirements.* See also *Removing Entrance Deficiencies*, below.

Special Students. Students who cannot present 13 acceptable high school units may register as special students if they can meet

the other requirements for special students. See *Special Students* below.

Ten Academic Units. Of the 15 units required for admission, at least 10 must include acceptable academic subjects. See *Academic Subjects Acceptable for Admission* below.

Quality Units. Of the acceptable units presented for admission to first-year standing by applicants who are not graduates of Nevada high schools, six units must carry grades of 80 percent or better, and four of the six must be in acceptable academic subjects. See *Academic Subjects Accepted for Admission* below.

Specific Subjects Requirements. Of the 15 units required for admission to regular standing, each college makes its own specific subject requirements, as follows:

THE COLLEGE OF ARTS AND SCIENCE

School of Education

English, 3 units.
Mathematics, 2 units, algebra and/or geometry.

THE COLLEGE OF ENGINEERING[1]

All Schools

English, 3 units.
History, 1 unit.
Plane geometry, 1 unit.
Algebra, 1½ units.
Solid geometry or trigonometry, ½ unit.
Chemistry, or physics, 1 unit.

THE COLLEGE OF AGRICULTURE

School of Agriculture
School of Home Economics

English, 3 units.
Mathematics, 2 units (algebra and/or geometry).
Natural science, 1 or 2 units. } 3 units required.
Social science, 1 or 2 units. }

REMOVING ENTRANCE DEFICIENCIES—

Time Requirements. All students, except special students, who may be admitted to the University with entrance deficiencies must remove these deficiencies before their second year of residence.

Method. College credit may be canceled at the rate of four

[1]It is recommended that the entering student present all the subjects here listed, especially that of 1½ units of algebra; otherwise, it is probable that he will be unable to graduate in 4 years. Consult meaning of the term "restricted" freshman, and see also Mathematics 151 and Mathematics A. It is advised that the electives include 2 units of foreign language, preferably modern language.

college credits for each high school unit necessary to satisfy the requirements of the college in which the student is registered.

In order to satisfy the specific subject requirements for entrance into his college (see above), the restricted freshman and special student must take the placement examination, and, if necessary, the noncredit course offered by the department concerned, see English A, Mathematics A and B. If a noncredit course is not offered by the department, college credit may be used. However, if the grade obtained in the college course is C or higher, the units need not be canceled, but may be used in a regular manner for college graduation.

Special Students. In addition to the method described above, entrance credits will be waived for special students who can meet the scholarship requirements set forth in the paragraph on obtaining regular status. See *Special Students* below.

ACADEMIC SUBJECTS ACCEPTED FOR ADMISSION

	Units
English—	
1. (1st year)	1
2. (2d year)	1
3. (3d year)	1
4. (4th year)	1
5. Public speaking	1
6. Journalism	1
Languages—	
1. French (1st year)	1
2. French (Advanced)	1–3
3. German (1st year)	1
4. German (Advanced)	1–3
5. Spanish (1st year)	1
6. Spanish (Advanced)	1–3
7. Latin (1st year)	1
8. Latin (Advanced)	1–3
9. Italian (1st year)	1
10. Italian (Advanced)	1–3
Social Sciences—	
1. History (World)	1
2. History (U. S.)	1
3. History (Med. and Mod.)	1
4. Civics	½ or 1
5. Economics	1
6. Sociology	1
Mathematics—	
1. Algebra	1
2. Plane geometry	1

	Units
3. Advanced algebra	½
4. Solid geometry	½
5. Trigonometry	½
Sciences—	
1. General science	1
2. Physics	1
3. Chemistry	1
4. Physical geography	½ or 1
5. Botany	½ or 1
6. Biology	½ or 1
7. Physiology	½ or 1
8. Hygiene	½ or 1
Commercial geography	½ or 1
Commercial law	½ or 1

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

Vocational Subjects. A maximum of five units in vocational subjects accepted by the high school toward graduation are acceptable for admission.

Special Students

Students who wish to become candidates for a degree

Requirements. Persons of serious purpose and good character who are 21 years of age or more who wish to enroll for study at the University but find that their credentials do not satisfy the entrance requirements, may, at the discretion of the Director of Admissions, be admitted as special students. They will be required to submit a program of the work which they wish to undertake at the University and to have the program approved by the dean of the college in which registration is sought. This approval will largely depend on the evidence which the student submits as to his ability to pursue successfully the desired course of study. If the applicant has attended other colleges or universities previous to making application here, an official transcript of such work must be submitted before the application will be considered.

Registration. Special students will usually be expected to register in not fewer than 10 hours in courses of elementary character. They will be permitted to register in advanced courses only upon the approval of their dean and the head of the department concerned. Special students are subject to all the rules related to registration and scholarship.

Obtaining Regular Status. Special students may obtain regular status by removing entrance deficiencies. See *Removing Entrance Deficiencies* above.

A special student may matriculate as a regular Junior if he has satisfied the *specific subject requirements* for entrance into his college (see above), has satisfied all regular lower division requirements of his college course, and has successfully carried the regular prescribed course of his college during four semesters with an average of 2.5 grade points in all hours for which he has been registered, except cases of W, and has no unremoved conditions or failures. To retain the status of special student for a longer period than 4 semesters requires the permission of the dean of the college.

STUDENTS WHO ARE NOT CANDIDATES FOR A DEGREE

Persons of serious purpose and good character who are 21 years of age or more who wish to enroll for study at the University may, at the discretion of the Director of Admissions, be admitted as special students and classified as *adult specials.* In general, such students will wish to take a few definite courses for training in one specific field of study, or several general courses for their cultural value. If the student has a bachelor's degree and does not wish to work for a master's degree, he may be registered as a *graduate special.*

VISITORS

With the consent of the dean and the instructor concerned, visitors may be enrolled. They shall be governed by the regular university rules and are due to pay a visitor's fee. 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.

Regulations for Registration

1. Registration Procedure. In accordance with the regulations prescribed by the Administrative Council the student must (a) present his admission card in order to secure his registration coupons from the Registrar, (b) secure the approval of the department or the professor for each course in which he wishes to enroll, (c) if a man, adjust his classification for military training with the Professor of Military Science and Tactics, (d) make out class cards, (e) secure the approval of the adviser, (f) present his admission card in order to receive the approval of the dean of his college, (g) present the registration card to the Registrar for computation of fees to be paid, and (h) present the card to the Comptroller and pay the fees. The Comptroller will retain the card and file it with the Registrar.

2. THE REGISTRATION PERIOD—

a. *Registration Days.* Preceding the beginning of instruction at the opening of each semester, a registration period is announced. For this time see the University calendar.

b. *Completing Registration.* Each student shall complete his registration by 4:30 p. m. of the day his registration card is issued.

c. *Late Registration.* All registration must be completed by noon Saturday of the second week of the semester except in special cases approved by the Dean of the College concerned.

3. FEES FOR DELAYS IN REGISTRATION—

a. *Delay in Completing Registration.* Each student who fails to complete his registration by 4:30 p. m. of the day his registration card is issued shall pay 75 cents for each day or fraction of a day thereafter until his registration is completed.

b. *Late Registration.* A fee of $5 shall be charged anyone registering after the week including the enrollment days.

4. CHANGES IN REGISTRATION—

a. *Adding a Course.* After the registration coupon has been filed with the Registrar, a student may add a subject in accordance with the rules. No subject may be added after the close of registration in a semester, except in special cases approved by the Dean of the College concerned.

To add a subject a student must secure the proper card from the Registrar, the signature of the professor of the course he wishes to add, and the approval of his adviser and the dean of his college. He must then file the card with the Registrar.

b. *Withdrawal from a Course.* After the registration card has been filed with the Registrar, a student may withdraw from a course provided the withdrawal meets with the approval of the instructor concerned, the adviser, and the dean of the college. If he withdraws during the first six weeks of the semester, W will be recorded; if he withdraws after the first six weeks, W will be recorded when the student is passing, F when the student is not passing. The symbol W is not a scholarship grade and shall not be used in any manner in determining a student's scholarship record.

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 recommendation, and to the adviser. 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 student is not officially withdrawn from the class until the instructor has received notice from the Registrar. The date of withdrawal

shall be the date on which the slip is filed with the Registrar.

c. *Withdrawal from the University.* Any student wishing to withdraw from the University during the first six weeks of the semester may do so, with the withdrawal to be recorded as W. After the sixth week of the semester a student who desires to withdraw from the University will report to each instructor for his grade. If the instructor reports the student as passing, a record of W will be recorded. If the instructor reports the student as not passing, a record of WF will be recorded. The record of WF shall not be used in computing grade points for graduation. In case the student receives records of WF in more than one third of his work, he will be subject to probation or suspension.

5. Fees for Changes in Registration. After the registration coupon has been filed with the Registrar, a student who adds a subject must pay a fee of $1 for each course added. The fee will be omitted only when the change is caused by faculty action or at the request of the dean of the college concerned.

6. Rebates. A rebate of two-thirds of all *laboratory, library,* and *hospital fees, room rent,* and *nonresident tuition* will be made if a student withdraws before the end of the third week in a semester; a rebate of one-half of these charges will be made if the withdrawal occurs between the end of the third week and the end of the eighth week, but no rebate will be allowed if withdrawal follows the end of the eighth week.

7. Precedence of Certain Courses—

a. *Required Courses.* In registering, all students must give precedence to required courses in regular sequence; an elective course may not be retained to the exclusion of a required course. In no case may a required course be deferred beyond one year.

b. *Entrance Deficiencies.* All but special students are required to remove entrance deficiencies before their second year of residence or they will be placed on probation. A freshman who fails to remove his entrance deficiencies may register on probation as a sophomore provided he includes in his schedule courses which will serve to cancel the deficiencies. The schedule of a student enrolled in courses for a second time in order to remove entrance deficiencies shall not exceed a total of 15 hours.

c. *Failed Courses.* Any required subject in which a student has failed takes precedence over all other subjects in the arrangement of his program. Such a failed subject must be repeated in class as soon as the study is repeated in the University program.

8. Required Courses. Each student in registering must observe the specific course requirements in his particular college. He must also observe the following general University requirements and register for them in the specified year:

a. *English 101–102.* All students must register for English 101 and 102 in their freshman year.

b. *Physical Education.* Every student who is a candidate for graduation from the University will be required to complete the prescribed two-year (basic) course of physical education unless excused therefrom by proper authority. This basic course is scheduled for both semesters of the freshman and sophomore years.

c. *Military for Men.* Every male student who is a candidate for graduation will be required to complete the two-year basic course of military training unless excused therefrom by the PMS&T. This basic course is scheduled for both semesters of the freshman and sophomore years.

d. *Political Science 301–302.* The State law of Nevada provides that no student shall receive a diploma of graduation or a teacher's certificate without previously having passed a satisfactory examination upon the Constitution of the United States and of Nevada. Under this provision it is necessary for students to take at an appropriate time Political Science 301 and 302.

9. Number of Hours To Be Registered—

Regular Students. Except in special cases each student is expected to register for the number of hours regularly prescribed by his college for the course which he has elected.

In the College of Engineering the regular prescribed course consists of 18 hours each semester; in the College of Agriculture, from 15½ to 17½ hours each semester; in the College of Arts and Science, 15½ hours each semester in the freshman and sophomore years, and 16 hours each semester in the junior and senior years.

10. Registering for a Reduced Number of Hours—

a. Any student may enroll for a program one-half to three credits lower than the program usually required by his course. To reduce total credits by more than three from the required course, the student must have the permission of the dean of his college.

b. *Compulsory Reduction.* Under the following conditions the student will not be permitted to register for the regular number of hours prescribed:

(1) 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.

(2) A student on probation shall not be allowed to register for more than 80 percent of the regular number of hours of his prescribed course.

(3) 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. This rule applies also to changes in registration.

(4) The registration of a student enrolled for the second time in courses in order to remove entrance deficiencies shall not be permitted to exceed a total of 15 hours.

11. EXTRA HOURS—

a. In case a student during his previous semester received no condition or failure and received an average of 3 grade points for each hour for which he was registered, excepting cases of W, he may be permitted, at the discretion of the dean, to enroll in a maximum of three hours above that specified for his course.

b. The deans are allowed to grant a student an additional hour beyond the limit specified in the rules.

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

12. REGISTRATION IN COURSES NUMBERED 300 AND ABOVE. No course with the number 300 or above will be open to freshmen or sophomores without the written recommendation of the chairman of the department and the approval of the dean of the college.

13. REGISTRATION FOR NEW STUDENTS—

a. *Orientation.* Registration in the fall semester for all new students includes a program of orientation during the first week.

b. All new students must be photographed and must take the physical examinations and mental tests scheduled during the first week.

14. CLASSIFICATION OF STUDENTS. Two classes of students seeking college credit are recognized—regular and special:

a. *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.

(1) *Freshmen.* Limited freshmen are those high school graduates who can present 13 or more but less than 15 acceptable high school units. Restricted freshmen are those presenting 15 acceptable units, but are deficient in not more than 2 required units.

(2) *Sophomores, Juniors, Seniors.* A regular student is classified by his dean as a sophomore, junior, or senior, when he has completed within 3 hours of all the required credits and specific subjects in his course.

b. *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.

15. Intramural Transfers—

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, effective at the time the transfer is made, the details of the transfer to be handled by the Registrar and the deans concerned.

16. Honorable Dismissal From the University. 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.

Regulations for Scholarship

1. The Grading System—

a. *Marks Used.* The grading system shall consist of four passing grades, of condition, of incomplete, and of failure. The passing grades shall be designated in descending order of excellence as A, B, C, and D; a condition shall be marked E, an incomplete I, and a failure F. W indicates withdrawal without failure; WF indicates withdrawal from the University with failure.

b. *Definition of Marks.* A, *excellent,* is that quality of work which may generally be expected from approximately the best ten students out of one hundred in any given course or subject; B, *good,* that quality produced by the next best twenty students; C, *average,* the quality produced by the middle forty students; D, *passing,* the quality produced by the twenty students just below the middle forty. E for *condition* is a temporary mark and is to be used when the quality of the work is doubtful and further opportunity is desired for the student to demonstrate satisfactory achievement. I is used when a student has for acceptable reasons been unable to complete the required work by the close of the semester. Whenever an I is given, the instructor must state upon the final report sheet the reason why the student was unable to complete the work. WF is used only when a student withdraws from the University and is failing in one or more courses.

2. GRADE POINTS. Each credit earned with a grade of A carries four grade points; a grade of B, three grade points; a grade of C, two grade points; a grade of D, one grade point; a grade of F, no grade points.

3. DETERMINATION OF FINAL GRADES. Each instructor will determine the final grade[1] of his students by any method he may consider best adapted to his course.

4. FINAL EXAMINATIONS. Final examinations shall be held at the end of each semester in all undergraduate courses except courses in which an examination is not practicable or appropriate. If a final examination is not given, the class shall meet during the examination period and shall continue for at least one hour.

All students are required to take the final examinations in all their courses in which examinations are given, or attend the class meeting held in place thereof. In case of emergency when it may prove an unreasonable hardship to a student to take a final examination at the scheduled time, the student, upon written petition to the Administrative Council, may be granted such dispensation as the Council may determine.

5. SCHOLARSHIP AVERAGE. In determining scholarship average the sum of the grade points received for each hour for which the student is registered shall be divided by the total number of hours for which the student is registered. In determining averages, E and I shall be counted as carrying no grade points. The symbol W is not a scholarship grade and shall not be used in any manner in determining a student's scholarship record.

6. CHANGING A PASSING GRADE. 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.

A course may be repeated for the purpose of changing the grade received, but no additional credit can be gained by repeating a course.

7. REMOVING A CONDITION—

a. *Students Eligible.* No disqualified student may be issued a permit to remove a condition. A student not in residence may receive a permit only by vote of the faculty or permission of the President.

b. *Procedure.* 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, or under whom the deficient work

[1]Final grades in any semester are not available to a student who is in arrears in his financial obligations to the University. As soon as the financial obligation is discharged, the grades become available.

is to be completed, a statement from the Registrar saying that he is eligible and that the fee of $1.50 has been paid.

c. *Fee for Removing.* Application for the removal of a condition will not be accepted by the Registrar until a fee of $1.50 has been paid.

d. *Time for Removing.* A condition may be removed only during the next semester of residence after the condition is incurred. If a condition is not removed by the end of the first semester of residence thereafter, the Registrar shall record a grade of F.

The individual instructor may set the date on which the condition may be removed.

e. *Grade After Removing Condition.* Upon the removal of a condition, the grade of D shall be given.

8. Removing an Incomplete. Incomplete work must be completed by the close of the student's first semester of residence after the I was incurred; when so completed, the student shall receive whatever grade the instructor deems proper; if not so completed, the I becomes an F.

9. Removing a Failure—

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

b. *Failure in Elective Courses.* Failures and conditions in elective courses are not required to be made up.

10. Probation—

a. *Conditions Resulting in Probation—*

(1) A student must be passing in at least two-thirds of his work or he may be placed on probation by the Administrative Council, unless he can show that his unsatisfactory record is due to reasons for which he is not personally responsible.

(2) A student may be placed on probation any time his conduct warrants such action.

(3) A student who does not remove his entrance deficiencies before his second year of residence shall be placed on probation.

(4) Whenever a student fails for two consecutive semesters to earn a minimum semester average of 2.0 grade points, he may be placed on probation.

(5) While on probation, a student is subject to suspension if he does not reduce his grade-point deficiency.

b. *Penalties for Probation*—

(1) A student on probation shall not be allowed to register for more than 80 percent of the regular number of hours of his prescribed course.

(2) While on probation a student may not take part in intercollegiate debates, or dramatics, or serve on the staff of any student publication, or become a candidate for any student office. It is the duty of the Faculty Committee on Student Affairs to enforce this rule.

c. *Release from Probation.* Students placed on probation remain on probation until released therefrom by action of the Administrative Council. To be removed from probation, a student must raise his scholastic average to 2.0 grade points on his entire University record.

11. Suspension, Expulsion—

a. *Scholarship*—

(1) A student not passing in at least one-half of his work may be suspended from the University, unless this unsatisfactory record is due to reasons for which he is not personally responsible.

(2) A student who is on probation at the end of each of two consecutive semesters may be suspended from the University.

(3) If the class preparation, attendance, or progress of a student toward a degree is deemed unsatisfactory, the student may be suspended from the University at any time.

b. *Deportment*—

A student may be suspended or expelled from the University by action of the appropriate committee any time his conduct warrants such action.

c. *Readmission After Suspension*—

Students who have been suspended for unsatisfactory scholarship can reenter only by application to the Administrative Council. If they are permitted to reenter, such students shall be on probation until released therefrom by the Administrative Council.

12. Disqualifications. A student who has twice been suspended shall not be permitted to register in this University.

13. Requirements for Graduation—

a. *Scholarship Requirements*—

(1) Students enrolled prior to August 1940: In order to graduate, every student enrolled in the University prior to August 1940 must earn 252 grade points. Each hour of 2.5 or above earned under the marking system in operation until

August 1940 shall be counted as four grade points under the new system of grading.

(2) Students entering in the fall of 1940 and thereafter: In order to graduate, every student entering the University of Nevada in the fall of 1940 and thereafter, shall have an average of 2 grade points for each hour for which he has been registered at the University of Nevada except cases of W and WF.

b. *Credit-Hour Requirements*—

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

In the College of Agriculture, 132 credits are required for graduation.

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

The value of a *credit is defined* as three hours of work per week for one semester (usually one class hour plus two hours of preparation).

c. *Subject Requirements.* In addition to specific subject requirements imposed by each college for its several courses, certain subjects are required by the University of all candidates for a degree. These courses as listed under Required Courses (see Index), are English 101 and 102; the two-year basic course in military science for men, and in physical education for both men and women, and Political Science 301 and 302.

14. Mid-Semester Reports. At mid-semester instructors will report students whose grades are D, E, F, and I with a statement in each case of the reason for the low mark. When because of their low grades students are subject to probation or suspension, they will be required to meet with the Administrative Council.

15. Advanced Credits. Students who have attained knowledge in a given field by experience or by study, other than in a recognized institution of learning from which transfer credits are available, may take an examination for advanced credit.

To take an examination for credit the student must obtain an application from the Admission Office. When this application is properly signed by the student, the Instructor and the Chairman of the Department, and carries the Comptroller's Stamp showing that the fee of $3 is paid, it should be returned to the Chairman of the Committee on Advanced Standing. A certificate of eligibility to take the examination will be issued, signed by the Chairman of the Committee. When this certificate is presented to the Instructor, the examination is authorized.

The Instructor will record the semester hours credit, the grade,

and his signature on the certificate and together with a copy of the examination return it to the Admissions Office.

The amount of credit granted on the basis of such special examinations may not exceed the regular work of one semester in the college in which the student is registered.

No student will be permitted to take such an examination during a semester in which he has already enrolled for the maximum number of hours permitted.

No Freshman or Sophomore student may take such an examination in Upper Division Courses.

16. SUSPENSION FROM CLASS. 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 dean and of the committee concerned.

DEGREES AND DIPLOMAS*

The College of Arts and Science confers upon its graduates the degrees of Bachelor of Arts, Bachelor of Science, Bachelor of Science in Business Administration, Bachelor of Science in Chemistry or Chemical Technology, and Bachelor of Arts in Journalism.

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 Electric 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 of 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 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 $6 is made for all baccalaureate diplomas. If two diplomas are granted in any one year, the charge will be $6 for the first, and $5 for the second. The charge for a teacher's

*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.

diploma, if received in addition to a baccalaureate diploma, is $1.

ADVANCED DEGREES. For advanced and graduate degrees, see *Graduate Study* in the Index.

DIPLOMAS

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

RESIDENCE REQUIREMENT

Students spending less than three years at the University must be in residence the last year to be eligible for graduation; students who have spent three years or more here may be allowed to complete a maximum of eight units *in absentia* after their last registration here. *Premedical, prelegal, and prenursing students who have completed three years of approved work here may complete the work of the Senior year by satisfactory work in a professional school.*

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 the bachelor's degree unless he has completed, in residence, credit equivalent to the requirements for one full year's work in the college in which he expects to receive the degree. Attendance at the Summer Sessions is construed as resident study, three summer sessions at the University of Nevada being considered the equivalent of one semester's residence.

UNDERGRADUATE THESES

Whenever a thesis is required for an undergraduate degree in any department, school, or college of the University, and such thesis is to be filed in the University Library, the format of the thesis must conform to the requirements determined by the Graduate Committee for master's theses, in such matters as general style and mechanics, size and quality of paper, and type of binding.

MISCELLANEOUS INFORMATION

In this section of the catalogue is brought together various information which may be of interest for reference if printed in some detail, but which seems not suited to inclusion in this form in the earlier portions of the book. The section provides information concerning publications, lectures, organizations, foundations, prizes, awards, scholarships, and gifts to the University; for page references, see the Index under these titles.

Public Lectures

The University endeavors to provide its students with opportunity to hear important figures of the day and to become acquainted with music and art. This endeavor is furthered by civic organizations in Reno, which make available various lecture and concert series, most of which are open to university students at reduced rates. The University presents lecturers of eminence, either through regular Assemblies, or through the agency of various organizations associated with the University. Of special note are the Fulton Lectures, provided through the Robert Lardin Fulton Lecture Foundation.

Among the lectures presented during 1948–1949 are the following:

Commencement, 1948

June 5—Phi Kappa Phi Address, "Palomar and the Expanding Universe," by Dr. Howard P. Robertson, Mathematical Physicist of the California Institute of Technology.

June 6—Baccalaureate Address, "The Dimensions of Life," by the Reverend William Ennes Clawson, Jr., pastor of the Presbyterian Church, Livermore, California.

June 7—Commencement Address, "Imagine Your Future," by Henry J. Kaiser, industrialist.

Public Lectures and Assemblies

April 1—"Ghandi," by Miss Muriel Lester, world traveler and author.

June 29—"A Master Pattern of Personality," by President John O. Moseley.

July 12—"A Thousand Years of Freedom," by Mr. Charles Corwin White, analyst of current history, and business executive.

September 20—"A Physicist Speaks to a Social Scientist," by Dr. Joseph Kaplan, physicist of the California Institute of Technology, under the auspices of the Sigma Xi Club.

September 21—"On the Necessity of Growing Up," by President John O. Moseley.

October 25—"The United Nations," a symposium by speakers of the University Debate Squad.

October 29—"Europe Now," by Mr. Donald Grant, world traveler, lecturer and author.

November 23—"Snow Survey, Its Genesis and Significance," by Dr. J. E. Church, consultant on snow surveys, under the auspices of the Sigma Xi Club.

December 1—"Youth Looks at Life," by Dr. Edward Howard Griggs, author, lecturer, and philosopher; President of the Department of Philosophy of the Brooklyn Institute of Arts and Sciences.

December 14—"American Economic Realism and Political Idealism," by Dr. E. E. Ericksen, Lecturer in Philosophy at the University of Nevada, under the auspices of the Phi Kappa Phi.

December 16—"Emil und die Detektive," a full-length German film, under the auspices of the German Club.

December 17—"The Formation of Rubber from Plants," by Dr. James Bonner, Professor of Biology at the California Institute of Technology, under the auspices of the Sigma Xi Club.

January 5—"The Story of Palomar," a sound-color film, presented under the auspices of the Astronomical Society of Nevada.

January 21—"Wind in the Sahara," by Colonel R. V. C. Bodley, author and lecturer.

February 22—"Italy's Foreign Policy Since the Liberation of the Country," by Dr. Paolo Treves, Member of the Italian Chamber of Deputies.

University Publications

A variety of publications carry the name of the University, some because they are published directly by the University for organizational purposes or as a service to the State and the public, some because they are published by research bureaus more or less intimately associated with the University, some because they are the official publications of University students.

Student publications are under the general supervision of the A. S. U. N. Other University publications are coordinated through the Faculty Publications Committee, which undertakes to assure that all publications are worthy the name of the University. The Research Committee grants aid in research leading to publication, and in some cases supervises publication for the University. In addition, many individual faculty members are

engaged in publication, submitting their work to commercial publishers.

A brief survey of publications associated with the University follows:

Official Publications

The Bulletin—The official publication of the University, issued quarterly or oftener.

The Alumnus—The official publication of the Alumni Association.

Student Publications

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

The U. of N. Sagebrush—A weekly newspaper issued throughout the University year by The Associated Students of the University of Nevada.

A. S. U. N. Student Handbook—The official handbook of the student body, published annually by The Associated Students of the University of Nevada.

Organizations

Life at the University of Nevada is enriched by a variety of organizations. Some of these encourage and direct the scientific, scholarly, artistic, or humanitarian interests of students and of the faculty associated with the University. Some provide honorary recognition of achievement. Others are purely social, or combine learned interests with social recreation. Brief descriptions of these organizations follow.

The Alumni Association

The Alumni Association was organized on June 1, 1895, to perpetuate undergraduate ties, promote good fellowship, and to advance and protect the interests of the University of Nevada. On December 23, 1947, the Association was incorporated under the laws of the State of Nevada, and its official title is now The University of Nevada Alumni Association, Inc.

All graduates and former students of the University are eligible for membership in the Association. Active membership is maintained by payment of dues. Annual membership is $3, and a life certificate is $100. The Association now operates on a calendar year with a general meeting and election of officers held each Homecoming.

In 1945 the policy of establishing active chapters in the principal cities of Nevada was inaugurated. The first active chapter in the State was established on November 25, 1945, at Las Vegas. Chapters have also been chartered at Elko and Winnemucca. In

addition, there are chapters in Washington, D. C., and in Southern California (Los Angeles).

The general affairs of the Association are managed by an Executive Committee composed of a maximum of fifty directors who are elected each Homecoming along with the Association officers. Regular meetings of the group are held on the third Wednesday of each month in the Alumni Office on the campus.

All matters pertaining to the Association should be addressed to: Alumni Association, University Station, Reno, Nevada.

Officers for 1948–1949

Bill Blakley, '32.....President
Walt States, '38.....Vice President
Mark Yori, '36.....Past President
Rex Daniels, '46.....Director of Alumni Office

Alumni Executive Committee

Central

Irvin Ayer, '32.
Oliver Aymar, '37.
Loriamae Bankofier, '36.
George Basta, '43.
John Benson, '36.
Rodney Boudwin, '44.
Blythe Bulmer, '33.
Louis Capurro, '40.
Bill Cashill, '37.
Lino Del Grande, '34.
Carl Digino, '47.
Leon Etchemendy, '42.
Wyman Evans, Jr., '33.
Mel Hancock, '30.
Max Jensen, '38.
Inez Johnson, '30.
Keith Lee, '33.
Charles Mapes, '42.
George Lohse, '35.
Tosca Masini, '47.
Frank McCulloch, '41.
Russell McDonald, '38.
Jack Myles, '33.
Bill Parish, '45.
Audry Saake, '42.
Bernard Smith, '43.
Merle Snider, '43.
Jeanette Spatz, '38.
Myneer Walker, '41.
Tony Zeni, '22.

Regional

Fred Baldini, '31.....Battle Mountain
A. E. Cahlan, '20.....Las Vegas
Margery Cavanaugh, '34.....Tonopah
Floyd Edsall, '47.....Lovelock
Anne Gibbs, '37.....Fallon
Emery Graunke, '37.....Gardnerville
Keith Gregory, '32.....Wells
Chester Howard, '38.....Las Vegas
Peter Kelley, '41.....Carson City
Joseph T. McDonnell, '33.....Washington, D. C.
Robert Metten, '38.....Las Vegas
Ed Montgomery, '34.....San Francisco, California
Gus Newman, '29.....Los Angeles, California
Louis Peraldo, '41.....Winnemucca
Ed Recanzone, '33.....Yerington
Cliff Segerbloom, '38.....Boulder City
Eugene Tidball, '47.....Ruth
Doug Trail, '48.....Elko

American Association of University Professors

The Nevada Chaper 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."

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 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 home varsity games, contests, or events under the University's management, and the subscriptions to the *Sagebrush* and the *Artemisia* and to the payment of his class dues.

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 cooperation. The dues are 50 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 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. The society was founded in March 1935.

The Faculty Club

The Faculty Club is composed of the members of the staff and their wives. The meetings are held monthly in the home economics rooms of the Agriculture Building. At each meeting a lecture of general interest is given, followed by a social hour. The meetings are open to visitors.

The Humanities Group

The Humanities Group is an organization of men on the faculty actively engaged in research in language, literature, history, mathematics, philosophy, and social subjects. They meet once a month to read scholarly papers and to discuss methods of research in the humanities.

The Nevada Academy of Natural Sciences

Founded in November 1940, the Nevada Academy of Natural Sciences has as its purpose the stimulation of interest in and study of natural sciences in Nevada. Membership is open to any person interested in the botany, geology, or zoology of the State. It is not limited, however, to Nevadans. Bimonthly meetings are held on the campus, at which speakers present papers, usually concerning some phase of the natural history of the State. The meetings are open to the public. The Academy publishes a monthly newsletter containing items contributed by members.

Sigma XI Club

This organization is composed of members of the Society of Sigma XI, national honorary scientific society, whose purpose is the promotion of scientific research. Regular meetings are held throughout the year for the purpose of presentation and discussion of local research projects. Although active membership is limited to local faculty members and others who are members of the national society, the aim of the Club is to stimulate and foster research throughout the University. Each year the Club sponsors a lecture by a nationally known scientist.

Honor and Honorary Societies

Alpha Epsilon Delta — An honorary premedical fraternity whose purpose is to encourage excellence in premedical work by furnishing a goal toward which the student may strive during the early semesters of the premedical career. Its purpose is to bind together similarly interested students. Membership is open to all students preparing themselves for the study of medicine, dentistry, nursing, or closely allied professions who have completed at least the work of the freshman year with an acceptable scholastic record.

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.

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.

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. Open meetings are held for all those interested in the study of literature. The Nevada chapter received its charter in 1931.

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

Delta Delta Epsilon—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.

Delta Sigma Rho—A national honor society composed of graduate and undergraduate forensics students. Admission is restricted to those who have achieved an outstanding record in intercollegiate forensic competition. Its prime object is to emphasize the value of effective and successful speech and debate. The Nevada chapter was established in 1948.

Forensic Key—An organization of men and women who have earned the official student body award for intercollegiate debate or oratory. All students are eligible to compete for places on the debate squad. Those who represent the University in intercollegiate debates and oratorical contests receive the award and automatically become eligible for membership in the organization. The local chapter was established in 1933.

Gothic "N" Society—An honor organization of women, election to which is based on sportsmanship, sports, participation, health habits, sophomore rank, scholastic average of C 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.

Kappa Tau Alpha—A national fraternity honoring scholarship in journalism in institutions offering work of recognized professional standing in this field. Students are elected from the highest ten percent of the junior-senior journalism group. The Nevada chapter was established in the spring of 1936.

Masque and Dagger—The Nevada chapter of this national honorary dramatic fraternity was established to recognize students who have shown ability in dramatic work. Election to membership is based upon work done in acting and backstage.

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.

Phi Alpha Theta—A national honorary society whose purpose is to encourage excellence in history study, by furnishing a goal and stimulus for students in this field. Eligibility for election is based on completion of twelve hours or more of work in history with satisfactory scholastic average.

Phi Kappa Phi—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. The local chapter was established in 1912.

Sagens—An honorary women's service and pep organization, the purpose of which is to assist at all student body functions. Membership is limited to five upperclass women in each sorority and in the Independents.

Sagers—A local service organization, members of which are chosen from among outstanding upperclassmen. Its many campus activities include that of building the Homecoming bonfire. Membership in the Sagers serves as a stepping stone to membership in Blue Key.

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 selected cadet officers of the Reserve Officers' Training Corps at 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 unit, Company C, 7th Regiment, was organized May 14, 1929.

Sigma Delta Chi—A national professional journalistic fraternity. Members are elected annually from among upperclassmen preparing for the profession of journalism and with above-average scholarship. The Nevada undergraduate chapter was chartered in the spring of 1948.

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.

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.

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.

Clubs and Associations

The Aggie Club—Founded by the agricultural students in 1909, the Aggie Club is an active organization of men students and faculty members of the college. The club meets the last Wednesday of each month to carry on business and social activities.

Artemisia and Manzanita Association—Residents of these halls are organized into a body under the name of Artemisia and Manzanita Association, with president, vice president, secretary and treasurer elected for one year. The purpose of the association is to carry on campus traditions and to develop leadership and social poise.

The Canterbury Society—The Nevada group of this nation-wide organization was formed in September 1940 for Episcopal students and their friends. The group sponsors cultural and social programs.

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

The Chemistry Club—In 1941 the Chemistry Club applied for and received its charter as the University of Nevada Chapter of the Student Affiliates of the American Chemical Society. All students registered for the degree Bachelor of Science in Chemistry or in Chemical Technology or who are majoring in chemistry and whose chief academic interest is in the field of chemistry are eligible for active membership. Associate membership is open to a limited number of those who are interested in chemistry, but whose course of study does not make them eligible for active membership. The purpose of the organization is to keep its members in touch with present activities and development in the chemical field and to foster interest in the science of chemistry. From its membership, elections are made each year to the honor society, Sigma Sigma Kappa. Meetings are held on the second Tuesday of each month.

The Circle—A group of male undergraduate students organized to further creative and critical literary activity at the University of Nevada.

Civil Engineering Club—Its function is to promote closer relationship between the American Society of Civil Engineers and students. Membership is open to all students in the School of Civil Engineering. Meetings, which are in the form of lecture and discussion, are held monthly.

The Commerce Club—Open to any interested student, especially one following a course in economics or business. Leading businessmen discuss their particular fields at each of the monthly meetings.

ROTC Corps of Sponsors—The Corps of Sponsors is an organization closely allied with the ROTC Corps of Cadets. They have a distinctive uniform, drill with the Cadets, and stage exhibition drills. The unit is limited to 45 girls and 5 alternates. Election and tryouts are staged during the month of September subsequent to the opening of school.

The Crucible Club—This is a student organization of the Mackay School of Mines. The club meets once a month for addresses by visiting engineers on mining, metallurgical, and geological subjects. The Crucible Club is an affiliated student society of the American Institute of Mining and Metallurgical Engineers.

Electrical Engineering Club — The University of Nevada Branch, American Institute of Electrical Engineers, was organized in 1922. All students registered in electrical engineering are eligible to membership. Meetings are held monthly, at which time student technical papers are presented or the branch is addressed by some prominent member of the profession.

Associated Engineers—A society which includes the students

of the four engineering schools. The purpose is to plan such activities as Engineer's Day and meetings which are of interest to all engineering students.

Fine Arts Club—Originated to promote interest in and appreciation of the arts among students. Exhibits of local and out-of-State artists are on display monthly in the gallery in the Art Buildings.

Fraternities—The following fraternities have chapters, the figures in parentheses giving the dates chapters were established at this University: National fraternities—Sigma Nu (1914), Sigma Alpha Epsilon (1917), Phi Sigma Kappa (1917), Alpha Tau Omega (1921), Theta Chi (1925), Lambda Chi Alpha (1929); local fraternity—Sigma Rho Delta (1942).

The Highlanders—A local organization whose membership is composed of student veterans living in the veterans' dormitories at Highland Terrace. Its purpose is to promote a well rounded student life for the members through organized participation in the various activities of the campus, both social and nonsocial.

The Home Economics Student Club—A social and professional organization. A member of the American Home Economics Association. Open to all students in Home Economics. Meetings bimonthly.

Independents—A social organization of unaffiliated men and women students, organized for social purposes, for securing representation in student government, and to further the interests of the University. Meetings are held each Monday evening.

The Mathematics Club—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.

Mechanical Engineering Club—The University of Nevada Student Branch of the American Society of Mechanical Engineers was organized in January 1923. All students registered in mechanical engineering are eligible to membership. Meetings are held monthly to enable students to better understand the profession they have chosen. At the meetings student technical papers are presented and discussed, technical films are shown, or the branch is addressed by some prominent member of the profession. This Branch sends representatives to the annual group student meeting held each spring at one of the seven Pacific Southwest Student Branches.

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 Singers, the Reno Civic Chorus and 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 classics and modern musical literature as represented in the fine library of phonograph records.

The Newman Club—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.

The Pilgrim Fellowship—A society open to all students, although organized especially for the religious and social culture of students connected with the Presbyterian and Congregational churches. It holds fellowship with like societies in State institutions throughout the United States and Canada. Meetings are held each Sunday evening at the Manse.

The Nevada Polkateers—A social organization for the enjoyment of and participation in folk and square dancing. Membership is open to all students and staff of the University. Meetings are held weekly.

Sororities—The following sororities have chapters, the figures in parentheses giving the dates chapters were established at this University: National sororities—Delta Delta Delta (1933), Pi Beta Phi (1915), Gamma Phi Beta (1921), Kappa Alpha Theta (1922).

Sundowners of the Sagebrush—The organization is composed of men who are elected to membership because they have exhibited the characteristics of good fellowship. Membership is not restricted to undergraduate students.

The University of Nevada Press Club—A professional and social organization of students in journalism and members of the staffs of the campus publications. Elections are held twice each year.

The University of Nevada Rifle and Pistol Club—An organization which sponsors all organized competitive shooting activities, indoors and outdoors. It is affiliated with the Nevada State Rifle and Pistol Association and with the National Rifle Association.

Wesley Foundation—A national organization of Methodist college students, formed on the Nevada campus in 1940. Its purpose is to bring together Methodist students, and others who are interested, for social and religious development. Meetings,

which are open to all students, are held the first and third Sundays of every month.

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 members attend except by special invitation.

Y. W. C. A.—The Young Women's Christian Association has a branch organization among the students. 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.

AWARDS AND SCHOLARSHIPS

Partly through provisions made by the Board of Regents and the University, and partly by benefactions from organizations and individuals, a considerable number of scholarships, awards, and other advantages are available to students. Some of these awards are in the form of medals or honors, intended to provide recognition for superior work. Others are grants in aid, intended to assist students during the course of their studies, especially students who show exceptional promise. These funds are administered through the faculty Scholarships and Prizes Committee, which is empowered to receive and consider applications. A list of foundations, scholarships, awards, and prizes, with the specifications required by each will be found below. (See also *Honors and Awards for Military Excellence*, pp. 81, 82.)

University Scholarship Honors

Honorable Mention

Semester Honor Roll

A scholarship honor roll which includes the upper five percent of the undergraduate student body who have completed at least fifteen semester hours is announced by the Registrar at the end of each semester.

Senior Honor Roll

At commencement an announcement is made by the Committee on Scholarships and Prizes of those seniors who have taken an average of fifteen hours each semester with an average grade equal to or above the lower limit of the fall semester honor roll.

Four-Year Honor Roll

At commencement an announcement is made by the Committee on Scholarships and Prizes of those graduating seniors having maintained an average grade equal to or above the average of the lower limits of the past seven honor rolls.

Medals

French Medal

Established 1935

A medal is awarded annually 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 French courses throughout the

junior and senior years and who, in the opinion of the chairman of the department of foreign languages, is most deserving of this honor.

The Herz Gold Medal Award

Established 1923

R. Herz & Brothers, Reno jewelers, award a gold medal annually to that member of the graduating class who has attained the highest average scholarship throughout his college course and has taken all of the required work for his degree (to within 8 units) at the University of Nevada. In the event of a tie, the University is privileged to buy a second medal at cost.

Prizes

The Albert Senior Public Service Prize

Established 1924

These prizes were founded by Dr. Henry Albert, formerly Director of the State Hygienic Laboratory, and perpetuated in his memory by Mrs. Albert.

Two prizes of $37.50 each are awarded annually at commencement to two outstanding students on the basis of good scholarship, good character, and worthy service to the University or the community.

The winners of the Albert Senior Public Service Prizes are chosen by the chairmen of the Faculty Committees on Scholarship and Athletics, the Dean of Women, the Master of Lincoln Hall, and the President of the University.

American Association of University Women Memberships

Established 1944

The Board of Directors of the American Association of University Women annually selects three graduating senior girls to receive honorary memberships. The selection is determined upon the recommendation of the Deans of the University and the names of the recipients are announced on Commencement Day.

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 Honorable 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.

The Klute Foreign Language Prizes

Established 1945

A number of prizes of $50 each donated by Col. and Mrs. H. L.

Klute are awarded to graduating seniors as a recognition of work of high merit done as undergraduates in the Department of Foreign Languages. The winners are selected by the chairman of the department and are announced on Commencement Day.

Ginsburg Jewelry Company Awards

Established 1939

At the beginning of the second semester of each year the Ginsburg Jewelry Company of Reno awards a fine watch of seventeen or more jewels to a man and a woman of the sophomore class in regular standing who have been in residence at the University for three semesters. These students must possess outstanding scholarship records, character, high personal conduct, and Americanism. The selection of the winners is made by the University Committee on Prizes and Scholarships.

Scholarships*

1. Jewett W. Adams Scholarship Fund

Established 1942

In conformance with the will of Mrs. Emma Lee Adams, wife of the late Honorable Jewett W. Adams, former governor of Nevada, the Jewett W. Adams Scholarship Fund of $40,000 was established. The interest on this money is used to assist deserving students.

The Committee on Scholarships and Prizes presents the awards with attention to the following qualifications:

Financial need, promise of future leadership, proven scholastic ability, good character, and citizenship.

2. Armanko Office Supply Scholarships

Established 1936

The Armanko Office Supply Company of Reno offers two scholarships of $100 each to students in the Departments of Chemistry and Physics. These scholarships are awarded on Commencement Day by the heads of the Departments of Chemistry and Physics and the Chairman of the Committee on Scholarships and Prizes to students possessing the following requirements:

1. Upright moral character.
2. General scholarship.
3. Outstanding scholastic attainment in the department.
4. Evidence of interest in the field.
5. Completion of a minimum of four hours in the department during the past school year.

*No award in the form of a scholarship will be made unless the recipient is duly enrolled in the University at the time the award is payable.

6. Financial need is considered only when two students otherwise possess equal qualifications.

One half of this award is paid in the fall and the other half in the spring semester.

3. Associated Women Students' Scholarship

Established 1918

The Associated Women Students of the University of Nevada present an annual scholarship of $50 to a woman student who possesses excellent character, good scholarship, and leadership ability.

This scholarship shall be awarded on Commencement Day by the Committee of Scholarships and Prizes from recommendations submitted by the Associated Women Students' Council. The award shall be made to a freshman, sophomore or junior student who has completed at least one year of study at the University of Nevada.

4. Josephine Beam Scholarships

Established 1944

By the will of Josephine Beam, a trust fund was established with the Zion Savings Bank and Trust Company of Salt Lake City, to be known as the Josephine Beam Education Fund. The yearly income of approximately $3,000 is shared equally by the University of Utah and the University of Nevada.

These scholarships are awarded to incoming freshmen by the President of the University of Nevada, the State Superintendent of Public Instruction, and a representative of the trustee, on the basis of high school scholastic record, principal's recommendation, and college aptitude tests.

Each scholarship is paid in two installments: one each semester. The Committee reserves the right to withhold the second payment should the student's first semester record prove unsatisfactory.

5. The Horace P. Boardman Scholarship In Civil Engineering

Established 1941

Fred A. and Betty R. Roemer provide a $100 annual scholarship known as the Horace P. Boardman Scholarship in Civil Engineering.

The individual selected must possess good character and good scholarship and be in need of financial assistance. Also, he should have earned either junior or senior standing as a duly enrolled student in the University of Nevada. Both the principal and alternate are chosen by the Civil Engineering faculty.

One half of this scholarship is payable each semester, provided the winner is regularly enrolled as a student at the University.

6. The Frank O. Broili Scholarship In Electrical Engineering

Established 1942

The late Mrs. Francis Leonard Broili Bradley of Reno bequeathed $5,000 to the University of Nevada. The income therefrom is to be used to establish The Frank O. Broili Scholarship in Electrical Engineering at the University of Nevada, or to be used for this department in such manner as the President and the Regents of the University may determine.

7. The Marye Williams Butler Scholarship

Established 1921

In memory of her daughter Marye Williams Butler, a graduate of the University of Nevada Normal School, class of 1899, Mrs. Sophia E. Williams, Nye County, established a scholarship fund of $1,000.

The income from this fund, payable in the fall semester, is to be awarded by the University Committee on Scholarships and Prizes to that student who has completed mathematics through calculus with an average grade of "B" in all work in mathematics, who has earned due credit in this minimum of mathematics not later than the second semester of his junior year, and who receives no other scholarship.

8. The A. W. (Bert) Cahlan Scholarship

Established 1947

A. E., John F., and Mrs. Marion Cahlan established a scholarship of $200 to be awarded at Commencement to a senior, who, during his or her entire course at the University of Nevada, has manifested the most outstanding qualities of leadership and character and proved himself or herself to be the best citizen of the University community. In selecting the student who is to receive this award, not only is the number of activities in which the student has been engaged to be taken into consideration, but also loyalty to the highest ideal and traditions of the University and altruistic service in all activities in which he has participated.

This scholarship will be awarded by a committee named by the donors, the award to be approved by the President of the University.

9. The Azro E. Cheney Scholarship

Established 1922

The Honorable Azro E. Cheney bequeathed $5,000 in trust to the University of Nevada to be controlled and invested by the Board of Regents. The income from this fund is awarded by

the University Committee on Scholarships and Prizes at each annual commencement to that member of the freshman or sophomore class who is a *bona fide* resident of Nevada and who is certified by the chairman of the Department of English as being the best student in English during that year. Both character and improvement are also considered.

One half of this award is payable in the fall term and the other half in the spring.

10. The Charles Elmer Clough Scholarships In Engineering

Established 1926

Mr. Charles Elmer Clough of Reno established two scholarships in engineering, each of which carries an annual value of one-half of the income received from the Charles Elmer Clough Trust Fund during the calendar year from one University commencement to the next. The scholarships are awarded at the end of each University year, beginning with the award in May 1927.

The winners are chosen by the head professors of the Schools of Civil, Electrical, and Mechanical Engineering from the students enrolled in those schools. The two recipients must be the best all-round students, must be self-supporting in whole or in part, and be of good character and of good scholarship. One of them must have earned senior standing, and the other junior standing, in the University of Nevada.

11. The Daughters of the American Revolution Scholarship

Established 1939

The Nevada Sagebrush Chapter (Reno) of the Daughters of the American Revolution grants an annual scholarship of $50 to either a man or a woman nominated by the University Committee on Scholarships and Prizes for character, leadership, and scholastic attainment, upon the satisfactory completion of at least one year's work in the University.

One half of this award is paid each semester provided the winner is registered in the University.

12. The Thos. E. Dixon Scholarship

Established 1945

This scholarship fund of $3,000, a gift of Mr. Dixon of Caliente to aid deserving students, is administered jointly by the faculty of Lincoln County high school and the Chairman of the Committee of Scholarships and Prizes. The high school faculty chooses the recipient, while the chairman of the University committee determines when payments are to be made.

13. Epsilon Sigma Phi 4-H Club Scholarship

Established 1940

The Nevada Chapter of Epsilon Sigma Phi, honorary society of agricultural extension workers, established the Epsilon Sigma Phi 4-H Club Scholarship of $50 in the College of Agriculture of the University of Nevada.

The Dean of the College of Agriculture and two members of the staff of the University's Agricultural Extension Service selected by Epsilon Sigma Phi, choose as the recipient of the scholarship that boy or girl who has achieved the most in his Nevada 4-H Club work.

The scholarship becomes available to the winner, within one year after his graduation from high school, upon his registration in the College of Agriculture of the University of Nevada. One half is paid one month after the beginning of both semesters of his freshman year.

14. The Major Max C. Fleischmann Scholarships

Established 1938

By successive gifts, Major Max C. Fleischmann has provided approximately $175,000 worth of securities as a scholarship fund. The income from approximately $118,000 goes to regular University of Nevada students, and that from approximately $57,000, to incoming freshmen.

The regular students must fulfill the following requirements:

1. Need financial assistance to the amount of the scholarship in order to continue in the University.
2. Give promise of becoming effective citizens upon graduation and be worthy of such assistance.
3. Show qualities of leadership, good character, high personal conduct, and a spirit of cooperation by active participation in a student activity or activities.
4. Have excellent scholastic records.

These scholarships are paid in three equal installments during the school year.

The freshmen are selected on the following basis:

1. High school scholarship record of seven semesters.
2. High school principal's recommendation.
3. College aptitude test.

One half of these scholarships are awarded in the fall and the other half in the spring semester, providing the student has made a creditable record during his first term of attendance at the University.

15. The Roland Humphrey Goodwin Scholarship of Music

Established 1946

In memory of her son, Roland Humphrey Goodwin, a native

of Reno, Nevada, who depended upon music for his relaxation and inspiration, Mrs. Winifred Goodwin established an annual scholarship of $50 in the Department of Music. This scholarship is awarded on Commencement Day by the head of the Department of Music and the Chairman of the Scholarship Committee with attention to the following requirements:

1. Upright moral character and single.
2. General scholarship.
3. Outstanding scholastic ability in the department.
4. Evidence of interest in the field as shown by participation in band, chorus, or orchestra, or interest in piano, violin or organ.
5. Completion of a minimum of four hours in the department during the past school year.
6. Other things being equal, preference is given to a student intending to specialize in music.
7. Financial need is a consideration. For a student earning all or part of his or her way.
8. To a student of sophomore, junior, or senior standing who has completed his or her freshman year of work at the University of Nevada.
9. It is understood that if the announced recipient of the scholarship does not return to the University, the scholarship will not be given that year.

One half of this award is paid in the fall and the other half in the spring, at least six weeks after the opening of each semester.

16. The Grand Army of the Republic Scholarship

Established 1934–1935

The Woman's Relief Corps of the Department of California and Nevada established the Republic Memorial Scholarship Fund, the interest of which is used for scholarships for descendents of soldiers or sailors of the Union in the Civil War.

The income of the Relief Corps' fund, supplemented by gifts from the Nevada Relief Corps at Carson City, Reno, and Virginia City, provides a $50 scholarship.

One half of this scholarship is paid in the fall and the other half in the spring semester.

17. The Carl Raymond Gray Scholarship In Vocational Agriculture

Established 1926

The Union Pacific Railroad offers an annual scholarship of $100 to a high school boy from each county served by the railroad who has completed a high school vocational agriculture course and who has the highest average rank in scholarship,

supervised practice work, and qualities of leadership. The scholarship is awarded upon enrollment of the winner for a full four-year course in agriculture in the University of Nevada.

The winner is selected by a committee of three appointed by the State Supervisor of Agriculture.

The scholarship is paid as follows: Fifty dollars upon completion of registration in the Agricultural College of the University; $25 upon registration for the second semester, and $25 upon registration for the third semester.

18. The Carl Raymond Gray Scholarships to 4–H Club Members

Established 1926

The Union Pacific Railroad offers annually a scholarship of $100 in agriculture or home economics to one boy or girl 4-H club member in each county served by the railroad, for use in the College of Agriculture or the School of Home Economics of the University of Nevada.

The winner of the award is selected by a committee of three persons appointed by the State Director of Agricultural Extension on the basis of quality and quantity of project work and records, and on the basis of character, interest, qualities of leadership, community activities, school activities, and scholastic standing.

Payment of the scholarship award is made upon certification that the student has enrolled at the University for a course in agriculture or home economics. Payment is made in three installments; the first installment of $50 to be paid upon registration and establishment of the student in the classes of the college; the second of $25 upon registration for the second semester; and a third of $25 upon registration for the third semester.

19. Edison and Laura Smith Memorial Scholarships

Established 1945

Harold's Club of Reno provides an annual scholarship to a graduate of Carson City High School and a resident of the Nevada Orphans' Home. The candidate is recommended by the principal of Carson City High School and approved by the Dean of the college in whose school he expects to register. This scholarship covers all expenses for four years of college work.

20. Royal D. Hartung Industrial Education Scholarship

Established 1942

Under the terms of the will of the late Otto Hartung, the income from his estate was left to the Independent Order of Odd Fellows to be used to establish and maintain an orphans' home to be known as the "Royal D. Hartung Home for Orphans and

Foundlings" with the stipulation that if this provision were not carried out, the entire estate should go to the University of Nevada to establish "The Royal D. Hartung Industrial Education Fund." Inasmuch as there were no orphans or foundlings to be provided with a home, the residue of the estate was conveyed in the summer of 1942 to the University of Nevada to establish "The Royal D. Hartung Industrial Education Fund."

The available income from this fund is awarded annually to a qualified student or students (preferably orphans) who are seeking an industrial education in the College of Engineering.

21. The Herd & Short Scholarship

Established 1944

Mr. Hugh Herd and Mr. Charles Short, clothiers, of Reno, offer a scholarship of $100 to a student in the Department of Economics, Business, and Sociology. This scholarship is awarded on Commencement Day by the head of the Department of Economics, Business, and Sociology, and the chairman of the Committee on Scholarships and Prizes with attention to the following requirements:

1. Upright moral character.
2. General scholarship.
3. Outstanding scholastic ability in the department.
4. Evidence of interest in the field.
5. Completion of a minimum of four hours in the department during the past school year.
6. Financial need, considered only when two students otherwise possess equal qualifications.

One half of this award is paid in the fall and the other half in the spring semester.

22. The Mrs. Carl Otto Herz Scholarship

Established 1526

This scholarship was established by Mrs. Carl Otto Herz of Reno and for several years after her death was continued by Mr. Carl Otto Herz. At the 1930 commencement Mrs. Herz's heirs presented funds to the University to endow perpetually this scholarship in her memory.

The income from this fund is awarded at the end of each University year by the University Committee on Scholarships and Prizes to one of three electrical engineering students nominated by the head professor of electrical engineering. The nominees must be self-supporting in whole or in part, be of good character and of good scholarship and must have earned senior standing in the University of Nevada.

23. Kennecott Copper Corporation Scholarship

Established 1948

An annual scholarship of $750 to a student of the Mackay School of Mines for the senior year who has completed three years' requirements of his course. Selection shall be based upon the following qualities: (a) Proficiency in engineering studies, (b) Leadership, willingness, cooperativeness, initiative and ambition, (c) Ability to direct and stimulate others, and (d) Good health and a physique that commands respect.

The chairmen of departments of the Mackay School of Mines shall recommend to the Kennecott Copper Corporation at least three students from which the Corporation will choose the recipient.

24. The Carrie Brooks Layman Memorial Scholarship

Established 1929

This annual scholarship, established in memory of Carrie Brooks Layman, provides for ten consecutive payments of $20 each to a worthy, self-supporting sophomore or upperclassman or woman student, who while in college, avoids bad debts and abstains from intoxicants and tobacco.

The recipient of this scholarship is 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.

The initial $20 is payable during the first month of the fall semester and after the recipient has completed registration.

25. The William S. Lunsford Scholarship in Journalism

Established 1935

Ethel Lunsford Frost and Harry J. Frost established this annual scholarship of $100 to be known as the William S. Lunsford Scholarship in Journalism.

This scholarship is awarded to a man or woman student having all 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 field of concentration in journalism.
5. Junior or senior standing during the University year the scholarship is held.

The University Committee on Scholarships and Prizes awards this scholarship upon the recommendation of the head of the

Department of Journalism. Should the recipient fail to keep in good standing in his studies, except through circumstances beyond his control, he automatically forfeits the scholarship, which is then awarded to an alternate chosen by the same committee and satisfying the same conditions.

26. The Honorable William O'Hara Martin and Louise Stadtmuller Martin Scholarship in History and Political Science

Established 1946

Anne Henrietta Martin and Clara Martin Wight established a scholarship fund of $2,000 in memory of their parents, Honorable William O'Hara Martin and Louise Stadtmuller Martin, Nevada pioneers.

The income from the fund shall provide an annual scholarship of $50 in the Department of History and Political Science to be awarded on Commencement Day to a woman student completing her sophomore or junior year of college by the chairman of the Department of History and Political Science and the chairman of the Committee on Scholarships and Prizes with attention to the following requirements:

1. Courageous citizenship and high personal conduct.
2. General scholarship.
3. Outstanding scholastic ability in the department.
4. Evidence of interest in the social science field.
5. Completion of a minimum of ten hours in history or political science.
6. Financial need is a consideration only when two students otherwise possess equal qualifications.

One half of this award is paid in the fall and the other half in the spring semester.

26. The Rose Sigler Mathews Scholarship

Established 1920

In memory of his wife, Rose Sigler Mathews, Mr. Isaac R. Mathews of Reno established a scholarship fund of $10,200.

Awards are made by the Committee on Scholarships and Prizes on the basis of scholarship, need, character, and promise of good citizenship.

27. The Emporium of Music Scholarship

Established 1944

Mr. and Mrs. W. R. Woodward offer a scholarship of $100 to a student in the Department of Music. This scholarship is awarded annually on Commencement Day by the head of the Department of Music and the chairman of the Committee on Scholarships and Prizes with attention to the following requirements:

1. Upright moral character.
2. General scholarship.
3. Outstanding scholastic ability in the department.
4. Evidence of interest in the field as shown by participation in band, chorus, or orchestra.
5. Completion of a minimum of four hours in the department during the past school year.
6. Other things being equal, preference is given to the student intending to specialize in music.
7. Financial need is a consideration only when two students otherwise possess equal qualifications.

One half of this award is paid in the fall and the other half in the spring semester.

29. The Grand Lodge of the Independent Order of Odd Fellows Scholarships

Established 1939

This fraternal order authorizes the award of four annual scholarships not to exceed the sum of $150 each. The students who receive these awards are chosen by the I. O. O. F. after recommendations have been submitted to the Board of Trustees and the Scholarship Committee of the Grand Lodge by the Committee on Scholarships and Prizes of the University of Nevada. Two of these scholarships are awarded to young men and two to young women who meet the following requirements and are approved by the Scholarship Committee of the Grand Lodge of Nevada:

1. Must be the son or daughter of an Odd Fellow and a Rebekah in good standing in their respective subordinate lodges in the jurisdiction of the Grand Lodge of Nevada.
2. Must have the approval of the Scholarship Committee of the Grand Lodge of the I. O. O. F. of Nevada.
3. Must be of good moral character.
4. Must be a graduate of a Nevada high school.
5. Must have spent the freshman year at the University of Nevada.
6. Must give promise of future achievement.
7. Must have received no other scholarship.

One half of the scholarship money is payable to the respective winners each semester, provided the winners are duly enrolled in the University of Nevada and are in good scholastic standing. Alternates shall be chosen to receive these scholarships in the event the accepted candidates do not return to school or are declared ineligible by the committee.

30. Premedical–Prenursing Scholarship

Established 1931

This annual scholarship of $100, the gift of an anonymous

donor, is awarded by the University Committee on Scholarships and Prizes and the chairman of the Department of Biology, to the worthiest premedical or prenursing student who has completed the freshman or sophomore year at the University of Nevada.

One half of this scholarship is paid in the fall and the other half in the spring semester.

31. The Nevada State Press Association Scholarship In Journalism

Established 1938

The Nevada State Press Association established this annual scholarship of $100 to assist and encourage worthy and promising Nevada students preparing for the profession of journalism.

It is awarded under the following conditions, as outlined by the executive committee of the Press Association:

The recipient

1. Must be a graduate of a Nevada high school.
2. Must be registered in the course in Journalism or have elected a field of concentration in journalism.
3. Must have revealed talent in this field.
4. Must have shown proficiency and earnestness in the courses in Journalism.
5. Must have attained in all university work the average grade required for graduation.
6. Must have at least one more year of university work to complete, and normally must have been registered as a student at the University for at least two consecutive years prior to the time of the awarding of the scholarship.
7. Must be at least in part self-supporting and in need of financial assistance in order to continue University work.

The recipient of the scholarship is chosen by the chairman of the Department of Journalism, and receives the award from the Committee on Scholarships and Prizes.

If the recipient of the scholarship fails to keep in good standing, except through circumstances beyond his control, or fails to attend the University the following year, he automatically forfeits the scholarship. The award then goes to an alternate chosen under the same conditions.

32. Nevada Rebekah Assembly Scholarships

Established 1939–1940

The Nevada Rebekah Assembly annually gives two scholarships of forty dollars each, one to a son and one to a daughter of a Rebekah, under the following conditions:

1. At the time of application the recipient's father must be an

Odd Fellow and his mother a Rebekah of five years' good standing; or his mother must be a Rebekah of five years' good standing; or his mother, if deceased, must have been in good standing at the time of her death, in a Rebekah lodge under the jurisdiction of the Rebekah Assembly, I. O. O. F., of the State of Nevada.

2. The recipient must have sophomore or junior standing and be registered in the University when the scholarship is awarded.

3. He must have good scholastic standing; be of good character; and, in his relations with fellow students and members of the faculty, be kind, generous, and thoughtful.

4. He must have participated in a reasonable number of extracurricular activities and be, at least in part, self-supporting and in need of financial assistance in order to continue work at the University.

A committee consisting of the three trustees, the secretary, and the treasurer of the Rebekah Assembly of Nevada chooses the recipients of these scholarships each year. This committee may receive recommendations from the University Committee on Scholarships and Prizes, but need not be bound by these recommendations in its selection.

The scholarships are payable to the respective winners, one half in the fall, and the other half in the spring semester.

33. Reno Business and Professional Women's Club Scholarship

Established 1945

An annual scholarship of fifty dollars ($50) shall be awarded by the Committee on Scholarships and Prizes and the Committee on Scholarships of the Reno Business and Professional Women's Club to a woman student with attention to the following requirements:

1. Good moral character.
2. Must be a graduate of a Nevada high school.
3. Must give promise of future achievement.
4. An average grade no less than the average grade of the University.
5. Sophomore or junior standing during the University year the scholarship is held.
6. Must be in need of financial assistance.

One half of this award is paid in the fall and the other one half in the spring semester.

34. The Rhodes Scholarships

Special attention is called to the Rhodes Scholarships tenable at the University of Oxford. Since the majority of Rhodes scholars obtain standing at Oxford which enables them to take

a degree in two years, appointments are made for two years in the first instance, with a possible third year for those whose record at Oxford and plan of study make such an award advisable.

The stipend of a Rhodes Scholarship is fixed at 400 pounds (approximately $1,650) a year plus a special allowance of 100 pounds. A Rhodes scholar should be prepared, if possible, to supplement this amount by at least $250 a year from his own resources.

The annual competition for Rhodes Scholarships has, since 1930, been organized by States and districts, there being eight districts of six States each. Nevada is grouped with California, Utah, Arizona, Colorado, and New Mexico to comprise the southwestern district. Each State Committee of Selection may nominate two candidates to appear before the District Committee which, in turn, may then select not more than four candidates to represent their respective States at Oxford.

Upon recommendation by his college or university, a prospective candidate may apply either in the State in which he resides or in the State in which he has received at least two years of his college education by the time of application.

A candidate to be eligible must: (a) Be a male citizen of the United States, with at least five years' domicile, and unmarried. (b) By the first of October of the year for which he is elected, have passed his nineteenth and not have passed his twenty-fifth birthday. (c) By the time of application have at least junior standing at some recognized degree-granting university or college of the United States.

The qualities which Rhodes specified in his will as forming the basis of selection are: (a) literary and scholastic ability and attainments: (b) qualities of manhood, truth, courage, devotion to duty, sympathy, kindness, unselfishness, and fellowship; (c) exhibition of moral force of character and of instincts to lead and to take an interest in his schoolmates; (d) physical vigor as shown by interest in outdoor sports or in other ways.

Some definite quality of distinction, whether in intellect, character or personality, or in any combination of them, is the most important requirement for a Rhodes Scholarship. Financial need does not constitute a special claim for consideration.

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

1907—Arthur Leonidas St. Clair, Deeth.
1908—William Scott Unsworth, Reno.
1910—Stanley Mayhew Wilton, Goldfield.
1911—Cedric Harding Beebe, Reno.
1913—Floyd Sherman Bryant, Sparks.
1914—Walter Clarence Jepsen, Verdi.

1917—Thomas Henry Edsall, Reno.
1919—Stanley M. Pargellis, Reno.
1921—Charles M. Chatfield, Reno.
1922—Leslie Maltby Bruce, Reno.
1923—Paul A. Harwood, Reno.
1925—John Ocheltree, Reno.
1926—Fred Siebert, Reno.
1928—Fred Anderson, Carson City.
1929—Francis Duborg, Reno.
1932—Alden Sibley, Reno.
1937—Russell W. McDonald, Reno.
1949—Robert Barney Childs, Palo Alto, California.

35. The Rotary Club of Reno Scholarship

Established 1939

Reno Rotary Club No. 248 awards an annual scholarship of $250 early in the second semester to either a man or a woman who has completed at least one semester's work in the University and is again enrolled, who possesses good character and a good scholastic record, is self-supporting in whole or in part, and who, after the grades for the first semester of the academic year are available, has been recommended to the officers of the Rotary Club of Reno by the Chairman of the University Committee on Scholarships and Prizes.

This scholarship is payable to the winner at the office of the Secretary of the Rotary Club of Reno in eight equal monthly installments of $31.25, due on the first business day of the months of February, March, April, May, September, October, November, and December.

36. Sears Roebuck Agricultural Foundation Scholarships

Established 1941

The Sears Roebuck Company, in a nation-wide program for the benefit of the agricultural industry as well as for the individual students, established the Sears Roebuck Agricultural Foundation Scholarships. These scholarships, six in number, are awarded to freshmen students and have an annual value of $125 each.

The winners of this award are selected by the Dean of the College of Agriculture on the basis of worthiness and need of financial assistance. The scholarships are payable at the Comptroller's office, one half in the fall and one half in the spring, provided the winner is then enrolled.

37. The Semenza Scholarship in Business, Economics and Sociology

Established 1946

In honor of her husband, Mr. John L. Semenza, Mrs. John L.

Semenza of Reno established a scholarship of $100 in the Department of Economics, Business and Sociology. This scholarship is awarded on Commencement Day to a student completing the sophomore or junior year in the University by the chairman of the Department of Business, Economics and Sociology and the chairman of the Committee on Scholarships and Prizes with attention to the following requirements:

1. Upright moral character.
2. General scholarship.
3. Outstanding scholastic ability in the department.
4. Evidence of interest in the field.
5. Student's intention to elect a field of concentration in business, economics, or sociology.

One half of this award is paid in the fall and the other half in the spring semester.

38. Raymond Spencer Scholarship

Established 1937

In memory of her husband Raymond Spencer, class of 1912, Mrs. Isabelle Schuler Spencer, also 1912, established an annual scholarship of $250 to be given to a student in the School of Electrical Engineering who has good character, good scholarship, and junior or senior standing at the time of the award, and is self-supporting in whole or in part.

The scholarship, paid in ten equal monthly installments, is annually created from the profits of the Spencer Lumber Company, Walnut Creek, California, as the business will allow.

The student is chosen by a committee of three, consisting of the head of the School of Electrical Engineering, the chairman of the Committee on Scholarships and Prizes, and a third person to be named by these two. The winner must be enrolled in electrical engineering in the University of Nevada during the time the payments are being made; otherwise the payments are made to an alternate, chosen under the same conditions.

39. The Mary Elizabeth Talbot Memorial Scholarship

Established 1944

Ida Mary Hoover, Harry J. Robinson, and Sidney W. Robinson, niece and nephews of Mary Elizabeth Talbot, are the donors of this $300 annual scholarship in mathematics.

The scholarship is awarded by the chairman of the Department of Mathematics and the chairman of the Committee on Scholarships and Prizes with attention to the following requirements:

1. Upright moral character.
2. Outstanding scholastic ability in mathematics for a period of at least one year prior to the award.
3. Students with fields of concentration in mathematics to receive preference.

4. Financial need of student to be a factor of first consideration only when two or more students are otherwise equally qualified to receive the award.

One half of this award is paid in the fall and the other half in the spring semester.

40. The Reuben C. Thompson Scholarship in Philosophy

Established 1948

In recognition of the exceptional services rendered by Doctor Reuben Cyril Thompson to the University of Nevada, its students, and the community in which it is situated over a period of forty years as teacher, adviser, head of the Department of Philosophy and Dean of Men, a scholarship of $100 is established in the Department of Philosophy. This scholarship is awarded on Commencement Day to a student completing the sophomore or junior year in the University by the chairman of the Department of Philosophy and the chairman of the Committee on Scholarships and Prizes, with attention to the following requirements: upright moral character, the student's intention to elect a field of concentration in philosophy, outstanding scholastic ability in this department.

One half of the scholarship will be paid in the fall semester and the other half in the spring semester following the announcement of the award, provided the recipient is then regularly enrolled as a student at the University.

41. University of San Francisco Resident Tuition Scholarship in Law

Established 1935

The University of San Francisco offers to a graduate of the University of Nevada an annual scholarship of one year's free resident tuition in its day law school.

The recipient must be recommended by the President of the University of Nevada, as being, in his judgment, well-qualified scholastically and personally to profit by this scholarship.

42. The Rita Hope Winer Memorial Scholarship

Established 1938

This scholarship, established by gifts from friends of Rita Hope Winer, provides that $50 from the principal and the income shall be awarded to the most deserving woman, who, completing her junior year, is including in her work all the minimum required courses in the School of Education to entitle her to a high school diploma, and who plans to be a public school teacher. The winner is to be chosen by the Dean of Education and the Chairman of the University Committee on Scholarships and Prizes.

Foundations

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 subject. The lectures were initiated in April 1925. The committee chosen by the founder to select the lecturer under this foundation consists of the President of the University, the Deans of the Colleges of Arts and Science, of Agriculture, and of Engineering, and of the School of Education and the Director of the Mackay School of Mines.

Lecturers	*University Year*
Dr. Robert A. Millikin	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
Dr. Robert A. Millikin	1938–1939
Miss Mary A. Dingman	1940–1941
Dr. Will Durant	1945–1946
Mrs. Ruth Bryan Owen Rohde	1946–1947
Mr. John Scott	1947–1948
Dr. Edward Howard Griggs	1948–1949

The S. Frank Hunt Foundation

Established 1935

In memory of Mr. S. Frank Hunt, discoverer and developer of the Rio Tinto mine, the Regents of the University established the Hunt Foundation from successive gifts of cash, mining stocks, automobiles, and equipment that Mr. Hunt gave the University for the Mackay School of Mines.

As Mr. Hunt desired, the foundation provides the opportunity for faculty and students to make trips to operating mines, mills, and mining meetings during the college year, along with week-end trips in connection with school courses. It also provides for the Hunt trip, a free summer course of several weeks to enable a chosen number of students to make a study of mines, prospecting, and geological mapping.

*Suspended for the years 1931–1938 at the desire of the executor of the estate of the donor. Because of readjustment of plan, no lectures were given in 1939–1940 or 1941–1945.

Loan Funds

The Nevada State Federation Scholarship Fund—The Nevada State Federation of Women's Clubs has established a scholarship fund to be lent to students of the University of Nevada in amounts varying to suit individual needs. The money thus lent is to be returned to the fund at the borrower's convenience without interest. Loans are 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. H. A. Paradis, State Chairman of the Committee on Student Loan Fund, 1640 Knox Drive, Reno, Nevada.

The David Russell Loan Fund—By will, David Russell of Loyalton, California, bequeathed, in 1908, the annual income of his residual estate to the University of Nevada after an annual $100 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 lent to students on the basis of 4 percent 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 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. They 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 a reasonable period of time which shall be stated on his agreement, pay or cause to be paid to the Board of Regents a sum equivalent to that received, for the purpose of providing a scholarship in the University for some boy having like qualifications and chosen as above specified.

It shall be understood that seven years after receiving such scholarship shall be considered the maximum period for the carrying out of the agreement entered into, as provided above.

The Charles Haseman Memorial Loan Fund—A student-loan fund to be known as the Charles Haseman Memorial Loan Fund, the principal sum of which is $500, was established in 1940 by Emily Ross of Reno, under the following conditions:

The loans are to be made only to students who have finished calculus and who have attained an average scholastic grade of at least "C" or its equivalent.

No loan shall be made except to one who, in the opinion of the chairman of the Department of Mathematics, needs the loan, and it shall not in any event exceed the sum of $100.

No individual loan for more than $100 shall be made from said fund in any academic year. However, to any needy student a second loan not to exceed this amount may be made during his fourth academic year.

Each student to whom a loan shall be made shall give a personal note, payable on or before the end of four years from date, with interest payable at the rate of one and one-half percent per annum, and each note shall have a co-signer.

The interest and payments which are returned by borrowers shall become a part of this fund and, so far as may be feasible, the unexpended portion of the fund shall be kept invested as are other endowments of the University of Nevada.

Loans under this fund shall be made only on the recommendation of the chairman of the Department of Mathematics of the University of Nevada.

The Marion Lyster Kittle Scholarship Loan Fund—A loan fund for students of the Mackay School of Mines was established in 1944 by Otis A. Kittle, B.S., Mackay School of Mines, 1941, in memory of his wife and as a token of appreciation for the great good and happiness that came to both of them in Nevada.

This loan fund of $1,000 with its accumulations is managed by the University of Nevada, with loans available to junior and senior students majoring in geology, mining, and metallurgy upon the recommendation of the faculty of the School. The rate of interest is not to exceed 4 percent and co-makers are required, preferably with the parent or parents as one co-maker. No faculty member of the University of Nevada is permitted to be a co-maker.

The Goodfellow Loan Fund—William Goodfellow left in his will the sum of $50,000, the income from which is to be used for a student loan fund.

Other Aid to Students

For aid to students other than by scholarships, see *Aid to Students*, in the Index.

A Word to Donors

Many of the functions of the University have been advanced by private benefactions, and some very important activities are due almost entirely to the generosity of groups or of individuals.

The University will be greatly aided in its program of service to Nevada and to the Nation if substantial donations are given to it, either in general endowment or in donations which will be of benefit to the student body as a whole. The administration will gladly give advice as to the manner in which gifts or bequests may be most suitably made.

It is advisable for anyone contemplating a bequest for charitable purposes to ascertain the requirements of the law in the State in which he resides, and to take special pains to comply with such requirements. For tax purposes, gifts to the University including premiums for life insurance made payable to the University are allowable deduction from gross income.

Gifts to the University

(1938–1946)

1938—

Mrs. Ludovica D. Graham of Reno—the Cardinal Rampolla collection of Italian and other marbles.

Major Max C. Fleischmann—approximately $100,000 in Standard Brands stocks (from 1938 to 1941) in the form of scholarships.

1941—

An anonymous donor—$250 to establish the General Endowment Fund.

An anonymous donor—$50 added to the General Endowment Fund.

An anonymous donor—bond of Alexander Pantages Company, p. v. $500, to the General Endowment Fund.

An anonymous donor—an addition of $100 to the General Endowment Fund.

An anonymous donor—two bonds, Mississippi River Power Co., p. v. $100; and Hudson Manhattan Railroad Co., p. v. $500, to the General Endowment Fund.

1942—

Mrs. Luella Rhodes Garvey—approximately $100,000.

Mrs. Jewett W. Adams—approximately $50,000.

Mrs. Alice Dimmett—one-fourth interest in the Clay Peters Building in Reno.

Mrs. Josephine Beam—an unspecified sum, largely in Philippine Islands mining property, the status of which remains in doubt.

Joseph D. Layman—$200 per year, to be used in fulfilling the terms of the Carrie Brooks Layman Scholarships.

1943—

Dr. W. H. Hood estate—general endowment addition.

Senator J. G. Scrugham—*The War of the Rebellion*, official history of the Civil War.

Paul L. Hartman and friends—$226.60 to purchase physics books for the library as a memorial to the late President Leon W. Hartman.

1944—

President John O. Moseley—the libraries of his father and grandfather, John Watkins Moseley, Jr., and John Watkins Moseley, Sr.

Mr. Otis A. Kittle of Reno—$1,000 to establish the "Marion Lyster Kittle Loan Fund" as a memorial to his wife.

1945—

Mrs. C. W. West, wife of the late Dr. C. W. West—Dr. West's medical library consisting of more than 250 volumes, chiefly on surgery.

Mr. E. L. Cord of Esmeralda County, Nevada—valuable Holstein bull for the University Experimental Farm.

Mr. and Mrs. W. H. Edmonds of Reno—their entire personal library, consisting of more than 1,000 volumes, including both fiction and technical books, some more than one hundred years old.

Major Max C. Fleischmann—$10,000 to establish the "New Stock Account" fund for purchasing purebred stock for the University Farms.

Mr. Melvin E. Jepson of Reno—$100 to start an "Appreciation Fund" for a student union building, this amount later increased by him to $500 and supplemented by a promise of monthly donations of $5.

A "Citizen of Nevada"—$150,000 in stocks for the encouragement and development of Agriculture at the University of Nevada.

Mr. and Mrs. Arthur E. Orvis of Reno—$3,000 to establish the "President's Discretionary Fund."

Mrs. Lora J. Knight of Reno—$1,000 toward the salary of an Executive Secretary for the campus Y. W. C. A.

Mr. Stanley L. Gordon of Winnemucca—a rare tooth, found in the Winnemucca mountains, identified as that of a pre-historic animal.

Mr. and Mrs. F. S. Markham of Palm Springs, California—the "O'Brien Mineral Collection," formerly owned by Mr. Joseph O'Brien of Beatty, Nevada, for display, study and research, in the Mackay School of Mines, and $3,000 for housing the collection.

Mr. O. T. Muehlmeyer, owner of the Muehlmeyer Heat Treat-

ment Company of Rockford, Illinois—a small bench gas heat treating furnace to be used in the mechanical shop.

Mr. Donald R. Warren of Los Angeles, California—$5,000 for the making of a topographical map of the campus, to facilitate future campus improvements.

Mrs. Ludovica Graham of Reno—contribution to the furnishing of the Student Center.

1946—

Mr. Jesse Whited, a former resident of Wadsworth—his entire estate, which is in excess of $25,000; interest to go to his wife as long as she lives, and the principal to go to the University of Nevada unrestricted.

An anonymous donor—addition of $2,000 to the President's Discretionary Fund.

The 20th Century-Fox Company—$1,000 to be added to the President's Discretionary Fund as a token of appreciation for the privilege of filming *Margie* on the University campus.

Mr. Marty Hess of Sonoma, California—twenty shares of non-assessable stock in the Callahan Zinc-Lead Company, the proceeds to be used to purchase specimens for the Mackay Museum.

Rev. J. L. Harvey of Carson City—$25 for the President's Discretionary Fund.

Admiral James Fife, L.L.D., University of Nevada, 1946—$250 to be used for cultural purposes; Samuria Sword (Japanese) as a souvenir of World War II, and $100 for the President's Discretionary Fund.

An anonymous donor—$200 for specific purposes in the Department of English.

Mrs. Blanche Preston of Reno—$50 for the purchase of library books in memory of her daughter, Clovis Alberta Preston.

Admiral Joseph Redman L.L.D., University of Nevada, 1946—$300 for the Student Union Building Fund and $100 for a scholarship.

Coach Jim Aiken—$25 for the Student Union Building Fund.

Miss Dorothy Crandall, alumnus and former faculty member—$25 for the Student Union Building Fund.

Mr. Lloyd C. Douglas of Las Vegas—$500 for the Student Union Building Fund.

Reno Lodge of Elks—Furniture for the Student Center.

Mrs. Ethel Lunsford Frost, an alumnus—$100 for the Student Union Building Fund.

Dr. Leo D. Nannini, an alumnus—$25 for the Student Union Building Fund.

Mr. Irvin S. Slomka of Reno—$50 for the Student Union Building Fund, in memory of his mother, Mathilde Slomka.

Mr. Cecil W. Creel of the University of Nevada—$100 for the Student Union Building Fund, in memory of his son, Marshall Creel.

Mrs. B. Shogren of Reno—$100 for the Student Union Building Fund, in memory of her son, George Shogren.

Mrs. Albert E. Hilliard of Reno—$100 for the Student Union Building Fund.

Mr. Frandsen Loomis, an alumnus—$25 for the Student Union Building Fund.

Dr. Herman Marcus of San Francisco, California—$5 for the Student Union Building Fund.

Mrs. Edward C. North of Los Angeles, California—$10 for the Student Union Building Fund.

June and Leon Tachinin, Evelyn and Frank Buell—$1 each for the Student Union Building Fund.

Mr. Arthur Wellesley of Washoe Valley—$100 for the Student Union Building Fund.

Mr. Donald R. Warren of Los Angeles, California—$100 for a student loan fund.

Mr. William E. Goodfellow of Reno—$50,000, which has been invested in government bonds; the interest derived to be used for student loans.

Mr. Raphael Herman of Reno—$50,000 to establish the "Raphael Herman and Norman B. Herman Student Aid Foundation" as a memorial to himself and his brother.

A friend of the University and his wife—a trust fund to be established in the amount of $20,000, the interest on which will be used for scholarships to needy, deserving students in the Mackay School of Mines.

Mrs. Edith W. Albert—an additional $103 to the Henry Albert Fund, the proceeds to be used for additional Senior Public Service prizes.

1947—

Mr. William A. Pappas of Reno—$500 to be applied toward the scholarship fund for the two Greek women students at the University.

Mr. Donald R. Warren of Los Angeles—$500 to be added to the Donald R. Warren Student Loan Fund, which was established by him in 1946.

Mrs. Frank R. Payne of Reno—$750 to the President's Discretionary Fund.

An anonymous local firm—$250 as a contribution to the Student Union Building Fund.

The balance in the Special Welfare Fund ($2,226.04), from the decommissioned U. S. S. Reno—Turned over to the University of Nevada to be set aside for aiding surviving children of men and officers killed in action or who died of wounds received while in action on the U. S. S. Reno.

Mrs. Thelma Mulert, mother of one of our students—$300 to the President's Discretionary Fund, which was used, at her request, to bring Mr. Sydney Montague, noted lecturer and author, to the campus.

Mr. E. L. Cord of Esmeralda County—$500 for purchase and distribution of 1,000 copies of Norton's *The Constitution of the United States; Its Sources and Application.*

Dr. and Mrs. B. H. Caples of Reno—Three boxes of books for the Library—French and Spanish novels and textbooks—which the University will have bound.

Mr. George Johnson of Reno—$200 to the scholarship fund for the two Greek women at the University.

Mr. Peter Demosthenes of Reno—$200 to the scholarship fund for the two Greek women at the University.

Mr. Marty Hess of Sonoma, California—$50 to be used for some needed piece of equipment for the Physics Laboratory; also a set of scales to be added to his gifts for the Mackay Museum.

Mr. F. A. Sitton of Colorado, a friend of Mr. Hess—For the Mackay Museum, specimens of opals, placer gold, and uranium ore.

The Community Chest—Another donation of $1,000 toward the salary of a University Y. W. C. A. secretary.

James Glynn, Student Body President, and his father—About 2,000 valuable books to the University Library.

Admiral James Fife—A check for $150 as a Christmas present to the University, which was credited to the President's Discretionary Fund.

Mr. William Pappas of Reno—$250 toward the scholarship fund for our Greek woman student, Miss Angeline Constantinidou.

Mr. Harry Calury of Reno—$100 toward the scholarship fund of Miss Constantinidou.

The Soroptimist Club of Reno—$25 to the Student Union Building Fund.

Dr. Charles W. McNitt of Reno—$50 for the English Department to use in the purchase of a collection of books.

1948—

The University of California—A seismograph, now installed in the Mackay School of Mines.

Reno Community Chest—$1,000 toward the salary of the Y. W. C. A. Secretary; an additional $1,000 if the Chest reaches its goal.

Donald R. Warren—$100 to the President's Discretionary Fund.

George Johnson—$250 to the Scholarship Fund for Miss Angeline Constantinidou.

A. E., John F., and Mrs. Marion Cahlan—$200 as the first award of the A. W.(Bert) Cahlan Scholarship, to be made this commencement to a senior student outstanding in qualities of leadership and character, and judged to be the best citizen of the University community.

The Kennecott Copper Corporation—$750 as a scholarship to be awarded this year to an outstanding student in the Mackay School of Mines.

Anonymous Donor—$100 for the Reuben C. Thompson Scholarship, established in honor of Professor Thompson; to go to a student of distinguished scholastic ability in Philosophy completing his sophomore or junior year.

Miss Dorothy Crandall of Santa Maria, California, an alumnus—$25, a second donation to the Student Union Building Fund.

Reno Community Chest—$1,000, an additional amount toward the salary of the Y. W. C. A. Secretary on campus.

Twentieth Century Fox Film Corporation—$1,500 to the President's Discretionary Fund, a token of appreciation for the privilege of filming *An Apartment For Peggy* on the University campus.

Mrs. Frank Payne of Reno—$200 to the President's Discretionary Fund.

Donald R. Warren of Los Angeles—$5,000 as a special fund in the name of himself and his wife, the former Lora Belle Lamberson of Yerington, Nevada, for purchasing academic caps and gowns to rent to graduating seniors at a nominal fee.

Gilbert H. Kneiss—His father's collection of minerals to the Mackay School of Mines.

A. C. Florio of Eureka, Nevada—Two excellent Hereford heifers to the University Farms.

Marty Hess of Redwood City, California—Valuable specimen of uranium ore to the Mackay Museum.

Dr. Vincent P. Gianella—$150 to the Student Union Building Fund.

Mrs. Edward North of Los Angeles, California—$5 to the Student Union Building Fund.

Twentieth Century Fox Film Corporation—$1,000 to the President's Discretionary Fund, a token of appreciation for the privilege of filming *Mother Is a Freshman* on the University campus.

American Philosophical Society of Philadelphia, Pennsylvania—$1,000 as a grant for Dr. Church's expenses while preparing his snow survey research material for publication.

Mrs. William D. Hatton of Tonopah—A collection of 405 plants, mounted and preserved, for use of classes in Botany.

Mrs. Louise Lewers of Reno—A photograph of the Academic Procession of May 1913, to the University by Mrs. Lewers, widow of Robert Lewers, Professor and Vice President of the University, 1890–1922.

R. F. I. Raymond of Washoe Valley—Purebred Percheron mare, seven years old, which won her class when shown at the California State Fair.

The College of Arts and Science

Aim

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

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

Admission Requirements

For admission requirements, entrance subjects and the number of credits belonging to each, see *Requirements,* Index.

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, of which at least 40 must be in courses numbered 300 or above. Prescribed courses are to be distributed as follows:[2]

I. From two to six units in military and physical education as required by the University, and political science 301-302 as required by the State law.

II. A minimum of six units in English 101-2[3] shall be required of all students.

III. A minimum of sixteen units[4] in foreign languages as outlined below:

French, German, Italian, Latin, and Spanish. Four entrance units in not more than two languages will meet this requirement.

A single year in a language will not be counted toward meeting the requirements unless one semester of that language be taken in college.

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[1]Students who have majored in mathematics or science may on application to the Dean be granted the degree of Bachelor of Science.

[2]By action of the faculty, requirements for prescribed courses and requirements for a field of concentration (see page 145) were changed in 1949. Students entering the University for the first time in September 1949, or thereafter will follow the rules for graduation outlined in this catalogue. Students entering the University before September 1949, may elect to follow either the rules prescribed in this catalogue or the rules in effect at the time they entered the University.

[3]Subject to provisions stated under *English Language and Literature,* see Index.

[4]The fulfillment of these group requirements by substitution of high school units will, however, not reduce the number of regular college units required for graduation below 126.

With three entrance units the requirements are three college credits in the same language or course 101-102 in another language.

With two entrance units: Course 103-104 in the same language or course 101-102 in another language.

With one entrance unit: Courses 102 and 103-104 in the same language.

With no entrance credit: Courses 101-102 and 103-104 in any one foreign language, or courses 101 and 102 in each of two foreign languages.

IV. A minimum of ten credits each in Groups 1 and 2 and six credits in Group 3 as shown below. To fulfill requirements the student must take courses in at least two subjects of each group.

GROUP 1. *Natural Sciences:* Astronomy, botany, zoology, geology, geography (courses 103 and 109), chemistry, physics, mathematics, meteorology.

GROUP 2. *Social Sciences:* Economics (except courses 356, 361, and 362), geography (except courses 103 and 109), history, political science (except courses 301 and 302), psychology, sociology (except courses 381 and 386).

GROUP 3. *Humanities:* Art history and appreciation, English literature, foreign literature, music history and appreciation, speech history and interpretation, philosophy.

In order that these requirements may be used to the best advantage in assuring a well-balanced course and at the same time give the student some freedom of choice in the selection of his courses, the course of study as given below is prescribed for the first two years. At least five credits per semester must be selected from courses fulfilling the above group requirements and those in language (see III above). Due to the variation in the language requirement it may be necessary for some students to complete as many as eight credits per semester. To be classified as a junior, the student must have completed to within twelve credits of the requirements specified in I-IV above.

Freshman Year

First Semester	*Credits*	*Second Semester*	*Credits*
Military and Physical Education	½ to 1½	Military and Physical Education	½ to 1½
English 101	3	English 102	3
Language, Natural Science, Social Science, Humanities	5 to 8*	Language, Natural Science, Social Science, Humanities	5 to 8*
Electives	3 to 7	Electives	3 to 7
	15½		15½

Sophomore Year

First Semester	*Credits*	*Second Semester*	*Credits*
Military and Physical Education	½ to 1½	Military and Physical Education	½ to 1½
Language, Natural Science, Social Science, Humanities	5 to 8*	Language, Natural Science, Social Science, Humanities	5 to 8*
Electives	3 to 7	Electives	3 to 7
	15½		15½

*These credits may not include courses in groups in which the requirements have already been fulfilled.

Courses open to freshmen which may be used to fulfill the above requirements in natural sciences, social sciences, and humanities are listed below:

GROUP 1—Natural Sciences and Mathematics—
- Botany 103
- Chemistry 101-102, 122, 124
- Geography 103, 109
- Geology 101, 102
- Mathematics 101, 102, 110
- Physics 101-102, 107, 117-118, 151-152, 153-154
- Zoology 101, 103

GROUP 2—Social Sciences—
- Economics 107, 110
- Geography 101
- History 101-102, 105-106

Social Sciences—*Continued*
- Potilical Science 101-102, 105-106
- Psychology 121, 201
- Sociology 102

GROUP 3—Humanities—
- Art 115, 261
- English (including speech) 131-132, 135, 141, 145, 171-172, 221-222, 231-232, 247-248, 253-254, 261, 268, 291.
- German 109-110
- Music 203, 204
- Philosophy 101, 102, 107, 108

Courses requiring a prerequisite or sophomore or upper-division standing which may be used to fulfill requirements in natural sciences, social sciences, and humanities.

GROUP 1—Natural Sciences and Mathematics—
- Botany courses numbered above 200.
- Chemistry courses numbered above 200.
- Mathematics 140, 151-152, and courses numbered above 200.
- Physics courses numbered above 200.
- Zoology courses numbered above 200.

GROUP 2—Social Sciences—
- Economics 201-202, 218, and courses numbered above 300 except 356, 361, and 362.
- History courses numbered above 300.
- Political Science courses numbered above 300 except 301-302.
- Psychology courses numbered above 200.
- Sociology 201 and courses numbered above 300 except 381 and 386.

GROUP 3—Humanities—
- Art 359-360, 362.
- English (including speech) courses numbered above 300 except 305-306, 311-312, 315-316, 317-318, 327-328, 385, 405-406, 413, 419-420, 421-422.
- French courses numbered above 300 except 355-356, 373-374, 389-390.
- German courses numbered above 300 except 355-356, 359-360, 379-380.
- Italian courses numbered above 300 except 355-356.

Latin courses numbered above 300.
Music 303, 304.
Philosophy courses numbered above 300.
Portuguese courses numbered above 300 except 361-362.
Spanish courses numbered above 300 except 355-356, 379-380.

Students who, upon their initial registration in the University, are over 26 years of age are excused from physical education and military.

No course with a number above 300 will be open to freshmen or sophomores without the written recommendation of the chairman of the department and the approval of the Dean.

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.

Except as otherwise specified, all students, including transfers, before receiving the bachelor's degree from the College of Arts and Science must have fulfilled the above requirements.

Junior and Senior Requirements

To accomplish the aims of the College, a candidate for the baccalaureate degree must select courses totaling not less than forty credits in courses numbered above 300. He must complete the requirements listed under I-IV (pp. 142, 143). And he must complete requirements for a field of concentration[2] of 50 credits in a program representing a unity of aim. The particular grouping of courses will depend on the particular aim of the student but must be in accord with either Plan I or Plan II as outlined below.

Plan I. The major interest of the student is confined to a single subject. The 50 credits shall include not less than 26 nor more than 36 credits in the major interest subject, the remainder

[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 hours required for graduation from arts and science and agriculture, respectively, for each semester they have been enrolled in engineering.

[2]By action of the faculty, requirements for prescribed courses (see pp. 142, 143) and for a field of concentration were changed in 1949. Students entering the University for the first time in September 1949, or thereafter, will follow the rules for graduation outlined in this catalogue. Students entering the University before September 1949 may elect to follow either the rules prescribed in this catalogue or the rules in effect at the time they entered the University.

being chosen from related subjects as outlined under Courses of Instruction (p. 142), and approved by the Chairman of the major interest department.

Plan II. The major interest of the student involves two or more subjects. The 50 credits shall represent a specified objective and form a unified program acceptable to the departments involved (see p. 142).

Specific requirements for various fields of concentration are described in this catalogue at the beginning of each department's list of Courses of Instruction.

It is advisable that students should plan their work for their junior and senior years as early as the sophomore year, in order that the studies then elected may fit in with their work later. At the beginning of the junior year, each student must give the Dean a written notice of his selection of a field of concentration; such selection shall bear the approval of the chairman of the department sponsoring the field of concentration.

The remaining units necessary to make a total of 126 may be freely elected from any department, or, subject to the limit of twenty, from the other colleges of the University.

Requirements for the Degree of Bachelor of Science in Chemistry or in Chemical Technology

The following courses of study are designed for students looking toward the field of chemistry or of chemical engineering as a profession. They are intended to fit students to enter directly into industrial work or to prepare them for more advanced study in chemistry or in chemical engineering.

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 chairman of the department, and should be chosen in consultation with him.

Freshman Year

First Semester	Credits Chem.[1]	Credits Chem. Tech.[2]	*Second Semester*	Credits Chem.[1]	Credits Chem. Tech.[2]
Chemistry 101	4	4	Chemistry 102, 122	5	5
English 101	3	3	English 102[3]	3	3
Mathematics 151	5	5	Mathematics 152	5	5
Military 101	1	1	Military 102	1	1
Mechanical Arts 203	..	2	M. E. 105	..	2
Social Science	3	..	Social Science	2	..
Art 107	..	1			
	16	16		16	16

[1]Refers to requirements for Bachelor of Science in Chemistry.
[2]Refers to requirements for Bachelor of Science in Chemical Technology.
[3]Subject to provisions stated under *English Language and Literature*, see Index.

Sophomore Year

First Semester	*Credits*		*Second Semester*	*Credits*	
Chemistry 231	3	3	Chemistry 232	3	3
Mathematics 231	3	3	Mathematics 232	3	3
Physics 203	4	4	Physics 204	4	4
Physics 205	1	1	Physics 206	1	1
Economics 201 or Business Adm. 241	3	..	Economics 202 or Psychology 201	3	..
Business Adm. 241	..	3	Psychology 201	..	3
Military 201	1	1	Military 202	1	1
Electives	1	..	Electives	1	1
	16	15		16	16

Junior Year

First Semester	*Credits*		*Second Semester*	*Credits*	
Chemistry 341	4	4	Chemistry 342	4	4
German 101	5	5	German 102	5	5
Chemistry 333	3	..	Chemistry 312	3	3
Chemistry 487	½	..	Chemistry 488	½	..
Mathematics 341	..	3	Business Adm. 366	..	3
E. E. 232	..	2	Chemistry 362	..	2
Electives	3½	2	Electives	3½	..
	16	16		16	17

Senior Year

First Semester	*Credits*		*Second Semester*	*Credits*	
Chemistry 451	4	4	Chemistry 452	4	4
German 109	3	3	German 110	3	3
Chemistry 487	½	½	Chemistry 488	½	½
Political Science 301	1	1	Political Science 302	1	1
Chemistry 497	2	..	Chemistry 498	2	..
Chemistry 461	..	3	M. E. 464	..	3
M. E. 353	..	3	C. E. 372	..	3
Chemistry 415	3	..	Chemistry 482	2	..
Elective	2½	1½	Elective	3½	1½
	16	16		16	16

In addition to the above courses of study, students will be required to fulfill the regular University requirements in physical education.

The Course in Journalism

In its four-year professional Course in Journalism, the University of Nevada offers approved preparation for the journalistic vocations leading to the degree Bachelor of Arts in Journalism.

Based on the principle that a well-rounded education coupled with training in journalism is the best foundation for the profession, the Course in Journalism provides study in language, literature, the natural sciences, the social sciences, and the humanities, as well as in journalism.

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

Thirty-six credit hours in Journalism including Journalism 101–102 (6 credits), 221–222 (6 credits), 351–352 (4 credits), 353 (3 credits), 367 (3 credits), 372 (2 credits), 379 (2 or 3 credits), 481–482 (4 credits), and five or six additional credits chosen with the counsel of the department chairman from among Journalism courses numbered 300 and above.

Nine to twelve credit hours in English literature.

Twenty-five credit hours in the social sciences, (history, political science, economics, sociology, psychology, and geography—except courses 103 and 109), selected so that they represent at least four of these subjects.

Six credit hours in the humanities.

The general requirements of the College of Arts and Science.

Subjects required of all candidates for graduation from the University of Nevada.

To complete a field of concentration in journalism or the Course in Journalism, a student must earn an average of *at least* two grade points in his courses in journalism.

University credits acquired in meeting the arts and science requirements in the social sciences and the humanities may be counted toward the requirements in the social sciences, English literature, and the aesthetics in the Course in Journalism.

In choosing subjects to meet these requirements of the Course in Journalism, the student will be guided by the chairman of the journalism department.

In each group, the following courses will be found to best furnish the student with a comprehensive background. Those starred are especially valuable:

Journalism—231*–232*, 354*, 356*–357*, 361*–362*, 365–366, 368, 375, 386, 393–394.

English Literature—131*–132*, 141*, 145*, 267*, 337*, 345–346, 347*–348*, 355–356, 441*–442*, 465*–466*, 471–472, 481, 482, 485–486.

Social Science—Business 243–244, 247, 368*, 371*–372*, Economics 107*, 110*, 201*, 202*, 218, 351, 364*, Geography 101*, 103*, 109*, 455*, History 101*–102*, 105*–106*, 393*–394*, 405*, 408*, 421*–422*, 441*–442*, 451*–452*, Library Science 335, Philosophy 101*, 351, 352, 353*–354*, 461, 482, Political Science 101*–102*, 105*–106*, 416*, 427, 431*–432*, Psychology 201*, 231*, 361*, 363, 371*, 375, 381*, 441*, Sociology 102*, 201*, 350, 370*, 371*, 379*, 380*, 381, 383.

The Humanities—Art 101–102, 105, 355*, English 221–222, 321–322,421–422, Music 203, 204, 303, 304, Philosophy 455.

Specific journalism courses required for the completion of the Course in Journalism or a field of concentration in journalism (prescribed under *Journalism* in *Courses of Instruction* in this catalogue) are designed to give each student a sound foundation in the principles and the skills basic to *all* fields in journalism.

In his electives in journalism, and in the various other offerings of the university, each student will wish to stress the subjects which will be most useful to him in the *special* field of journalism to which he is looking forward.

Students interested chiefly in the *news and editorial phases of newspaper and press association work* will wish to elect, in addition to the required journalism courses, Journalism 354, 368, 375, and 365.

Students interested chiefly in *community newspaper work* will wish to elect, in addition to the required courses, Journalism 354, 356–357, 365–366, 368, and 375. Certain courses in business also may well be elected.

Students interested primarily in *radio journalism* will wish to elect, in addition to the required courses in journalism, Journalism 354, 356–357, 368, and 386. Several courses in public speaking are advised.

Students preparing for a *career in advertising* will wish, in addition to the required journalism courses, to elect Journalism 356–357, 365–366, 368, and 386.

Through a suitable combination of courses, in addition to those required in journalism, a student may organize his studies in preparation for the teaching of journalism in high school, for magazine article free lancing, for publicity and public relations work, or for publications management.

A number of courses in journalism are open to students specializing in other subjects. Some are designed for non-journalists, while others are arranged both for professionals and nonprofessionals.

Prelegal Course

Students who intend to study law will find it necessary to satisfy University requirements for the Bachelor's degree.

In the opinions of 118 eminent members of the legal profession, including the Chief Justice of the United States, the following subjects lead in probable usefulness to the student who anticipates entering a law school; subjects are here listed alphabetically and not always in order of importance: Economics, English, History, Latin, Mathematics, Philosophy, Physics, Political Science, Psychology and Sociology. It appears that descriptive rather than theoretical courses in Economics and Political Science are preferred. "A few subjects such as Commercial Law, Constitutional Law, Roman Law and Jurisprudence may be excluded on the ground that they are technical legal studies that may be much better pursued in law school."

Professors Hicks, Hume, and Inwood are designated advisers of prelegal students.

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. 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.

Recommended Premedical Course and Predental Courses

To permit the inclusion of all the essential premedical subjects and to satisfy the University requirements for the B.A. or B.S. degree, the following arrangement of the course of study has proved a desirable one:

Freshman Year

First Semester	*Credits*	*Second Semester*	*Credits*
English 101	3	English 102	3
Chemistry 101	4	Chemistry 101-122	5
Botany 103	3	Zoology 103	4
Military and Physical Education	½–1½	Mathematics 102	2
Mathematics 110	3	Military and Physical Education	½–1½
Electives	--	Electives	--
	15½		15½

As electives the student should choose either the continuance of French or German if he has some entrance credits in these languages or he may elect a social science, preferably psychology in the second semester.

Sophomore Year

First Semester	*Credits*	*Second Semester*	*Credits*
German 101	5	German 102	5
Chemistry 231	3	Chemistry 232	3
Zoology 209	5	Military and Physical Education	1½
Military and Physical Education	1½	Electives	..
Electives	..		
	15½		15½

Junior Year

First Semester	*Credits*	*Second Semester*	*Credits*
German 109	3	German 110	3
General Physics	4	General Physics	4
Chemistry 341	4	Chemistry 342	4
Political Science 301	1	Zoology 364	4
Electives	4	Political Science 302	1
	16		16

Senior Year

Elective or approved credential from professional school.

The University will confer the degree of Bachelor of Arts or Bachelor of Science 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.

Predental students are advised to take the above premedical course with possible minor modifications. Such students may then become eligible for the degree of Bachelor of Arts or Bachelor of Science from this University following a comparable procedure to that outlined for medical students above.

For further advice relative to premedical work, the student is referred to the premedical adviser, Professor Lowrance.

Premedical Technologist Course

Medical Technologist or Clinical Laboratory Technician training is available at many hospital laboratories of the country. The following three-year curriculum includes the uniformity required and strongly advised courses for admission to such training schools, as well as certain electives and courses required for graduation. Electives must satisfy graduation requirements of the College of Arts and Science.

Freshman Year

First Semester	*Credits*	*Second Semester*	*Credits*
English 101	3	English 102	3
Chemistry 101	4	Chemistry 102-122	5
Botany 103	3	Zoology 103	4
Physical Education 101	1	Mathematics	2
Elective	4½	Physical Education 102	1
		Elective	½
	15½		15½

Sophomore Year

First Semester	*Credits*	*Second Semester*	*Credits*
Chemistry 231	3	Chemistry 242	3
Zoology 211	4	Zoology 322*	2
Psychology 201	3	Botany 370	3
Physical Education 201	½	Sociology 102	3
Elective	5	Physical Education 201	½
		Elective	4
	15½		15½

Junior Year

First Semester	*Credits*	*Second Semester*	*Credits*
Bacteriology 351	4	Zoology 368*	2
Physics 151	4	Physics 152	4
Political Science 301	1	Zoology 346	5
Elective (300 or above)	7	Political Science 302	1
		Elective (300 or above)	4
	16		16

*Recommended, but not required.

A student completing the three-year premedical technologist course may be granted a Bachelor of Arts or a Bachelor of Science degree from the University of Nevada when he or she has, in addition, completed the twelve to eighteen months' technologist training course, has received a certificate or diploma from the laboratory where the training was taken, and has passed the national registry examination of the American Society of Clinical Pathologists. A testimonial similar to that described under the premedical course may be presented from the director of the medical technology school. The only type of laboratory training acceptable will be that obtained from a medical technology school approved by the Council of Medical Education and Hospitals of the American Medical Association. The laboratories of Dr. Lawrence Parsons at St. Mary's Hospital in Reno have been approved (December 1945) by the Council of Medical Education and Hospitals of the American Medical Association for the training of clinical laboratory technicians.

Recommended Three-Year Prenursing Course

Freshman Year

First Semester	*Credits*	*Second Semester*	*Credits*
Botany 103	3	Zoology 103	4
English 101	3	English 102	3
Chemistry 101	4	Chemistry 101-242	6
History 101	3	Physical Education 102	1
Physical Education 101	1	Elective	1½
Elective	1½		
	15½		15½

Sophomore Year

First Semester	*Credits*	*Second Semester*	*Credits*
Zoology 211	4	Foreign Language	5
Foreign Language	5	Sociology 102	3
Sociology 201	3	Physical Education 202	½
Psychology 201	3	Elective	7
Physical Education 201	½		
	15½		15½

Junior Year

First Semester	*Credits*	*Second Semester*	*Credits*
Bacteriology 351	4	Zoology 346	5
English or Foreign Language	3	Home Economics	3
Elective (Courses 300 or above)	8	English or Foreign Language	3
Political Science 301	1	Elective (Courses 300 or above)	6
		Political Science 302	1
	16		16

A student completing the three-year prenursing course may be granted a Bachelor of Arts or a Bachelor of Science degree from the University of Nevada when she has, in addition, completed 32 units of acceptable academic work in a recognized school of nursing.

Wildlife Management Course

The four-year course outlined below aims to give both a liberal education and a foundation for work in the fields of State Fish and Game Management, the Federal Fish and Wildlife Service, and other Federal branches such as the National Parks Service and the Geological Survey which do biological work. Graduate study may be necessary to qualify for certain positions. Electives are to be chosen to satisfy the Arts and Science requirements for the Bachelor's Degree. This course will satisfy the requirements for a field of concentration in zoology.

Freshman Year

		1st Sem.	2d Sem.
Chemistry 101, 102	General Inorganic Chemistry	4	2
English 101-102	Composition and Rhetoric	3	3
Botany 103	General Botany	3	..
Zoology 103	General Zoology	..	4
Mathematics 101 or 110	Algebra and Trigonometry	2	3
Military and Physical Education		1½	1½
Electives		2	2
		15½	15½

Sophomore Year

		1st Sem.	2d Sem.
Foreign Language	First Year	5	5
Zoology 209	Comparative Anatomy	5	..
Botany 222	Taxonomy	..	4
Chemistry 242	Introductory Organic	..	4
Military and Physical Education		1½	1½
Electives		4	7
		15½	15½

Junior Year

		1st Sem.	2d Sem.
Zoology 359	General Entomology	3	..
Zoology 337	Mammals	..	3
Botany 317	Agrostology	..	3
Botany 491	Special problems in seed identification	2	..
Botany 492	Special problems in wildlife food plants	..	2
Geology 101	Physical geology	3	..
Political Science 301-302	Constitutions of the U. S. and Nevada	1	1
Zoology 333	Fish and Reptiles	..	3
Electives		7	4
		16	16

Senior Year

		1st Sem.	2d Sem.
Zoology 335	Birds	..	3
Zoology 463	Game management	3	..
Zoology 491	Special problems in bird farm management	2	..
Zoology 492	Special problems in fish culture	..	2
Zoology 350	Genetics	..	2
Botany 475-476	Ecology	4	4
Electives		7	5
		16	16

Suggested electives are: Animal Husbandry 358; Botany 355; Economics 201, 202; English 111, 112, 131, 132; Psychology 201.

Recommended Course for Social Workers

Students who plan to engage in social work will find it advantageous to pursue an undergraduate course designed for this particular purpose. Some branches of the services provided for under the terms of the Social Security Act requires that workers shall have had training in a recognized school of social work; others do not. This makes it desirable that the undergraduate work be planned to meet the entrance requirements of schools of social work. The field of concentration in sociology (see p. 143) is organized for this purpose. Electives should include Political Science 418, 431, and 432; Psychology 241 and 441, and English 111 and 112.

M. J. Webster has been named as adviser for students wishing to prepare for social work.

Course of Study Leading to the Degree—Bachelor of Science in Business Administration

Freshman Year

First Semester	*Credits*	*Second Semester*	*Credits*
Economics 107	2	English 102	3
English 101	3	Foreign Language	5
Foreign Language	5	Mathematics or Science	3–5
Mathematics or Science	4–5	Military and Physical Educ.	½–1½
Military and Physical Educ.	½–1½	Electives	--
	15½		15½

Sophomore Year

First Semester	*Credits*	*Second Semester*	*Credits*
Economics 201	3	Economics 202	3
Business Administration 241	3	Business Administration 244	3
Business Administration 243	3	Foreign Language	3
Foreign Language	3	Mathematics or Science	5–6
Mathematics or Science	2–3	Military and Physical Educ.	½–1½
Military and Physical Educ.	½–1½		
	15½		15½

Junior Year

First Semester	*Credits*	*Second Semester*	*Credits*
Business Administration 355	3	Business Administration 356	3
Economics 361	3	Business Administration 368	3
Mathematics or Science	3	Political Science 302	1
Political Science 301	1	Electives	9
Electives	6		
	16		16

Senior Year

First Semester	*Credits*	*Second Semester*	*Credits*
Economics 373	3	Business Administration 374	3
Business Administration 365	3	Electives	13
Business Administration 247	3		
Electives	7		
	16		16

Electives shall include a minimum of nine credits in courses numbered above 300, six of which shall be in business administration and three of which shall be in economics.

This selection should accord with the individual needs of the student. For students who expect to enter a business career, courses in mathematics or psychology are recommended; for those expecting to teach commercial subjects courses in education are recommended; these latter students should elect Business Administration 351 and Business Administration 353 to be eligible for certification.

It is strongly advised that electives include Mathematics 210 and Psychology 201, 381, 382, 391. Electives must be so chosen as to satisfy the requirements of the College of Arts and Science.

SCHOOL OF EDUCATION

Aim

The School of Education aims principally to provide for undergraduate students, on the foundation of the broad and liberal education furnished them by the College of Arts and Science, a professional course of studies to equip them for successful teaching in the public schools of the State. To a limited extent it seeks also to offer advanced training for teachers in service who desire either to increase their efficiency in their present positions or to prepare for new and larger positions of responsibility.

For the welfare of the State it aims to provide well-trained teachers for the schools and to stimulate in the teaching personnel and the public a deeper interest in the promotion of good teaching practices and sound educational policies.

Types of Training Provided

1. Elementary School Teaching. Because the teaching positions in Nevada are predominantly in the elementary schools, the most urgent responsibility of the School of Education is the preparation of teachers for rural and town elementary schools. It meets this responsibility by offering a broad training in the principles of elementary education and in teaching methods that equip the student for either the diverse tasks of the one-room school or the more specialized work of a single-grade room. Supervised teaching which constitutes the heart of all the teacher-training work is possible in the primary, intermediate, or junior high school grades.

2. High School Teaching. For students who desire to qualify for high school teaching, the School of Education provides in the junior and senior years courses in the principles and methods of secondary education and in supervised teaching in the important academic subjects in the high school. Such students must also present a major and a minor in high school subjects.

3. Advanced Professional Training. Advanced courses are offered in the evening and during Summer Sessions for the benefit of teachers in service who desire to renew certificates, to qualify for a higher grade of certificate, or to work for a Master of Arts degree.

Applicants for the Master's degree proposing to submit Education as a major or a minor should confer with the Dean of the School of Education before enrolling for graduate credit in any course. Failure to do so may mean enrollment in a course not approved for the Master's degree.

History and Organization

Training of teachers as a function of the University is almost as old as the University itself. In the first year of the University's life at Reno there were no courses for teachers, but before the year was over the Legislature passed an Act, approved February 7, 1887, providing for the establishment in the University of "a school for the instruction of teachers," and specifying that those worthily completing the course or a prescribed part of it should be granted teachers' certificates by the State Board of Education. In accordance with this Act the University established a normal course with the opening of the fall term in 1887.

The policy inaugurated by the Act of 1887 of granting certificates on the completion of the courses set up by the University has been consistently followed to the present time. There are now two distinct courses in operation, one for high school teachers and one for elementary teachers.

Courses for High School Teachers' Certificates

It is possible to qualify for the high school teachers' certificate by either of two methods:

I. The University High School Teachers' Diploma

Students who meet the requirements for this diploma will be granted by the State Board of Education a certificate to teach in the high school any subject approved by the local school board, except the vocational subjects subsidized by the State and National government. For these vocational subjects special certificates are required as indicated below.

To qualify for the University High School Teachers' Diploma, the student must meet the requirements for the B.A. or the B.S. degree and must complete 18 hours of professional work in education. See fields of concentration outlined under *Education* in the *Courses of Instruction* in this catalogue.

Vocational Certificates. Students who have taken the required courses in agriculture or home economics and receive their degrees in those subjects may qualify for both the University High School Teachers' Diploma and for a vocational certificate.

For the home economics certificate the students are required to take the following courses: Psychology 221, Education 190, 310, six hours of 420, 448, 449, and 482.

For the agriculture certificate the students are required to take the following courses: Psychology 221, Education 190, 310, six hours of 420, 445, 446, 447, and 482.

II. State Board Requirements

Under the regulations of the State Board of Education a high school certificate may be granted to any applicant who holds a

B.A. or a B.S. degree from the University, and who has completed 18 semester hours in the field of professional education, including four semester hours of practice teaching. The majority of the hours in professional training must be in the secondary field. Courses in the secondary field include Psychology 221 and most courses listed under *Secondary Education* in the *Courses of Instruction* in this catalogue.

Courses for Elementary Teachers' Certificate

The most satisfactory course for elementary teaching will require four years and entitle the student to a bachelor's degree. Students entering the University with definite intent to remain four years and to take up teaching upon graduation should recognize that the opportunities in teaching are much more numerous in the elementary than in the secondary field. They should plan, therefore, from the first to follow a curriculum through the four years that will thoroughly equip them for an elementary position. Early consultation with the Dean of the School of Education is urgently recommended to such students.

There are three types of elementary teachers' certificates issued.

I. Based on Four Years of Study

A first grade elementary certificate valid for three years is issued to graduates of the University if they have completed 18 hours of professional courses in education. These 18 hours must include four hours of methods of teaching the elementary school subjects, four hours of practice teaching in the elementary school, and a course in school law.

Students who elect the field of concentration in elementary education will be entitled to this certificate.

II. Based on Two Years of Study: The Normal School Diploma

A first grade elementary certificate valid for five years is issued to students who qualify for the normal school diploma. This diploma is granted by the University of Nevada to students who have earned 62 hours of credit in the College of Arts and Science, of which 30 must be professional courses in Education. Usually these professional courses should include Education 111, 134, 186, 190, 120, and 121.

For students entering the University with the expectation of qualifying for the normal school diploma in two years, the following program is suggested:

Freshman Year

First Semester	*Credits*	*Second Semester*	*Credits*
Education 111	2	Education 134	3
English 101	3	English 102	3
Physical Education (Women)	1	Physical Education (Women)	1
Physical Education (Men)	½	Physical Education (Men)	½
Military (Men)	1	Military (Men)	1
Education Electives	5–6	Education Electives	5–6
Other electives	--	Other electives	--
	16		16

Sophomore Year

First Semester	*Credits*	*Second Semester*	*Credits*
Practice teaching	5	Practice Teaching	5
Education 190	2	Education 186	2
Physical Education	½	Physical Education	½
Military (Men)	1	Military (Men)	1
Political Science 301	1	Political Science 302	1
Education Electives	1–2	Education Electives	1–2
Other electives	--	Other electives	--
	16		16

III. Based on One Year of Study

A second grade certificate, valid for three years but not renewable, is issued to students who have earned 31 hours of credit at the University of Nevada, of which 15 hours must be professional courses in education. Students planning to qualify for this certificate will take the courses specified in the first year of the courses for the Normal School Diploma, as above, but must take also Education 190 and Political Science 301-302.

The Kindergarten-Primary Certificate

Students may qualify for this certificate by fulfilling requirements for the field of concentration in kindergarten-primary education outlined under *Education* in the *Courses of Instruction* in this catalogue. Graduates from this course will also be entitled to a first-grade elementary certificate.

Supervised Teaching

All supervised teaching facilities are provided in the public schools of Reno and Sparks through the courtesy of the school authorities in these two cities. By this arrangement students meet typical school problems and secure training for teaching under the most favorable conditions. In every instance the student is assigned to one of the regular teachers in the school system, designated as a cooperating teacher, who assigns to the student the material for teaching, checks his lesson plans, observes his teaching, and gives suggestions for improvement.

Each staff member of the Department of Education is likewise responsible for the supervision of a group of student teachers, making regular visits to observe the student's teaching, and holding conferences with the student and his cooperating teacher concerning the teaching. There is always a close cooperation between the department and the cooperating teacher.

COOPERATING TEACHERS

For Secondary Certificate:

Rose Arenaz, B.A., History.
Bud Beasley, B.A., Physical Education.
Raymond W. Cable, B.A., History.
E'lois Campbell, B.A., Mathematics.
Kathleen Griffin, B.A., Commercial.
Helen Halley, B.A., Mathematics.
Frances Humphrey, B.A., English.
Hattie Mae Kilpatric, B.A., Commercial.
Mildred Klaus, B.A., Commercial.
Florence Lehners, B.A., English.
Andrew Rosaschi, B.A., History.
Frances Sandelius, B.A., English.
Beulah Singleton, B.A., History.
Maud Stern, B.A., Commercial.

For Elementary Certificates:

Harriet Abelman, Kindergarten.
Marilyn Amodei, seventh grade.
Joseph Bashista, seventh grade.
Esther Bennett, first grade.
Angelina Birks, fourth grade.
Martha Bond, seventh grade.
Barbara Broomhall, fifth grade.
Lucille Byrd, sixth grade.
Browning Churn, eighth grade.
Kathryn Clark, fourth grade.
Rae Clark, sixth grade.
Marjorie Cramer, third grade.
Cecelia Daley, third grade.
Angela DeNevi, fifth grade.
Alene DeRuff, seventh grade.
Eileen Dillon, kindergarten.
Helen Dunn, seventh grade.
Juanita Elcano, second grade.
Ruth Gardner, fifth grade.
Inez Gillies, fifth grade.
Helen Hanley, fourth grade.
Mamie Hildebrand, fourth grade.
Buster L. King, physical education.
Melva Lauritzen, fourth grade.
Hilma Lyons, first grade.
Theresa McDonagh, fifth grade.
Isabelle Moe, fifth grade.
Marguerite Nelson, fifth grade.
Dorothea Nightingale, third grade.
Doris Nord, eighth grade.

Clare O'Sullivan, eighth grade.
Virginia Palmer, fourth grade.
Margaret Patrick, fifth grade.
Edith Peddicord, fifth grade.
Dorris Reed, fifth grade.
Yvonne Rosasco, seventh grade.
Lyle Roush, seventh grade.
Alyce Savage, fifth grade.
Gene Scarselli, eighth grade.
Doris Shaver, sixth grade.
Emma Smith, fourth grade.
Lucille Smith, first grade.
Marilyn Thurston, second grade.
Olivia Treanor, sixth grade.
Edward W. Van Gorder, physical education.
Betty Vaughan, first grade.
Vaol J. Ward, eighth grade.
Vera Warren, eighth grade.
Emilie Yparraguire, fourth grade.

Prerequisites for Supervised Teaching

To protect the interests of the public school children, great care is exercised in according the privileges of supervised teaching to students. Only those students who have shown by their previous record a satisfactory ability in scholarship, dependability and earnestness, and a real interest in the problems of education, are accepted for teaching. Any failure on the part of the student teacher to meet any requirement imposed may result in the immediate forfeiture of his teaching privilege. No person can be granted an opportunity for practice teaching until he has spent at least one semester in courses in the School of Education.

The Teacher Appointment Service

For the purpose of bringing school authorities who are looking for competent teachers into touch with promising candidates, the School of Education has maintained a teacher appointment service since 1923.

Only those candidates are accepted for enrollment with the appointment service whose ability and character are well known to the Department of Education. For those enrolled the appointment office secures all data possible, both personal and academic, and recommendations from persons in official positions competent to speak of the character or teaching ability of the candidate. This material is kept on file, and on request is sent to interested school authorities.

The only fees charged for the service rendered will be paid by the candidates at the time of enrollment to cover the necessary costs of postage, printing, and stenographic help. For the first set of five papers prepared a charge of $2.50, and for each succeeding set a charge of $1.50 will be made.

The College of Engineering

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

AIM

The aim of the College of Engineering is to give young men a knowledge of those subjects which form the bases 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 the general description of the equipment of the College of Engineering, see Mackay School of Mines, Mechanical Building, Electrical Building, New Engineering Building, Mackay Science Hall, 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

An applicant who is deficient in more than two of the required entrance units will not be permitted to enter the Engineering College.

For admission requirements, entrance subjects, and the number of credits belonging to each, see *Requirements for Admission*, Index.

REQUIREMENTS FOR A BACCALAUREATE DEGREE IN ENGINEERING

The degree of Bachelor of Science in (a) Mining Engineering, (b) Metallurgical Engineering, (c) Geological Engineering, (d)

Mechanical Engineering, (e) Electrical Engineering, and (f) 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 in each case.

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.

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.

College of Engineering

Mackay School of Mines

General Mining Course

Freshman Year—First Semester		LAB.	LEC.
English 101	Composition and Rhetoric	--	3
Chemistry 101	General Inorganic Chemistry	2	2
Mathematics 151	Mathematical Analysis	--	5
Mechanical Eng. 105	Engineering Drawing and Descriptive Geometry	2	--
*Art 101	Freehand Drawing	1	--
Mining 101	Introductory Mining	--	1
Military 101	Basic Course	1	--
Physical Education 101	Developmental Exercises	½	--
			17½

Freshman Year—Second Semester			
English 102	Composition and Rhetoric	--	3
Chemistry 102	Metals	--	2
Chemistry 124	Qualitative	1	1
Mathematics 152	Mathematical Analysis	--	5
M. E. 106	Engineering Drawing and Descriptive Geometry	2	--
Geology 110	Engineering Geology	--	3
Military 102	Basic Course	1	--
Physical Education 102	Developmental Exercises	½	--
			18½

Summer Work		
Mining A	Practical Mine Work	Four Weeks

*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.

Sophomore Year—First Semester		LAB.	LEC.
Mathematics 241	Differential Calculus	..	3
Physics 203	Engineering Physics	..	4
Geology 211	Determinative Mineralogy	2	..
Chemistry 231	Quantitative Chemistry	2	1
Geology 102	Historical Geology	..	3
Military 201	Basic Course	..	1
Physical Education 201	Advanced Exercises	½	..
			16½

Sophomore Year—Second Semester			
Mathematics 242	Integral Calculus	..	3
Physics 204	General Physics for Engineers	..	4
Metallurgy 204	Engineering Metallurgy	..	2
Geology 212	Blowpipe Analysis	2	..
Geology 214	Descriptive Mineralogy	..	2
Military 202	Basic Course	..	1
Physical Education 202	Advanced Exercises	½	..
Chemistry 232	Quantitative Analytical Chemistry	2	1
			17½

Junior Year—First Semester			
Mining 351	Excavation	..	3
Metallurgy 341	Assaying	3	1
Mathematics 341	Analytic Mechanics	..	3
Civil Engineering 241	Plane Surveying	1	2
Geology 351	Petrology	1	1
Elective		..	3
			18

Junior Year—Second Semester			
Mining 352	Mine Plant	..	3
Metallurgy 366	Ore Dressing	..	2
Metallurgy 368	Ore Dressing	2	..
Geology 360	Economics Geology Nonmetallic	..	3
Civil Engineering 242	Plane Surveying	2	3
Geology 352 (or Metallurgy 356)	Petrography (Metallography)	2	1
			18

Senior Year—First Semester			
Geology 461	Economic Geology of Metals	..	3
Mining 461	Mining Methods	..	3
Metallurgy 471	Hydro-Metallurgy	1	2
Metallurgy 461	Pyro-Metallurgy, nonferrous metals	..	3
Political Science 301	Constitution of U. S.	..	1
Mining 479, Metallurgy 479, or Geology 479		2	..
Civil Engineering 361	Hydraulics	..	3
			18

Senior Year—Second Semester		LAB.	LEC.
Mining 472	Mine Administration	--	3
Mining 474	Mineral Industry Economics	--	3
Electrical Engineering 375	Electricity in Mining	--	3
Political Science 302	Constitution of Nevada	--	1
Mining 480, Metallurgy 480, or Geology 479		2	--
Civil Engineering 372	Strength of Materials	--	3
Civil Engineering 374	Metals Testing Laboratory	1	--
Elective		--	4
			20

MACKAY SCHOOL OF MINES

METALLURGY COURSE

Freshman Year—First Semester		LAB.	LEC.
English 101	Composition and Rhetoric	--	3
Chemistry 101	General Inorganic Chemistry	--	2
Mathematics 151	Mathematical Analysis	--	5
M. E. 105	Engineering Drawing and Descriptive Geometry	2	--
Mining 107	Introduction to Mining	--	1
*Art 101	Freehand Drawing	1	--
Military 101	Basic Course	1	--
Physical Education 101	Developmental Exercises	½	--
			17½

Freshman Year—Second Semester			
English 102	Composition and Rhetoric	--	3
Chemistry 102	Metals	--	2
Chemistry 124	Qualitative	1	1
Mathematics 152	Mathematical Analysis		5
M. E. 106	Engineering Drawing and Descriptive Geometry	2	--
Geology 110	Engineering Geology	--	3
Military 102	Basic Course	1	--
Physical Education 102	Developmental Exercises	½	--
			18½

Summer Work		
Mining A	Practical Metallurgical Work	Four Weeks

Sophomore Year—First Semester			
Mathematics 241	Differential Calculus	--	3
Physics 203	Engineering Physics	--	4
Physics 205	Physical Measurements	2	--
Geology 211	Determinative Mineralogy	2	--
Chemistry 231	Quantitative Chemistry	2	1
Military 201	Basic Course	--	1
Physical Education 201	Advanced Exercises	½	--
Elective			2
			17½

*See footnote p. 168.

Sophomore Year—Second Semester		LAB.	LEC.
Mathematics 242	Integral Calculus	..	3
Physics 204	General Physics for Engineers	..	4
Physics 206	Physical Measurements	1	..
Metallurgy 204	Engineering Metallurgy	..	2
Geology 212	Blowpipe Analysis	2	..
Geology 214	Descriptive Mineralogy	..	2
Chemistry 232	Quantitative Chemistry	2	1
Military 202	Basic Course	..	1
Physical Education 202	Advanced Exercises	½	..
			18½

Junior Year—First Semester			
Metallurgy 358	Ferrous Metallurgy	..	2
Metallurgy 341	Fire Assaying	3	1
Mathematics 341	Analytic Mechanics	..	3
Civil Engineering 241	Plane Surveying	1	2
Political Science 301	Constitution of U. S.	..	1
Elective		..	3
			16

Junior Year—Second Semester			
Metallurgy 356	Metallography	2	1
Metallurgy 366	Ore Dressing	..	2
Metallurgy 361	Ore Dressing	2	..
Geology 360	Economics Geology Nonmetallic	..	3
Civil Engineering 242	Plane Surveying	2	3
Political Science 302	Constitution of Nevada	..	1
Elective		..	2
			18

Senior Year—First Semester			
Chemistry 451	Physical Chemistry	1	3
Metallurgy 471	Hydro-Metallurgy	1	2
Metallurgy 461	Pyro-Metallurgy	..	3
Civil Engineering 361	Hydraulics	..	3
Project in Metallurgy		2	..
Elective		..	3
			18

Senior Year—Second Semester			
Chemistry 452	Physical Chemistry	1	3
Mining 474	Mineral Industry Economics	..	3
Electrical Engineering 375	Electricity in Mining	..	3
Civil Engineering 372	Strength of Materials	..	3
Civil Engineering 374	Metals Testing Laboratory	1	..
Metallurgy 472	Electro-Metallurgy	..	2
Metallurgy 476	Problems and Seminar	..	2
Project in Metallurgy		2	..
			20

NOTE—The electives are not free electives but must be so selected as to form a part of a systematic course of training in metallurgical engineering. Two nontechnical electives may be taken in the senior year.

MACKAY SCHOOL OF MINES

GEOLOGICAL ENGINEERING

(First two years—same as General Mining Course)

		LAB.	LEC.
	Junior Year—First Semester		
Civil Engineering 241	Plane Surveying	1	2
*Foreign Languages	First Year	--	5
Geology 351	Petrology	1	1
Geology 370	Field Geology	1	--
Geology 382	Structural Geology	--	3
Mining 461	Mining Methods	--	3
			17
	Junior Year—Second Semester		
Civil Engineering 242	Plane Surveying	2	3
Geology 352	Petrography	2	1
Geology 354	Geologic Reports	--	2
Geology 360	Economic Geology of Nonmetals	--	3
*Foreign Languages	First Year	--	5
			18
	Summer Course		
Geology 410	Summer Field Geology	--	6
	Senior Year—First Semester		
Political Science 301	Constitution of U. S	--	1
*Foreign Languages	Second Year	--	3
*English 111	Public Speaking	--	2
Geology 353	Stratigraphic Paleontology	1	2
Geology 461	Economic Geology of Metals	--	3
Geology 479	Geology Project	2	--
Geology 480	Geophysical Methods	1	2
			17
	Senior Year—Second Semester		
Political Science 302	Constitution of Nevada	--	1
*Foreign Languages	Second Year	--	3
*Geology 440	Geomorphology	--	3
Geology 479	Geology Project	2	--
*Geology 430	Petroleum Geology	--	3
Geology 485	Seminar	1	1
Elective		--	2
			16

SCHOOL OF MECHANICAL ENGINEERING

		LAB.	LEC.
	Freshman Year—First Semester		
English 101	Composition and Rhetoric	--	3
Chemistry 101	General Inorganic Chemistry	2	2
Mathematics 151	Mathematical Analysis	--	5
M. E. 105	Engineering Drawing and Descriptive Geometry	2	--
*History 105	European Civilization	--	3
Military 101	Basic Course	1	--
Physical Education 101	Developmental Exercises	½	--
			18½

*May be substituted for by permission.

Freshman Year—Second Semester		LAB.	LEC.
English 102	Composition and Rhetoric	..	3
Chemistry 102	Metals	..	2
Chemistry 124	Qualitative	1	1
Mathematics 152	Mathematical Analysis	..	5
M. E. 106	Engineering Drawing and Descriptive Geometry	2	..
*History 106	European Civilization	..	3
Military 102	Basic Course	1	..
Physical Education 102	Development Exercises	½	..
			18½

Sophomore Year—First Semester			
Physics 203	General Physics for Engineers	..	4
Physics 205	Physical Measurements	2	..
Mathematics 251	Engineering Calculus	..	4
Civil Engineering 241	Elementary Surveying	1	2
*History 101	United States History	..	3
Military 201	Basic Course	1	..
Physical Education 201	Advanced Exercises	½	..
			17½

Sophomore Year—Second Semester			
Physics 204	General Physics for Engineers	..	4
Physics 206	Physical Measurements	2	..
Mathematics 252	Engineering Calculus	..	4
Metallurgy 206	Engineering Materials and Processes	..	2
Mechanic Arts 226	Engineering Materials and Processes Laboratory	1	..
*History 102	United States History	..	3
Military 202	Basic Course	1	..
Physical Education 202	Advanced Exercises	½	..
			17½

Junior Year—First Semester			
Mathematics 341	Analytic Mechanics	..	3
Electrical Engineering 351	Direct Current Machinery	..	3
Electrical Engineering 353	Direct Current Machinery Laboratory	2	..
M. E. 351	Kinematics	2	1
M. E. 355	Thermodynamics	..	3
Mathematics 351	Differential Equations	..	2
Literature	To Be Chosen	..	2
			18

*Courses marked with an asterisk may be substituted for only when approved in writing by the adviser.

Junior Year—Second Semester		LAB.	LEC.
Mathematics 342	Analytic Mechanics	..	2
Civil Engineering 376	Mechanics of Materials	1	3
Electrical Engineering 352	Alternating Current Machinery	..	3
Electrical Engineering 354	Alternating Current Machinery Laboratory	2	..
M. E. 356	Applied Thermodynamics	..	3
M. E. 464	Mechanical Engineering Laboratory	2	..
Literature	To Be Chosen	..	2
			18

Senior Year—First Semester			
M. E. 465	Mechanical Engineering Laboratory	2	..
M. E. 457	Machine Design	1	2
M. E. 471	Heat-Power Engineering	..	3
Civil Engineering 367	Elementary Fluid Mechanics	2	3
Political Science 301	Constitution of U. S.	..	1
English 111	Public Speaking	..	2
Economics 203	Economics for Engineers	..	3
			19

Senior Year—Second Semester			
M. E. 458	Machine Design Problem	2	1
M. E. 472	Air Conditioning and Refrigeration	..	3
M. E. 476	Mechanical Vibrations	..	3
M. E. 477	Internal Combustion Engines	..	3
Business Admin. 241	Fundamentals of Business Organization	..	3
Political Science 302	Constitution of Nevada	..	1
Elective (C. E. 176 recommended)		..	1
			17

School of Electrical Engineering

Freshman Year—First Semester		LAB.	LEC.
English 101	Composition and Rhetoric	..	3
Chemistry 101	General Inorganic Chemistry	2	2
Mathematics 151	Mathematical Analysis	..	5
M. E. 105	Engineering Drawing and Descriptive Geometry	2	..
Military 101	Basic Course	1	4
Physical Education 101	Developmental Exercises	½	..
*Elective	Humanities	..	2
			17½

*Electives selected under supervision of adviser.

Freshman Year—Second Semester		LAB.	LEC.
English 102	Composition and Rhetoric	..	3
Chemistry 102	Metals	..	2
Chemistry 124	Qualitative	1	1
Mathematics 152	Mathematical Analysis	..	5
M. E. 106	Engineering Drawing and Descriptive Geometry	2	..
Military 102	Basic Course	1	..
Physical Education 102	Developmental Exercises	½	..
*Elective	Humanities	..	3
			18½

Sophomore Year—First Semester			
Physics 203	General Physics for Engineers	..	4
Physics 205	Physical Measurements	2	..
Mathematics 251	Calculus for Engineers	..	4
Civil Engineering 241	Surveying	1	2
English 111	Public Speaking	..	2
Military 201	Basic Course, second year	..	1
Physical Education 201	Advanced Exercises	½	..
*Elective	Humanities	..	2
			18½

Sophomore Year—Second Semester			
Physics 204	General Physics for Engineers	..	4
Physics 206	Physical Measurements	2	..
Mathematics 252	Calculus for Engineers	..	4
Metallurgy 206	Engineering Materials and Processes	..	2
Mechanic Arts 226	Engineering Materials and Processes Laboratory	1	..
Military 201	Basic Course, second year	..	1
Physical Education 202	Advanced Exercises	½	..
*Elective	Humanities	..	3
			17½

Junior Year—First Semester			
Electrical Engineering 351	Direct Current Machinery	..	3
Electrical Engineering 353	Direct Current Machinery Lab.	2	..
Electrical Engineering 355	Introduction to Electric Circuits	..	2
Mathematics 341	Mechanics	..	3
Business Adm. 241	Business Organization	..	3
Mathematics 351	Differential Equations	..	2
*Electives		..	3
			18

*Electives selected under supervision of adviser.

Junior Year—Second Semester	LAB.	LEC
Electrical Engineering 352...Alternating Current Machinery	..	3
Electrical Engineering 354...Alternating Current Machinery Laboratory	2	..
Electrical Engineering 356...Alternating Current Circuits	..	2
Electrical Engineering 368...Introduction to Electronics	1	2
Civil Engineering 372.....Strength of Materials	..	3
Mathematics 342.....Mechanics	..	2
*Electives	..	3
		18

Senior Year—First Semester		
Electrical Engineering 469...Industrial Electronics	1	1
Electrical Engineering 461...Advanced Alternating Current Machinery	..	3
Mechanical Eng. 457.....Machine Design	1	2
Political Science 301.....Constitution of United States	..	1
*Electives	..	3
Electronics Option		
Electrical Engineering 481...Advanced Electronics	2	4
		18
Power Option		
Electrical Engineering 463...Advanced Alternating Current Laboratory	3	..
Mechanical Eng. 353.....Fundamentals of Thermodynamics	..	3
		18

Senior Year—Second Semester		
Electrical Engineering 462...Electrical Design	1	2
Electrical Engineering 488...Seminar	..	1
Political Science 302.....Constitution of Nevada	..	1
Civil Engineering 361.....Hydraulics	..	3
*Electives	..	2
Electronics Option		
Electrical Engineering 482...Radio Communication and Microwaves	2	4
Physics 472.....Modern Physics	..	2
		18
Power Option		
Electrical Engineering 464...Advanced Alternating Current Laboratory	3	..
Electrical Engineering 466...Generation and Distribution of Power	..	3
Mechanical Eng. 464.....Mechanical Laboratory	..	2
		18

*Electives selected under supervision of adviser.

School of Civil Engineering

		LAB.	LEC.
Freshman Year—First Semester			
English 101	Composition and Rhetoric	..	3
Chemistry 101	General Inorganic	2	2
Mathematics 151	Mathematical Analysis	..	5
Mechanical Eng. 105	Drawing and Descriptive	2	..
Economics 107*	Economic Geography	..	2
Military 101	Basic	1	..
Physical Education 101	Developmental Exercises	½	..
			17½
Freshman Year—Second Semester			
English 102	Composition and Rhetoric	..	3
Chemistry 102	General Chemistry of Metals	..	2
Chemistry 124	Qualitative Analysis	1	1
Mathematics 152	Mathematical Analysis	..	5
Mechanical Eng. 106	Drawing and Descriptive	2	..
Geology 110*	Engineering Geology	..	3
Military 102	Basic	1	..
Physical Education 102	Developmental Exercises	½	..
			18½
Sophomore Year—First Semester			
Mathematics 251	Calculus		4
Physics 203	General Physics for Engineers	..	4
Physics 205	Physical Measurements	2	..
Civil Engineering 241	Plane Surveying	1	2
Civil Engineering 245	Engineering Problems	1	1
English 111	Public Speaking	..	2
Military 201	Basic	1	..
Physical Education 201	Advanced Exercises	½	..
			18½
Sophomore Year—Second Semester			
Mathematics 252	Calculus		4
Physics 204	General Physics for Engineers	..	4
Physics 206	Physical Measurements	2	..
Civil Engineering 242	Plane Surveying	2	2
Civil Engineering 246	Construction Materials	..	3
Military 202	Basic	1	..
Physical Education 202	Advanced Exercises	½	..
			18½
Junior Year—First Semester			
Mathematics 341	Analytical Mechanics	..	3
Civil Engineering 363	Curves and Earthwork	1	2
Civil Engineering 366	Roads and Pavements	..	4
Civil Engineering 369	Nonmetallic Testing Laboratory	1	..
Economics 203	Engineering Economics	..	3
Political Science 301	Constitution of United States	..	1
Elective		..	3
			18

*Substitutions may be made for these courses with the express approval of the adviser. Substitutions are expected to be in the Humanities.

Junior Year—Second Semester		LAB.	LEC.
Mathematics 342	Analytical Mechanics	..	2
Mechanical Eng. 491	Contracts and Specifications	..	2
Civil Engineering 376	Mechanics of Materials	1	3
Civil Engineering 374	Metals Test—Laboratory	1	..
Civil Engineering 367	Elementary Fluid Mechanics	2	3
Political Science 302	Constitution of Nevada	..	1
Elective		..	3
			18

Senior Year—First Semester			
Civil Engineering 481	Framed Structures	2	3
Civil Engineering 485	Mechanics of Reinforced Concrete	1	3
Civil Engineering 489	Sanitary Engineering	..	3
M. E. 353	Fundamentals of Thermodynamics	..	3
Elective		..	3
			18

Senior Year—Second Semester			
Civil Engineering 484	Structural Design	2	2
Civil Engineering 486	Reinforced Concrete Design	2	1
Civil Engineering 488	Engineering Economy	..	2
Civil Engineering 490	Sanitary Engineering	..	3
Civil Engineering 492	Foundations	..	3
Elective		..	3
			18

The College of Agriculture

1. THE SCHOOL OF AGRICULTURE.
2. THE SCHOOL OF HOME ECONOMICS.

AIM

The aim of the College of Agriculture is to give such training in scientific and vocational agriculture and home economics as will furnish a well-rounded education and fit students for professional positions.

EQUIPMENT

AGRICULTURE BUILDING AND UNIVERSITY FARMS—For descriptions see *Buildings*, Index.

DAIRY—The laboratory in the Agriculture Building, equipped with machinery and apparatus, furnishes opportunity for instruction in methods of handling milk and dairy products, as milk testing, dairy manufacturing, and the marketing of milk.

FARM MECHANICS SHOP—The shop for farm mechanics work is located in a Quonset hut on the north end of the campus. It is well equipped, with forges and other equipment for blacksmithing, tools and equipment for sheetmetal work, soldering, plumbing, cold metal work, building construction, farm machinery repair and gas engine and tractor work.

GREENHOUSE—A greenhouse is available to students for laboratory work in courses in botany, horticulture, agronomy, and soils. A large room is devoted to experimental work in plant physiology, plant diseases, and plant propogation, while other rooms in the greenhouse make available materials for laboratory work in the beginning courses.

THE HERBARIUM—The Herbarium of the University of Nevada contains at the present time approximately 20,000 sheets, representing, in large part, collections made in Nevada. This Herbarium is probably the most complete collection of Nevada plants in existence and additional new plants of the State are being added from year to year. It is located in the Agriculture Building and is administered by the botany staff.

ADMISSION REQUIREMENTS

For admission requirements, entrance subjects, and the number of credits belonging to each, see Index for subjects about which information is desired.

Requirements for a Baccalaureate Degree In Agriculture

The degree of Bachelor of Science in Agriculture with majors in general agriculture, agricultural economics, animal production, plant production, and agricultural education will be conferred upon students who satisfactorily complete the full course of study in the selected major field in the School of Agriculture, aggregating 132 semester units.

Candidates for the degree of Bachelor of Science in Agriculture must present satisfactory evidence of at least twelve week's actual farm experience before they will be recommended for the degree.

College of Agriculture

Courses of Study

Definition of a major in the College of Agriculture: To complete a major in the College of Agriculture means that a student has not completed a given number of hours in a specific department, but that he has completed a prescribed curriculum in a given field in the college.

Curricula in Agriculture

Freshman Year

	1st Sem.	2d Sem.
Military Science and Physical Education	1½	1½
English	3	3
General Chemistry	4	2
Botany and Zoology	3	4
Animal Husbandry	3	..
Survey of Agriculture	1	..
Select from Dairy Husbandry 102, Horticulture 102, Chemistry 122, Mathematics 101, 102 or 110, according to major	..	6
	15½	16½

General Agriculture Major

Sophomore Year

		1st Sem.	2d Sem.
Military 201-202	Second Year Elementary Military	1	1
Physical Educ. 201-202	Advanced Exercises	½	½
Agr. Economics 101-102	Principles of Economics	3	3
Animal Husbandry 203	Livestock Judging	3	..
Agronomy 201	Field Crops	3	..
Agronomy 202	Forage Crops	..	3
Farm Mechanics 211	Forging	2	..
Farm Mechanics 220	Farm Utilities	..	2
Agronomy 216	Soils	..	3
English 111	Public Speaking	2	..
Chemistry 242	Introductory Organic	..	4
Elective	Recommended Economic Geography	2	..
		16½	16½

Junior Year		1st Sem.	2d Sem.
Animal Husbandry 330	Feeds and Feeding	--	3
Soils 317	Soil Fertility	3	--
Horticulture 356	Vegetable Production	--	3
Agricultural Electives		9	7
Electives		5	4
		17	17

Senior Year			
Political Science 301-302	Constitution of U. S. and Nevada	1	1
Agricultural Electives		9	9
Electives		7	7
(Recommended, Journalism 370)		17	17

Agricultural Economics Major

Uniform Freshman Year

(See Page 40)

Sophomore Year		1st Sem.	2d Sem.
Military 201-202	Basic Course	1	1
Physical Educ. 201-202	Advanced Exercises	½	½
Agr. Economics 201-202	Principles of Economics with Application to Agriculture	3	3
Agronomy 201-202	Field Crops and Forage Crops	3	3
Agronomy 216	Soils	--	3
Animal Husbandry 203	Livestock Judging	3	--
English 111-112	Public Speaking	2	2
Electives		4	4
		16½	16½

Junior Year		1st Sem.	2d Sem.
Agr. Economic 357	Marketing Agricultural Products	3	--
Agr. Economics 355	Farm Finance	2	--
Agr. Economics 352	Agricultural Economic Policy	--	3
Agr. Economics 356	Land Economics	--	2
Sociology 350	Rural Sociology	3	2
Economics 361	Statistical Methods	3	--
Agr. Economics 245	Farm Accounting	--	--
Animal Husbandry 330	Feeds and Feeding	6	3
Electives			7
		17	17

Senior Year			
Political Science 301-302	Constitution of U. S. and Nevada	1	1
Agr. Economics 465	Agricultural Prices	3	--
Agr. Economics 476	Farm Management	--	3
Agr. Economics 464	Cooperative Organizations	--	2
Economics 353	Money and Banking	3	--
Farm Mechanics 354	Irrigation and Structures	--	3
Electives		9	7
		16	16

Recommended electives for Agricultural Economics Major—
Farm Mechanics 211 and 220.
Animal Husbandry 358 or 466.
Agronomy 316, 359, and 360.
Mathematics 101-102-110.
Economics 107, 110, 358, 362, 364, 373.
Business 241, 247, 371.
Geology 101 or 110.
Psychology 201, 205.
Journalism 370.

Agricultural Education

		1st Sem.	2d Sem.
	Freshman		
Military 101-102	Basic	1	1
Physical Ed. 101-102	Development Exercises	½	½
English 101-102	Composition and Rhetoric	3	3
Chemistry 101-102	General Inorganic	4	2
Zoology 101	Survey of Zoology	3	--
Botany 103	General Botany	--	3
Animal Husbandry 101	Breeds of Livestock	3	--
Dairy Husbandry 102	Elements of Dairy Husbandry	--	3
Horticulture 102	Elements of Horticulture	--	2
Orientation 103	Survey of Agriculture	1	--
Mathematics 101		--	2
		15½	16½
	Sophomore		
Military 201-202	Basic Course	1	1
Physical Educ. 201-202	Advanced Exercises	½	½
Animal Husbandry 203	Livestock Judging	3	--
Agronomy 216	Soils	--	3
Agronomy 201	Field Crops	3	--
Agronomy 202	Forage Crops	--	3
Education 190	School Law	2	--
Poultry 101	Farm Poultry Management	3	--
Farm Mechanics 220	General Mechanics	--	2
Agr. Economics 101-102	Principles of Economics with Application to Agriculture	3	3
Chemistry 242	Introductory Organic	--	4
Electives		2	--
		17½	16½
	Junior		
Animal Husbandry 330	Feeds and Feeding	--	3
Dairy Husbandry 352	Milk Production	--	3
Agr. Economics 245	Farm Accounting	3	--
Farm Mechanics 341-332	Farm Machinery, Farm Structures	2	2
Psychology 221	Educational	--	3
Education 310	Problems in Secondary Education	2	--
Farm Mechanics 312	Welding	--	2
Animal Husbandry 301	Anatomy and Physiology of Farm Animals	3	--
Political Science 301-302	Constitution of United States and Nevada	1	1
Electives		6	3
		17	17

Senior

		1 Six	2 Weeks	3	
Agronomy 359	Range Management	3	--	--	--
Agronomy 317	Soil Fertility	3	--	--	--
Agronomy 401	Crop Standards	2	--	--	--
Farm Mechanics 485	Methods of Farm Shop	2	--	--	--
Farm Mechanics 453	Gas Engines and Tractors	2	--	--	--
Education 446	Problems in Agricultural Education	--	--	--	2
Education 447	Methods of Teaching	--	3	--	--
Education 420	Practice Teaching	--	--	6	--
Education 482	Noninstructional Responsibility of High School Teachers	--	1	--	1
Electives		5	2	--	--
		17	15		

Suggested Electives

Sophomore

		1st Sem.	*2d Sem.*
English 111	Public Speaking	2	--
Sociology 350	Rural Sociology	--	2

Junior

Agronomy 346	Weed Control	--	3
Journalsim 370	Agr. and Home Economics	2	--
Animal Husbandry 458	Range Livestock Management	2	--
Horticulture 356	Vegetable Growing	--	3
Farm Mechanics 211	Forging	2	--
Mathematics 102	Plane Trigonometry	2	--

Senior

Dairy Husbandry 462	Special Problems	--	2
Agr. Economics 465	Agricultural Prices	3	--
Agr. Economics 357	Marketing Agricultural Products	3	--
Agr. Economics 355	Farm Finance	2	--
Animal Husbandry 455	Advanced Feeding	3	--
Horticulture 201	Ornamental Horticulture	2	--
Civil Engineering 241	Plane Surveying	3	--
Education 145	Visual Aids	3	--
Journalism 370	Agr. and Home Economics	2	--

Plant Production Major
Agronomy—Crops Option
Uniform Freshman Year
(See Page 176)

		15½	16½

Sophomore Year

		1st Sem.	2d Sem.
Military 201-202	Basic Course	1	1
Physical Edu. 201-202	Advanced Exercises	½	½
Agr. Economics 201	Principles of Economics with Application to Agriculture	3	..
		..	4
Chemistry 242	Introductory Organic	3	..
Agronomy 201	Field Crops	..	3
Agronomy 202	Forage Crops	2	..
Farm Mechanics 211	Forging	..	3
Agronomy 216	Soils	2	..
English 111	Public Speaking	..	4
Botany 222	Taxonomy	5	1
Electives			
		16½	16½

Junior Year

Farm Mechanics 220	General Mechanics	..	2
Agronomy 317	Soil Fertility	3	..
Agronomy 359-360	Principles of Range and Pasture Management	3	3
		..	3
Agronomy 346	Weeds and Weed Control	3	..
Agronomy 355	Crop Ecology		
Agronomy 367 or 460	Literature of Field Crops, Literature of Forage Crops	2	..
Botany 355	Plant Physiology	4	..
Zoology 350	Genetics	..	2
Electives		2	7
		17	17

Senior Year

		1st Sem.	2d Sem.
Farm Mechanics 354	Irrigation and Structures	..	3
Agronomy 456	Crop Improvement	..	3
Political Science 301-302	Constitution of United States and Nevada	1	1
Botany 364	Plant Pathology	4	..
Zoology 359	Entomology	3	..
Horticulture 356	Vegetable Crops	..	3
Agr. Economics 476	Farm Management	..	3
Electives		9	3
		17	16

Crops Option—Suggested Electives

		Credits	
Geology 110	Engineering Geology	3	
Physics 151-152	General Physics	3	+3
Geography 109	Climatology	3	
Horticulture 353	Fruit Growing	3	
Farm Mechanics 332	Farm Machinery and Equipment	2	
Agr. Economics 245	Farm Accounting	3	
Agr. Economics 356	Land Economics	2	
Animal Husbandry 203	Livestock Judging	3	
Animal Husbandry 330	Feeds and Feeding	3	
Agronomy 457	Experimental Methods in Agronomy Research	3	
Dairy Husbandry 352	Milk Production	3	
Botany 494	Seminar	1–2	
Agronomy 316	Soil Conservation	3	
Farm Mechanics 353	Gas Engines and Tractors	2	
Farm Mechanics 335	Advanced Mechanics	2	
Farm Mechanics 312	Welding	2	
Agronomy 401	Crop Standards	2	
Journalism 370	Agricultural Journalism	3	

Range and Pasture Management

Uniform Freshman Year

(See Page 176)

		15½	16½
	Sophomore Year	*1st Sem.*	*2d Sem.*
Military 201-202	Basic Course	1	1
Physical Edu. 201-202	Advanced Exercises	½	½
Agr. Economics 201	Principles of Economics with Application to Agriculture	3	--
Chemistry 242	Introductory Organic	--	4
Mathematics 102	Plane Trigonometry	3	--
Agronomy 202	Forage Crops	--	3
Botany 222	Taxonomy	--	4
Farm Mechanics 211	Forging	2	--
Agronomy 216	Soils	--	3
Animal Husbandry 203	Livestock Judging	3	--
English 111	Public Speaking	2	--
Electives		2	2
		16½	17½
	Junior Year		
Agronomy 316	Soil Conservation	--	3
Agronomy 359-360	Principles of Range and Pasture Management	3	3
Agronomy 346	Weeds and Weed Control	--	3
Agronomy 464	Range Field Trip	--	1
Animal Husbandry 330	Feeds and Feeding	4	--
Botany 355	Plant Physiology	3	--
Civil Engineering 241	Surveying	7	4
Electives		17	17

Senior Year		*1st Sem.*	*2d Sem.*
Farm Mechanics 354	Irrigation Structures	..	2
Botany 475	Plant Ecology	4	..
Botany 354	Agrostology	..	3
Agr. Economics 245	Farm Accounting	3	..
Zoology 359	Entomology	3	..
Agronomy 469	Range Literature	2	..
Agronomy 468	Advanced Range Management	..	3
Animal Husbandry 358	Range Livestock Management	..	3
Political Science 301-302	Constitution of United States and Nevada	1	1
Electives		4	3
		17	15

Range and Pasture Option—Suggested Electives

		Credits
Agronomy 317	Soil Fertility	3
Farm Mechanics 332	Farm Machinery and Equipment	2
Agr. Economics 356	Land Economics	2
Geology 110	Engineering Geology	3
Physics 151-152 and 153-154	General Physics	3 +3
Zoology 350	Genetics	2 or 3
Agr. Economics 476	Farm Management	3
Animal Husbandry 301	Anatomy and Physiology of Farm Animals	3
Animal Husbandry 302	Diseases of Farm Animals and Poultry	2
Dairy Husbandry 352	Milk Production	3
Botany 364	Plant Pathology	4
Farm Mechanics 220	General Mechanics	2
Botany 476	Plant Ecology	4
Agronomy 201	Field Crops	3
Journalism 370	Agricultural Journalism	3
Mathematics 101	Intermediate Algebra	2
Mathematics 102	Plane Trigonometry	3

Agronomy—Soils Option

Uniform Freshman Year (See Page 176)

With Chemistry 122 or 124 required in the second semester.

15½ 16½

Sophomore Year

		1st Sem.	*2d Sem.*
Military 201-202	Basic Course	1	1
Physical Edu. 201-202	Advanced Exercises	½	½
Agr. Economics 201-202	Principles of Agricultural Economics	3	3
Farm Mechanics 211	Forging	2	..
Agronomy 201	Field Crops	3	..
Agronomy 202	Forage Crops	..	3
Agronomy 216	Soils	..	3
English 111	Public Speaking	2	..
Chemistry 231	Quantitative Analysis	3	..
Chemistry 232 or 242	Quantitative Analysis or Introductory Organic	..	3–4
Electives		2	3–2
		16½	16½

	Junior Year	*1st Sem.*	*2d Sem.*
Botany 355	Plant Physiology	4	..
Agronomy 317	Soil Fertility	3	..
Agronomy 315	Soil Genesis	3	..
Farm Mechanics 220	General Mechanics	..	2
Agronomy 316	Soil Conservation	..	3
Physics 151-152, 153-154	General Physics	4	4
Geology 110	Engineering Geology	..	3
Electives		3	5
		17	17
	Senior Year		
Botany 364	Plant Pathology	4	..
Botany 351	General Bacteriology	4	..
Political Science 301-302	Constitution of United States and Nevada	1	1
Farm Mechanics 356	Irrigation and Structures	..	3
Agronomy 471a	Soil Seminar	..	1
Agronomy 318	Soil Analysis	..	3
Agr. Economics 476	Farm Management	..	3
Farm Mechanics 332	Farm Machinery and Equipment	..	2
Electives		8	3
		17	16

Suggested Electives—

For students more interested in Technical Soils:		*Credits*
Chemistry 232	Quantitative Analysis	3
Chemistry 341-342	Organic Chemistry in place of 242	8
Mathematics 101	Intermediate Algebra	2
Mathematics 110	College Algebra	3
Mathematics 102	Plane Trigonometry	2
Mathematics 140	Analytical Geometry	3
Agronomy 415	Soil Physics	3
Civil Engineering 241	Surveying	3
For students more interested in General Soils:		
Farm Mechanics 353	Advanced Agricultural Mechanics	2
Botany 222	Taxonomy	4
Agronomy 355	Crop Ecology	3
Agronomy 359-360	Range and Pasture Management	6
Agronomy 346	Weeds and Weed Control	3
Agronomy 457	Experimental Methods in Agronomic Research	3
Geography 109	Climatology	3
Agr. Economics 356	Land Economics	2
Horticulture 356	Vegetable Growing	3
Zoology 359	Entomology	3
Animal Husbandry 203	Stock Judging	3
Animal Husbandry 330	Feeds and Feeding	3
Dairy Husbandry 352	Milk Production	2
Farm Mechanics 212	Welding	2
Farm Mechanics 353	Gas Engines and Tractors	3
Civil Engineering 241	Surveying	3
Journalism 370	Agricultural Journalism	

Horticulture Option

Uniform Freshman Year

(See Page 176)

Sophomore Year

		1st Sem.	2d Sem.
Military 201-202	Second Year Elementary Military	1	1
Physical Edu. 201-202	Advanced Exercises	½	½
Agr. Economics 101-102	Principles of Agr. Economics	3	3
Horticulture 201	Ornamental Horticulture	2	..
Agriculture 204	Plant Propagation	..	2
Botany 221	Plant Morphology and Anatomy	3	..
Agronomy 216	Soils	..	3
English 111	Public Speaking	2	..
Chemistry 242	Introductory Organic	..	4
Farm Mechanics 211	Forging	2	..
Farm Mechanics 220	Farm Utilities	..	2
Electives		3	2
		16½	17½

Junior Year

		1st Sem.	2d Sem.
Horticulture 353	Fruit Growing	3	..
Horticulture 356	Vegetable Growing	..	3
Botany 364	Plant Diseases	4	..
Farm Mechanics 332	Farm Machinery	..	2
Zoology 359	Insects	3	..
Zoology 350	Genetics	..	2
Agronomy 317	Soil Fertility	3	..
Geology 110	Engineering Geology	..	3
Agr. Economics 355	Rural Finance	2	..
Agr. Economics 352	Agricultural Economic Policy	..	3
Electives		2	4
		17	17

Senior Year

Political Science 301	Constitution of United States and Nevada	1	1
Botany 355	Plant Physiology	4	..
Farm Mechanics 356	Irrigation and Structures	..	3
Horticulture 354	Pest and Disease Control	..	2
Farm Mechanics 353	Gas Engines and Tractors	2	..
Horticulture 491-492	Special Problems in Horticulture	3	3
Electives		7	6
		17	15

Recommended Courses

Journalism 370	Agricultural Journalism	..	3
Agronomy 316	Soil Conservation	..	3
Agronomy 201-202	Field and Forage Crops	3	3
Agronomy 346	Weeds and Weed Control	..	3
Farm Mechanics 435	Advanced Agricultural Mechanics	2	..
Farm Mechanics 341	Farm Structures	2	..
Agr. Economics 245	Farm Accounting	3	..
Agr. Economics 357	Marketing of Agri. Products	3	..
Agr. Economics 476	Farm Management	..	3

Animal Production Major

Uniform Freshman Year

(See Page 176)

		15½	16½
	Sophomore Year	*1st Sem.*	*2d Sem.*
Military 201-202	Basic Course	1	1
Physical Edu. 201-202	Advanced Exercises	½	½
Agr. Economics 101-102	Principles of Economics with Application to Agriculture	3	3
Animal Husbandry 203	Livestock Judging	3	..
Agronomy 201-202	Field Crops—Forage Crops	3	3
Chemistry 242	Introductory Organic	..	4
Farm Mechanics 211	Forging	..	2
Farm Mechanics 220	General Mechanics	3	..
Poultry Husbandry 101	Farm Poultry Management	..	3
Agronomy 216	Soils	2	..
English 111	Public Speaking	..	2
		17½	16½
	Junior Year		
English 112	Public Speaking	..	2
Horticulture 356	Vegetable Production	..	3
Agronomy 359	Principles of Range and Pasture Management	3	..
Animal Husbandry 358	Range Livestock Management	2	..
Animal Husbandry 330	Feeds and Feeding	..	3
Animal Husbandry 356	Advanced Livestock Judging	3	..
Animal Husbandry 363-364	Animal Husbandry Literature	2	2
Farm Mechanics 341	Farm Structure	..	2
Dairy Husbandry 352	Milk Production	..	3
Electives		5	4
Recommended:			
Farm Mechanics 353-341			
Animal Husbandry 301-302		17	17
	Senior Year		
Political Science 301-302	Constitution of United States and Nevada	1	1
Animal Husbandry 455	Advanced Feeding	3	..
Animal Husbandry 466	Livestock Management	..	3
Farm Mechanics 332	Farm Machinery and Equipment	..	2
Farm Mechanics 212	Welding	..	2
Agr. Economics 476	Farm Management	3	3
Agr. Economics 357	Marketing Agricultural Products	3	..
Agr. Economics 245	Farm Accounting	6	..
Electives			5
		16	16

Qualifications of Teachers of Vocational Agriculture

A graduate of the College of Agriculture who desires to teach vocational agriculture in this State must fulfill the following requirements:

A. *Farm Experience.* The teacher of vocational agriculture must have had actual farm experience. Preference will be given to those graduates who have lived and worked upon a farm until the age of 18 years. In any case, the graduate must have had experience equal to two years after reaching the age of 14 years.

B. *Education.* All Agricultural College graduates who wish to qualify as teachers of vocational agriculture in Nevada should arrange to complete the courses as outlined for vocational agriculture education given on page 183. It is essential that vocational agriculture teachers have a broad training foundation in animal and plant production courses, agricultural economics, marketing and farm mechanics. The animal production courses include dairy and poultry.

a. All Agricultural College graduates who wish to qualify as teachers of vocational agriculture in Nevada must also have not less than 18 semester hours of credit in educational subjects, including courses in "Special Methods of Teaching Vocational Agriculture" and "Observations and Practice Teaching of Vocational Agriculture" and certain other educational subjects as specified by law for certification of teachers.

School of Home Economics

Requirements for a Baccalaureate Degree in Home Economics

Home Economics is a program of studies based on sound fundamental training in the physical, biological, and social sciences with application of these to living.

These are days of challenging responsibilities, of great opportunities, to be better equipped to take one's place in the home and in the community.

Three areas of concentration are offered in order to meet individual needs: teaching, foods and nutrition, and general. The degree of Bachelor of Science in Home Economics is conferred upon satisfactory completion of 126 semester units.

Home Economics Teaching Major

Freshman Year

		1st Sem.	2d Sem.
English 101-102	Composition and Rhetoric	3	3
Chemistry 101-102	General Inorganic Chemistry	4	2
Home Economics 103	Orientation	2	..
Home Economics 131	Food for Families		
or			
Home Economics 115	Clothing	3	..
Home Economics 132	Foods for Families		
or			
Home Economics 116	Textiles	..	3
Music 203 or 204	Music Appreciation	..	2
Physical Edu. 161-162	Freshman Practice	1	1
Art 101-102		2	..
Economics 218	Family Economics	..	3
Electives		..	1
		15	15

Sophomore Year

Physics 119	Physics of the Home	4	..
Home Economics 115	Clothing		
or			
Home Economics 131	Food for Families	3	..
Home Economics 116	Textiles		
or			
Home Economics 132	Foods	..	3
Home Economics 233	Nutrition and Health	3	..
Home Economics 367	Clothing the Family	..	3
Education 190	School Law	2	..
Journalism 370	Agricultural Journalism	..	3
English 111	Public Speaking	2	..
Psychology 221		..	3
Art	Appreciation or Crafts	2	..
Physical Edu. 261-262	Sophomore Practice	½	½
Electives		..	3
		16½	15½

Junior Year

Education 310	Problems in Secondary Education	2	..
Home Economics 475	Child Development	3	..
Home Economics 366	Advanced Clothing	..	3
Home Economics 253	Care of Family Health	3	..
Home Economics 476	Family Living	..	3
Home Economics 255	Meals for Families	..	4
Home Economics 487	Home Decoration	3	..
Home Economics 486	Managing Homes	..	3
Political Science 301	Constitution of United States	1	..
Sociology 380	The Family	..	3
Electives		5	2
		17	18

Senior Year		*1st Sem.*	*2d Sem.*
Home Economics 499	Demonstration	3	..
Education 489	Methods in Teaching Homemaking	..	3
Home Economics 488	Household Equipment	2	..
Education 488	Problems in Homemaking Edu	..	3
Botany 351	General Bacteriology	4	..
Education 475-476	Supervised Teaching in High School	..	6
Political Science 302	Constitution of Nevada	1	..
Education 482	Noninstructional Responsibility of High School Teacher	..	2
Elective		5	..
		15	14

Recommended:
Horticulture 201

Foods and Nutrition Major

Freshman Year		*1st Sem.*	*2d Sem.*
English 101-102	Composition and Rhetoric	3	3
Chemistry 101-102	General Inorganic	4	2
Home Economics 131-132	Foods	3	3
Home Economics 103	Orientation	2	..
Chemistry 242	Introductory Organic	..	3
Sociology 102		..	3
Physical Education 161-162		1	1
Electives		2	1
		15	16

Sophomore Year			
Physics 119		4	..
Home Economics 116	Textiles	..	3
Psychology 201	General	3	..
Psychology 241		..	3
Philosophy 221		..	3
Economics 218		..	3
Agricultural Economics 201		3	..
Physical Education 261-262		½	½
Electives		5	4
		15½	16½

Junior Year			
Chemistry 271	Physiological	5	..
Home Economics 334	Nutrition	..	3
Home Economics 499	Demonstration	3	..
Home Economics 493	Experimental Foods	2	..
English 315		..	2
Home Economics 255	Meal Planning	..	4
Zoology 346	Physiology	..	5
Electives		5	2
		15	16

Senior Year		*1st Sem.*	*2d Sem.*
Home Economics 491		3	..
Home Economics 475-476		3	3
Home Economics 436	Nutrition	..	3
Political Science 301-302	Constitutions of the United States and Nevada	1	1
Biology 351	Bacteriology	4	..
Home Economics 498		..	3
Home Economics 496		..	3
Home Economics 402	Seminar	..	3
Electives		5	..
		16	16

General Major

In addition to the two scientific, professional courses in the School of Home Economics (teaching and dietetics) a general major is offered for the young women who expect to marry soon after graduation. The subjects for the general major, widely selected from home economics, the humanities, the life sciences and social sciences, should help the student acquire the appreciations, understandings, and skills necessary for successful personal, family, and community living today.

The number of electives scheduled makes possible the choice of a minor to meet the special interests and needs of each student.

Freshman Year		*1st Sem.*	*2d Sem.*
English 101-102	Composition and Rhetoric	3	3
Speech 111-112	Public Speaking	2	2
Home Economics 131-132	Food for the Family	3	3
Physics 119	Household Physics	4	..
Psychology 121	Human Nature	2	..
Art 115	Art Appreciation	..	2
Sociology 102	Social Problems	..	3
Physical Education 161-162	Freshman Orientation	1	1
Electives		..	2
		15	16

Sophomore Year			
Home Economics 133-255	Nutrition for College Students: Art and Science of Meal Service	3	4
Home Economics 115	Clothing	3	..
Psychology 201-241	General: Mental Hygiene	3	3
Economics 218	Consumer Economics	..	3
Political Science 105-106	Comparative Government	2	2
Science (choice of Mathematics, Chemistry, Zoology, Botany)		3	..
Physical Education 261-262	Sophomore Activities (Swimming, Bowling, Tennis, etc.)	½	½
Electives		2	..
Elective	English	..	2
	Other	..	2
		16½	16½

Junior Year		*1st Sem.*	*2d Sem.*
Home Economics 367-486	Family Clothing Problems: Home Management	3	3
Home Economics 253	Care of Family Health	3	--
Political Science 301-302	Constitutions of the United States and Nevada	1	1
Sociology 379-380	Race Problems: The Family	2	2
Psychology 375	Marriage, Homemaking, and Divorce	--	2
Art 362	History of European Art	--	3
Music 304	Music of Today	--	2
Elective	English	2 or 3	--
	Other	4 or 3	2
		15	15

Senior Year			
Home Economics 475-476	Child Development	3	3
Home Economics 487-402	Home Decoration: Home Economics Seminar	3	2
Philosophy 462	Philosophy of Religion	--	2
Philosophy 482	Philosophy of Political Problems	--	2
Elective	English	3	--
	Other	7	7
		16	16

DESIRABLE ELECTIVES

Freshmen

Choose two credits: Art 101, 105; English 131, 141, 145, 171; Music 105, 106, 111, 112, 117, 118.

Sophomores

Choose six credits: English 231, 232, 247, 248, 253, 254, 261; Music 203, 204; Philosophy 222; Art 251, 257; Business 221, 222; Typing 243; Home Economics 116; Physical Education, individual sports or hygiene.

Juniors

Choose eight credits: English 335, 337, 345, 346, 355, 356; History 314; Music 313; Psychology 361; Art 362, 363; Business 353; Home Economics 366, 368; Physical Education, same activities as sophomores; Journalism 370.

Seniors

Choose seventeen credits: English 441; Psychology 405; Home Economics 488, 499; History 403, Journalism 370.

GRADUATE STUDY

Opportunity for Graduate Work

The University offers graduate work leading to the following advanced degrees: Master of Arts, Master of Science, and certain professional degrees in the College of Engineering. Most of the departments in the College of Arts and Science will accept candidates for the master's degree. Specialization in any department, however, will be limited to the specialties of the department staff.

Professional engineering degrees are given on satisfactory completion of certain professional work and a thesis as described later in the section *Engineering Degrees.*

Although, in general, all work for the master's degree will be expected to be done in residence, certain departments, at their discretion, may allow a portion of the course work to be done at other recognized graduate schools. Whenever a student is accepted for graduate work leading to the master's degree, he may be assured that he will be given instruction of superior quality, and counseling that will be intimate and generous. Since the master's degrees are the only advanced degrees offered by the University, effort is made to keep the work exceptionally high in standard, and in value to the student. The candidate for the master's degree need not fear that he will be slighted in behalf of others seeking a doctor's degree, as no work is offered leading to the Ph.D. degree.

General Requirements for the Master's Degree

1. *Undergraduate Prerequisite.* Excepting the special case of senior undergraduates in residence at the University of Nevada (as presented in paragraph 8 of the section on General Regulations) no student will be accepted for graduate work unless he has earned the bachelor's degree from an accredited college or university.

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 in the department, and in no case may this prerequisite be less than the requirements for an undergraduate minor or its equivalent. If a student is deficient in undergraduate prerequisites he must make up such deficiencies. In case of uncertainty as to the

candidate's ability to undertake graduate work in the department, the head of the department may require the candidate to take a qualifying examination.

Every department reserves the right to determine what candidates it will accept for graduate work.

2. *Residence Requirements.* A thesis and a total of 24 semester hours in graduate courses (for definition see section entitled *Graduate Courses*) are required in residence at the University of Nevada or, by special arrangement, at other approved institutions, as follows:

I. For graduates of the University of Nevada: 12 semester hours of graduate courses may be done in other accredited institutions, and be accepted toward the degree when such courses have been approved in advance by the major or minor department.

II. For graduates of other institutions: 8 semester hours of graduate courses in other institutions may be accepted under the conditions specified above.

3. *Requirements for Major and Minor.* The candidate for the master's degree must select the department in which he wishes to do his major concentration and also a department for a minor field. A minimum of 12 of the 24 graduate hours is required for the major and of 6 hours for the minor. Subject to the approval of the graduate committee more than the minimum may be required for either the major or the minor as conditions may require. Whatever number of the 24 hours is not required for the major and minor may be elected by the student in any department; they will normally be chosen to support the candidate's thesis.

Students should not enroll in any course for graduate credit without first securing the approval of the department head that such courses are acceptable toward a major or a minor. Not any six or twelve hours may be chosen, but only such as combine to make the design that the student may or should have in mind.

It should be emphasized, however, that, although there are these certain formal requirements expressed in a specified number of hours, the student should not think of graduate work as primarily the completion of a number of required courses. These courses are intended to give the student a comprehensive understanding of his whole major field and of some segment of his minor field. This understanding will be checked in the final oral examination.

4. *The Thesis.* Graduate work is intended to prepare the student in search of truth as yet undiscovered. The master's degree at the University of Nevada is designed to lay the foundation for further graduate study and research. This objective of

graduate study is sought in the thesis requirement.

As the thesis is considered the most distinctive characteristic of the master's degree, great importance is assigned to it in determining the eligibility of the candidate for the degree. Generally the thesis should demonstrate the ability of the student to select and delimit a specific problem or topic, to assemble the pertinent and necessary data, to make some original research or contribution, to organize ideas and data acceptably, and to prepare a written report in clear and effective English.

As the thesis usually requires close and constant supervision by the director in charge, the candidate should plan to develop the thesis while in residence. It is almost impossible to make satisfactory progress on the thesis wholly or largely in absentia. The candidate should not expect therefore to carry a full load of graduate courses in residence and do the thesis away from the campus. When considerable progress has been made while in residence in collecting data and in outlining the thesis, the candidate may be permitted to attempt the completion of the thesis away from the campus, under such arrangements as the supervisor of the thesis may specify.

Other general regulations concerning the thesis are described later.

5. *Credits for the Thesis.* When the candidate has been recommended by the Graduate Committee and approved by the Faculty for the master's degree, six credits will be recorded on his official scholarship record for the work completed on the thesis.

6. *The Final, Oral, Examination.* Not later than three weeks before the date of the Commencement at which the degree is to be conferred, a final examination will be held. This examination is usually oral, though it may be written, and is conducted by a committee of five, appointed by the graduate committee. In the examination the student should be able to demonstrate a comprehensive understanding of a broad field, and a somewhat more detailed understanding of a more limited field. The examination may cover also the contents of the thesis, and facts, principles, or theories related to or suggested by the thesis.

Procedure for Becoming a Candidate for the Master's Degree

1. *Submission of Undergraduate Transcript.* Graduates of recognized colleges or universities who desire to become candidates for the master's degree at the University of Nevada should submit to the chairman of the Graduate Committee, considerably in advance of the registration date, an official transcript of his complete undergraduate record with official evidence that the bachelor's degree has been conferred.

2. *Application for Candidacy.* Before registering for any graduate course the candidate should receive from the chairman of the Graduate Committee an application blank for admission to candidacy, and, in consultation with his major and minor professors, should indicate upon the blank the general program of studies that he is to pursue. The blank should be returned to the Graduate Committee before registration is begun.

3. *Registration.* At the date of registration, the graduate student whose application has been approved by the departments concerned and by the Graduate Committee, will (a) secure his registration coupons from the Registrar, (b) secure the signature of the professor for each course in which he wishes to enroll,* (c) secure the signature of the chairman of the Graduate Committee, (d) make out his class cards, (e) present the registration card to the Registrar for computation of fees to be paid, and (f) present the card to the Comptroller and pay the fees.

Graduate Courses

Graduate courses consist of those numbered 500 and above, and of such courses numbered 300 to 500 as the department concerned may accept for graduate credit. To be acceptable for graduate credit such courses will require such additional and individual work as the instructor may deem necessary to demonstrate ability on the part of the student to do independent study and thinking. No such course will be acceptable for graduate credit if the student has already received undergraduate credit in it. The thesis, or a course offered in the thesis, is not counted as part of the 24 hours required for the degree.

Fees

Graduate students are subject to the payment of the following fees:

1. Matriculation Fee—Every student is required to pay a matriculation fee of $5 upon the occasion of his first registration in the University. This fee is payable only once.

2. Registration and Incidental Fees—A registration fee of $7.50, an incidental fee of $5, and a library fee of $2.50 is payable each semester by every student enrolled for more than 5 credit hours.

3. Laboratory and Course Fees—A considerable number of courses, especially the laboratory courses, carry specific fees to pay for supplies or for other extras; these fees vary with the

*Graduate students must be certain that the course carries graduate credit.

nature of the course, and may be ascertained from the department head or the Registrar. Fees for courses, other than science, as history, English, foreign languages, etc., are unusual.

4. Diploma Fee—A fee of $6 is charged to cover the cost of the diploma. If the student does not desire to buy the master's hood, it is possible to rent one for the Commencement ceremony through the University library for a nominal fee.

5. Nonresident Tuition Fee—Students who are not residents of the State of Nevada must pay a tuition fee of $100 each semester.

6. Summer Session Fees—A fee for each summer session of five weeks is payable by every student enrolled.

7. Student Union and Health Fees—Graduate students are not required to pay the A. S. U. N. semester fee of $13 and the health service fee of $6 per semester, but they may avail themselves of the services provided upon payment of the fees.

Thesis Regulations

a. Date of Submission—The thesis must be completed in typed form, unbound, for submission to the examining committee not later than four weeks before the date of the Commencement at which the degree is to be conferred; this date precedes the final examination by one week. A copy of the thesis should be provided for each of the five members of the examining committee.

b. Format and Binding—The thesis should be typed on a good quality of bond paper, 8½ x 11 inches, with ample margin on the left to permit binding. Matters of form respecting capitalization, abbreviations, quotations, footnotes, bibliography, etc., should conform with the best usage as set forth in standard manuals on research writing; on all such items the practice should be consistent throughout the thesis. A sample of the formal title page may be secured from the chairman of the Graduate Committee.

When the thesis has been approved by the examining committee at least three copies should be bound in accord with specifications prepared by the Graduate Committee.

c. Copies for Deposit—Three bound copies of the thesis must be submitted to the Graduate Committee; not all these copies need be the first impression, but, if carbon copies are included, they should be distinct and easily legible. Two copies will be deposited in the University library and one copy will be retained by the major department. Majors in the Education Department may submit an additional copy to be forwarded to the U. S. Office of Education, Washington, D. C., to be deposited there for cataloguing and for inter-library loan purposes.

The Examining Committee

The examining committee which passes upon the thesis and conducts the final examination consists of five members of the faculty: a representative of the major department, a representative of the minor department, a member of the Graduate Committee, some member to represent the faculty at large, and the professor directing the thesis.

Whenever the decision of the examining committee is not unanimously favorable on either the examination or the thesis, it shall be the responsibility of the Graduate Committee to give consideration to the merits of the case and to make final determination.

General Regulations

1. Graduate credit will not be allowed in any course in which the grade received is less than B.

2. A candidate will not be recommended to the faculty for the master's degree unless he has been approved by the examining committee both on the thesis and on the final oral examination.

3. No graduate student may register for more than fourteen hours of graduate work in any semester, nor for more than six in any five weeks summer session. Candidates should not plan to enroll for the maximum hours in every session as this will prevent the necessary time for work on the thesis.

4. All the requirements for the master's degree must be satisfied within the period of five calendar years immediately preceding the granting of the degree.

5. The head of the major or minor departments may require a reading knowledge of a foreign language (usually French or German).

6. Correspondence and extension courses will not be accepted for credit towards the master's degree.

7. Candidates for the master's degree may not at the same time be candidates for any other degree.

8. Undergraduates at the University of Nevada 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.

9. Members of the University staff who are employed on full-time salary may not register for more than 6 credits during one semester.

10. Veterans must carry a minimum number of 9 hours of graduate work to be eligible for full veterans' benefits. Veterans actually carrying on their thesis preparation while in residence may register for as many hours of thesis credit, to a maximum total of six for all semesters, as the chairman of the major depart-

ment may approve; it must be understood that such thesis hours can not be included in the 24 hours of required graduate course work, and that final credit for such registered hours will not be officially recorded until the candidate has been approved by the Faculty for the master's degree.

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 $6.

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 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.

Course Offerings

Music
Philosophy
Physical Education
Men
Women
Physics
Political Science (See History and Political Science)
Portuguese (See Foreign Languages)
Poultry Husbandry (See Animal Husbandry)
Psychology
Spanish (See Foreign Languages)
Sociology (See Economics, Business, and Sociology)
Soils (See Agronomy)
Speech (See English)
Zoology (See Biology)

Course Numbers

The numbers prefixed to courses ordinarily denote the classes of students for whom the work is primarily intended. The following rules apply:

1. The capital letters, A, B, C, etc., designate noncredit courses.
2. The numbers 101-299 designate lower-division courses.
The numbers 101-199 are used for courses *primarily* for freshmen. Usually, beginning courses in all subjects are designated 101, 102, etc.
The numbers 201-299 are used for courses *primarily* for sophomores.
3. The numbers 301-499 designate upper-division courses.
4. The numbers 501-599 designate courses *primarily* for graduate students, but to which juniors or seniors of superior scholastic standing may be admitted upon approval of the instructor and department chairman concerned.
5. For courses extending beyond one semester, an odd number designates the first part of the course.
6. When the same course may be repeated for credit, successive terms of the course may be designated by the small letters *a*, *b*, *c*, etc., following the course number.
7. Numbers joined by a hyphen (101-102, 315-316, etc.), indicate that the course extends throughout the year.

Agricultural Economics

Professor Wittwer (Chairman of Department), Professor Titus.

201. Principles of Economics with Applications to Agriculture. An introduction to the economics of production, value and exchange, money and credit, business cycles, international trade, distribution of wealth, labor, transportation, agricultural credit, marketing and public finance with special emphasis on their application to agriculture.
Prerequisite: Sophomore standing. *First semester. Three credits.* Wittwer.

202. Principles of Economics with Applications to Agriculture. A continuation of 201.
Second semester. Three credits. Wittwer.

245. Farm Accounting. A study of various survey forms and types of record books. Actual farm records will be used

and the various factors which make for successful farming criticized and studied.

First semester. Three credits. Titus.

352. AGRICULTURAL ECONOMIC POLICY. A study of economic policy and practice in connection with such problems as farm tenancy and ownership, taxation, tariff, foreign trade, insurance, farm labor, production, and price control.

Prerequisite: Agricultural Economics 201 and 202. *Second semester. Three credits.* Wittwer.

355. AGRICULTURAL 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. Wittwer.

356. 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 and rents.

Prerequisite: Agricultural Economics 201 and 202. *Second semester. Two credits.* Wittwer.

357. MARKETING OF AGRICULTURAL PRODUCTS. A study of the organization, functions and operations of the market structure and of marketing enterprises with special reference to the distribution of agricultural products.

Junior year. First semester. Three credits. Wittwer.

364. COOPERATIVE ORGANIZATIONS. A study of the development of cooperation in agriculture in the United States and foreign countries. Analysis of principles and problems peculiar to cooperative associations. The organization, financing and management of different types of cooperative marketing and purchasing associations.

Junior year. Second semester. Two credits. Wittwer.

465. AGRICULTURAL PRICES. A study of prices of farm products in relation to agricultural and industrial conditions. Factors determining prices. Price trends. Adjustment of production to price changes. Price stabilization. Prices and market grades. Price policies. Market quotations.

Senior year. First semester. Three credits. Wittwer.

471. CURRENT ECONOMIC PROBLEMS OF AGRICULTURE. Business cycles and trends, foreign trade, taxation, farm labor problems, and other topics of special interest will be studied in their relation to agriculture.

Prerequisite: Agricultural Economics 201 and 202 or consent of instructor. *First semester. Two credits.* Wittwer.

476. FARM MANAGEMENT. The relation of capital and labor to farm management; the general management of implements and equipment; ownership versus rental of land; the choice of a farm; systems of farming; farming compared with other lines of business; marketing problems; and management of fields; crops and manures.

Prerequisites: Senior standing. *Second semester. Three credits.* Wittwer.

484. RESEARCH AND EXTENSION ORGANIZATION AND METHODS. A study of extension and research organization and methods, with emphasis on economics and marketing problems. Project planning, methods of collecting information, organizing data, preparing and presenting reports will be emphasized.

Prerequisites: Junior standing or consent of instructor. *Second semester. Three credits.* Wittwer.

598–599. THESIS COURSE IN AGRICULTURAL ECONOMICS.

Either semester. Credit to be arranged. Wittwer.

AGRONOMY

Professor TITUS (Chairman of Department); Associate Professors DUNN, ROBERTSON.

Crops and Range Management

201. FIELD CROPS. A study of cereal, root, tuber, fiber, and stimulant crops; their classification, distribution, improvement, culture, harvesting, storage, and marketing. Identification of crop plants and seeds.

Prerequisite: Botany 103. *First semester. Two lectures; one laboratory period. Three credits.* Fee $2. Robertson.

202. FORAGE CROPS. The establishment and utilization of annual and perennial forage crops; the conservation of native and tame meadows and pastures, with special emphasis on alfalfa and wild hay. Laboratory study of the botanical characteristics and wild hay. Laboratory study of the botanical characteristics of forage plants.

Prerequisite: Botany 103. *Second semester. Two lectures; one laboratory period. Three credits.* Fee $2. Robertson.

346. WEEDS AND WEED CONTROL. Recognition of noxious and common competitive and poisonous weeds, their biological and economic effects on crops and livestock. Practice in methods of control on University farm.

Prerequisites: Chemistry 242, Agronomy 202. Botany 222 or 355. *Second semester. Two lectures; one laboratory period. Three credits.* Fee $5. Robertson.

355. CROP ECOLOGY. Adaptation and environment of crop plants. A study of these aspects of the social, and ecological environments which influence the production and determine the distribution of field crops.

Prerequisites: Botany 355, or concurrent. Agronomy 201 or 202 and 216. *First semester.* Given in alternate years. *Three lectures. Three credits.* Robertson.

359, 360. PRINCIPLES OF RANGE AND PASTURE MANAGEMENT. A basic course in the management of pastures and ranges with emphasis on native forage plants. Also the development and scope of the grazing industry, field recognition of important range plants, indicators of range and pasture condition, utilization standards.

Prerequisite: Agronomy 216, Botany 222 or 355. *Two lectures; one laboratory period.* Four or five field trips each semester. *Three credits each semester.* Fee $5. Robertson.

367. CEREAL CROP LITERATURE. Five hours reading of selected original papers, classic and current. One hour weekly for discussion and reports.

First semester. No lectures. Meeting time arranged. Given in alternate years. *One or two credits.* Robertson.

401. CROP STANDARDS. Standards of excellence for field crops. Crop inspection. Crop display. Practice in crop judging and grading.

Prerequisites: Agronomy 201 and 202. *First semester.* Given in alternate years. *One lecture; one laboratory period. Two credits.* Fee $3. Robertson.

456. CROP IMPROVEMENT. Application of genetics to the problems of crop improvement. Heredity and variation in crop plants. Principles and results of selection and hybridization in the improvement of crops. Demonstrations.

Prerequisites: Junior standing. Zoology 350. *Second semester.* Given in alternate years. *Three lectures. Three credits.* Dunn.

457. EXPERIMENTAL METHODS IN AGRONOMIC RESEARCH. Principles and methods of field experimentation. Interpretation of results. Application of statistical methods.

Prerequisites: Junior standing. Mathematics 220 or consent of instructor. *First semester. Three lectures. Three credits.* Dunn.

364. RANGE AND PASTURE FIELD TRIP. A one-week excursion through Nevada to study range and pasture problems and practices. Only transportation furnished. June 5–11, following sophomore or junior year.

Prerequisites: Agronomy 202 and Botany 222. *One or two credits.* Fee $10. Robertson.

468. ADVANCED RANGE MANAGEMENT. Administration and management of range land, range surveying and management planning, technique of range research.

Prerequisites: Botany 222 and 355, Zoology 337, Agronomy 359 and 360. *Second semester. Two lectures; one laboratory period. Three credits.* Fee $5. Robertson.

469. Pasture and Forage Crop Literature. Five hours reading of selected original papers, classic and current. One hour weekly for discussion and reports.

First semester. No lectures. Meeting time arranged. Given in alternate years. *One or two credits.* Robertson.

513a. Thesis Course in Agronomy.

Either semester. Credit to be arranged. Robertson.

Soils

216. Soils. Nature and properties of soils. Soil and plant relations. Soil colloids, soil reaction and alkali; soil organisms and organic matter; soil moisture. Origin, development and classification of soils.

Prerequisites: Chemistry 102. *Second semester. Two lectures, one laboratory period. Three credits.* Fee $3. Dunn.

315. Soil Genesis, Classification and Survey. The formation and classification of soils. Classification of soils on the basis of capability or efficient use. The distribution, chemical and physical properties and uses of the major soil groups. Soil survey.

Prerequisites: Junior standing. *First semester.* Given in alternate years. *Two lectures; one laboratory period. Three credits.* Fee $3. Dunn.

316. Soil Conservation. The soil as a natural resource. A study of the nature of soil erosion and of factors influencing soil erosion and water loss. Methods and farm practices for soil and water conservation. The program and work of federal and State organizations which aid in soil conservation. Soil capability and practical soil tests, land use, and farm plans. Field trips.

Prerequisites: Junior standing. *Second semester. Two lectures; one laboratory period. Three credits.* Given in alternate years. Fee $3. Dunn.

317. Soil Fertility. Requirements for the production of field crops. Concepts of soil fertility and productivity. Soil organisms and organic matter. A study of the various plant nutrients as applied to soils. Maintenance of soil fertility. Fertilizer materials demonstrations.

Prerequisites: Soils 216. *First semester. Three lectures. Three credits.* Fee $3. Dunn.

318. Soil Analysis. Laboratory methods for the determination of total and available plant nutrients and other constituents in soils.

Prerequisites: Junior standing. Chemistry 231. *First semester. Two*

laboratory periods. Two credits. Given in alternate years. Fee $6. Dunn.

415. SOIL PHYSICS. Characteristics of soils and soil colloids. Soil, air, moisture, temperature and structure. The effects of mulches, tillage, fertilizers and other chemicals, and various cropping practices upon physical properties of soils.

Prerequisites: Junior standing. *First semester. Two lectures; one laboratory period.* Given in alternate years. *Three credits.* Fee $3. Dunn.

417. SOIL MANAGEMENT. An advanced course in soil fertility and management.

Prerequisites: Agronomy 317. *Either semester. Three lectures. Three credits.* Dunn.

471a. SOILS SEMINAR. Presentation and discussion of articles taken from the literature in soils research.

Prerequisites: Junior standing. *Either semester. One credit.* Dunn.

473a. SPECIAL PROBLEMS IN SOILS.

Either semester. Credit to be arranged. Dunn.

523a. THESIS COURSE IN SOILS.

Either semester. Credit to be arranged. Dunn.

Farm Mechanics

211. FORGING. Instruction and laboratory practice in the heating, bending, shaping, and welding of mild steel. Forging and tempering of tool steel; general forging.

First semester. Two credits. Fee $5. Titus.

220. GENERAL MECHANICS. Tool sharpening and fitting, saw filing, ropework, blocks and tackle, belts, pulleys, pipe fitting, soldering, sheetmetal work, threading, taps and dies, abrasives.

Second semester. Two laboratory periods. Two credits. Fee $5. Titus.

312. WELDING. Instruction and practice in acetylene and arc welding as related to farm and ranch; with particular application to the common metals, iron, steel, cast iron, aluminum, etc. Practice in brazing, low temperature welding, and hard facing.

Prerequisite: Farm Mechanics 211. *Second semester. One lecture, one laboratory. Two credits.* Fee $7.50. Titus.

332. FARM MACHINERY AND EQUIPMENT. A study of the construction, operation, care, and repair of farm machinery and equipment.

Second semester. One lecture, one laboratory. Two credits. Fee $5. Titus.

335. ADVANCED AGRICULTURAL MECHANICS. A continuation course in general mechanics covering pumps and their operation,

domestic water supply, sewage, refrigeration, electrical equipment and appliances on the farm and in the home.

Prerequisite: Farm Mechanics 220. *First semester. One lecture, one laboratory. Two credits.* Fee $5. Titus.

341. Farm Structures. Building materials and their use, concrete masonry, farming construction, elementary drafting, blueprint reading, cost estimating, lighting, heating, ventilation, painting.

First semester. One lecture, one laboratory. Two credits. Fee $5. Titus.

353. Gas Engines and Tractors. The development, principles of operation, care, and repair of farm gas engines and farm tractors. Demonstrations and practice in the operation of farm tractors will be given whenever practicable.

First semester. Two credits. Fee $5. Titus.

356. Irrigation and Irrigation Structures. A course designed to acquaint the student with the needs of irrigation and the mechanics of getting irrigation water onto the land. Measurements of water, sources of water supply, preparation of land, methods of irrigation, irrigation structures, water law, drainage.

Second semester. Two lectures, one laboratory. Three credits. Fee $5. Titus.

485. Methods of Teaching Farm Mechanics. A course designed for students preparing to meet the qualifications of agriculture and farm mechanics instructors in high schools. The organization and administration of a farm mechanics course, including objectives, course content, lesson planning, and teaching methods.

First semester. Two credits. Titus.

Animal Husbandry

Professors Scott, Sheets (Chairman of Department), Wilson[1]; Mr. Vawter, Mr. Walker.

101. Breeds of Livestock. The origin, development, characteristics, and uses of types and breeds of range and ranch animals. For illustration, the animals owned by the department and livestock ranches in the vicinity will be used, also lantern slides of typical animals of the various types and breeds.

First semester. Three credits. Sheets.

203. Livestock Judging. Practice in judging livestock to gain familiarity with the points of excellence in the various breeds and types of range and ranch animals.

Prerequisite: Animal Husbandry 101. *First semester. Lectures, two hours; laboratory, two periods. Four credits.* Fee $10. Sheets.

[1]Deceased, 1948.

253. 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.

Prerequisites: Animal Husbandry 101 and 203. *First semester. One credit.* Sheets.

301. ANATOMY AND PHYSIOLOGY OF FARM ANIMALS. A lecture course designed for students majoring in animal husbandry, dairy science or range management. Dealing with the anatomical structures and physiology of farm animals.

Prerequisite: Animal Husbandry 330. *First semester. Three credits.* Yawter.

302. DISEASES OF FARM ANIMALS AND POULTRY. A lecture course dealing with the infections, contagious and nutritional diseases, and parasitisms common to this region or of world-wide importance with methods of control and livestock sanitary regulations.

Prerequisite: Animal Husbandry 301. *Second semester. Two credits.* Yawter.

330. LIVESTOCK FEEDING. The principles underlying and problems connected with the feeding of range and ranch animals.

Prerequisites: Animal Husbandry 101 and 203. *Second semester. Lectures, three hours. Three credits.* Sheets.

352. 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 ranch and range animals, studied with special reference to their application to breeding of range animals.

Prerequisite: Zoology 103. *Second semester. Lectures, three hours. Three credits.* Sheets.

356. ADVANCED STOCK JUDGING. Comparative scoring and judging. The judging of animals in classes, as at fairs and stock shows.

Prerequisite: Animal Husbandry 203. *First semester. Three credits.* Fee $5. Sheets.

358. RANGE LIVESTOCK 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 in foreign countries; general range problems.

Prerequisites: Animal Husbandry 101, 203, 330; Botany 222. *First semester. Two credits.* Staff.

363–364. ANIMAL HUSBANDRY LITERATURE. A seminar course designed to help the student become familiar with the various sources of livestock information as well as to afford him practice in presenting such information for discussion.

Prerequisite: Junior standing. *Both semesters. Two credits each semester.* The course may be repeated in the senior year for the same credit. Graduate credit given with consent of instructor.

455. ADVANCED LIVESTOCK FEEDING. Continuation of animal husbandry 330.

Prerequisite: Animal Husbandry 330. *First semester. Lectures, three hours. Three credits.* Sheets.

459. PROFESSIONAL JUDGING.

First semester. Laboratory, one period. One credit. Fee $5. Staff.

461–462. ANIMAL HUSBANDRY. Thesis course. Special problems in animal production and management. Problems relative to the open range under the provisions of the Taylor Grazing Act.

Prerequisites: Animal Husbandry 101, 203, 330, 352, 358, 455. This course may be taken with Course 358. *Both semesters. Four to six credits.* Fee $3. Staff.

466. LIVESTOCK MANAGEMENT. A study of the problems confronting the ranch and range; calculating profits under various conditions; systematic keeping of records of livestock operations; selection of animals for the feed yard, show ring, market, and butcher.

Prerequisites: Animal Husbandry 101, 203, 330. *Second semester. Three credits.* Sheets.

Dairy Husbandry

102. ELEMENTS OF DAIRY HUSBANDRY. 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 husbandry of dairy products.

Second semester. Lectures, two hours; laboratory, one period. Three credits. Fee $5. Scott.

103. ORIENTATION IN AGRICULTURE. A course designed to acquaint the student with the history, functions, and services

of the different divisions of the College of Agriculture, with the different State and Federal agencies serving agriculture in this State, and with the various fields of instruction in the College of Agriculture.

Freshman year. First semester. One credit. Agricultural Staff.

352. 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 102. *Second semester. Lectures, two hours; laboratory, one period. Three credits.* Fee $5. Scott.

354. DAIRY MANUFACTURING. 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, sherbet, ices, lacto.

Prerequisite: Dairying 102. *Second semester. Lecture, one hour; laboratory, two periods. Three credits.* Fee $10. (This course will not be given unless elected by five or more students.) Scott.

355. 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 102 and Zoology 103. *First semester. Lecture one hour. Laboratory, one period. Two credits.* Fee $5. Scott.

451. PROFESSIONAL JUDGING OF DAIRY CATTLE.
First semester. One credit. Fee $5. Walker.

457. ADVANCED MILK PRODUCTION. Use of dairy herd books; special feeding for higher records; interpretation of official tests.

Prerequisite: Dairying 102. *First semester. Lectures, two hours. Two credits.* Scott.

461–462. SEMINAR. 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 102 and 352 or 355. *Either semester. Two to six credits.* Fee $3. Scott.

Poultry Husbandry

101. FARM POULTRY MANAGEMENT. Raising poultry under farm conditions. This course deals with the housing, raising of poultry, handling of stock for the market, and egg production, killing, dressing, diseases, hatching, and rearing of young chicks. Trips to local poultry farms. It is taught with special reference to farm conditions.

First semester. Two lectures, one laboratory. Three credits. Fee $5. Scott.

108. TURKEY PRODUCTION AND MANAGEMENT. This course deals with the practical management of turkeys, primarily for meat production.

Second semester. Three credits. Fee $5. Scott.

ART

Assistant Professor SHEPPARD (Chairman of Department); Mrs. JOSLIN.

A total laboratory fee of $10 per course will be charged to all visitors.

101–102. ELEMENTARY FREEHAND DRAWING. Principles of drawing, values and perspective, taught in the freehand drawing of models and still life in monochrome. Also rapid figure sketching in several art media.

Two credits each semester. Fee $3. Joslin.

103. MODERN TRENDS IN ART EDUCATION. Techniques of handling art media—finger paint, clay, easel paint, chalk, watercolor, etc. Planned especially for elementary school teachers who wish to use new methods in art teaching.

Two credits. Fee $4. Joslin.

105. DESIGN. Problems in using natural and historic motifs in both two and three dimensional design. Laboratory practice in the creative use of design, color, theory, and their application to crafts, architecture, and industry.

Two credits. Fee $3. Sheppard.

107. FREEHAND DRAWING. *Designed for Engineers.*

First semester only. One credit. Fee $3. Sheppard.

115. ART APPRECIATION. Lecture and slides; course to illustrate the place of art in social and cultural life, past and present. Planned to give an intelligent appreciation of the visual arts by logical analysis and criticism of painting, sculpture, and architecture.

Either semester. Two credits. Fee $3. Sheppard.

121. FREEHAND DRAWING. Evening Class. Sketching from models and still life.

Either semester. One credit. Fee $3. Sheppard.

251–252. WATERCOLOR PAINTING. The technique and handling of watercolor in still life and landscape.

Three credits each semester. Fee $3. This course may be repeated for credit as Art 351-352. Joslin.

253–254. ADVANCED FREEHAND DRAWING. Drawing from models and still life in several media, charcoal, conti, chalk, etc. A preparation for work in portrait and life classes. Also rapid figure sketching in different media.

Three credits each semester. Fee $3. This course may be repeated for credit as Art 353-354. Joslin.

257–258. OIL PAINTING. The technique and handling of oil colors in still life, portrait, figure, and landscape.

Three credits each semester. Fee $3. This course may be repeated for credit as Art 357-358. Sheppard.

261. HISTORY OF ANCIENT AND CLASSICAL ART. Lecture and slides. The study of the related arts—painting, sculpture, and architecture from prehistoric man through Egypt, Babylon, Assyria, Crete, Greek and Roman periods.

Three credits. Fee $3. Staff.

355–356. COMMERCIAL ART. Lecture and laboratory. Practical modern methods of reproduction used in commercial art. Poster, illustration, bill board, and magazine advertisements. Problems in color and black and white, in various media: wash, pen and ink, show card, air brush, etc. Class is handled as much like an advertising agency as possible to give students actual working problems.

Prerequisites: Art 101-102-251-252. *Three credits each semester.* Fee $3. Sheppard.

359–360. ART STRUCTURE AND PICTORIAL COMPOSITION. Lecture and laboratory course in creative structure and graphic expression. An analytical approach to composition created through movement, color, techniques, theories, and methods.

Two credits each semester. Fee $3. To be arranged. Staff.

362. HISTORY OF EUROPEAN ART. Lecture and slides. The study of the related arts, painting, sculpture, and architecture of Europe from the Renaissance to the Moderns.

Three credits. Fee $3. Staff.

363–364. CLAY MODELING. An exploratory course in three dimensional form. Portrait, figure, and animals from life. Problems in the composition and design of form. Casting methods. To be arranged.

Three credits each semester. Fee $5. Sheppard.

Biology

Associate Professors Billings, Lowrance (Chairman of Department); Assistant Professors LaRivers, Richardson; Mr. Cooney.

Requirements for Fields of Concentration in Biology

1. Biology: *Major-interest subject* (36 credits)—Botany 103 (3 credits), 203, (4 credits), 495 or 496 (1 credit), and at least 8 additional credits in botany of which at least 4 must be in courses numbered above 300. Zoology 103 (4 credits), 209 (5 credits), 350 (2 credits), and 9 additional credits in zoology of which at least 4 credits must be in courses numbered above 300. *Related Subjects* (14 credits)—Chemistry 101 (4 credits), 102, 242 (6 credits), and at least 4 additional credits to be assigned by adviser.

2. Botany: *Major-interest subject* (33 credits)—Botany 103 (3 credits), 203. (4 credits), 222 (4 credits), 231 (3 credits), 355 (4 credits), 495-496 (2 credits), and at least 13 additional credits in botany. *Related Subjects* (17 credits)—Chemistry 101 (4 credits), 102 (2 credits), 242 (4 credits), Zoology 103 (4 credits), 350 (2 credits), and one credit to be assigned by adviser.

3. Zoology: *Major-interest subject* (33 credits)—Zoology 103 (4 credits), 209 (5 credits), 259 (4 credits), 346 (5 credits), 350 (2 credits), 364 (4 credits) and at least 9 additional credits in zoology. *Related Subjects* (17 credits)—Botany 103 (3 credits); Chemistry 101, 102, 242 (10 credits); and four credits to be assigned by adviser.

Students planning to take a preforestry course should consult the Chairman of the Department of Biology.

Students selecting a field of concentration in biology who wish to qualify for a secondary teachers' certificate should consult the School of Education (see pp. 157–162) concerning requirements.

103. General Botany. An introduction to the classification, structure, and physiology of the flowering plants.

Either semester. Two lectures; one laboratory period. Three credits. Fee $4. Billings and Staff.

203. Cryptogamic Botany. The nonflowering plants as illustrated by representative types from the algae, fungi, mosses, and ferns. Representative gymnosperms also may be studied if time permits.

Second semester. Two lectures; two laboratory periods. Four credits. Fee $4.

222. 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.

Prerequisite: Botany 103. *Second semester. Two lectures; two laboratory periods. Four credits.* Fee $1. Billings.

231. The Structure and Development of the Seed Plants. A detailed study of their morphology and histology in relation to function.

First semester. One lecture; two laboratory periods. Three credits. Fee $4.

315. DENDROLOGY. The intensive study of the taxonomy, silvics, and practical identification of the important North American forest trees.

Prerequisite: Botany 222. *Second semester. One lecture; two laboratory periods. Three credits.* Fee $2. Alternates with Botany 317. Billings.

317. RANGE AGROSTOLOGY. The study of grasses, and practice in identification. Particular emphasis is given to range grasses.

Prerequisite: Botany 222. *Second semester. One lecture; two laboratory periods. Three credits.* Fee $2. Alternates with Botany 315. Billings.

351. GENERAL BACTERIOLOGY. A course of lectures and laboratory exercises on the morphology and life processes of the bacteria, with some reference to allied organisms. Microorganisms to soil fertility, dairy products, water purity, sewage, and the production of disease will be considered.

Prerequisite: Zoology 103 or Botany 203. *First semester. Lectures, two hours; laboratory, two periods. Four credits.* Fee $5. Lowrance.

355. PLANT PHYSIOLOGY. Intensive study of the basis physiological processes in plants: photosynthesis, digestion, respiration, absorption, transpiration, nitrogen metabolism, mineral deficiencies, growth-promoting and growth-inhibiting substances.

Prerequisite: Botany 103 and 1 year of chemistry. *First semester. Three lectures; one laboratory period. Four credits.* Fee $4. Billings.

364. MYCOLOGY AND AN INTRODUCTION TO PLANT PATHOLOGY. The study of fungi and bacteria. Diseases of economic plants, their causes, identification and control.

Prerequisite: Botany 103 and preferably Botany 222. *First semester. Two lectures; two laboratory periods. Four credits.* Fee $4.

370. MICROTECHNIQUE. The preparation of materials and permanent slides of plants and animal tissues for microscopic study.

Prerequisite: Junior standing and at least six credits in biology. *Second semester, one lecture and a minimum of two laboratory periods.* Fee $2 per laboratory credit.

375. WOOD TECHNOLOGY. The structure of economic woods with emphasis upon the identification of these woods by their physical properties and minute anatomy.

Prerequisite: Botany 231. *Second semester. One lecture; two laboratory periods. Three credits.* Fee $2.

475–476. PLANT ECOLOGY. The relationships between natural vegetation and the factors of the environment: light, temperature, moisture, wind, topography, soil, and biotic. Plant association types and vegetational succession. The use of indicator plants in recognizing overgrazing, soil conditions, and forest sites.

Prerequisite: Botany 222. *Both semesters. Four credits each semester. Three lectures; one laboratory period or field trip.* Fee $4 each semester. Billings.

491–492. BOTANICAL PROBLEMS. Special problems in some field of botany. Assigned readings and reports.

Prerequisite: The equivalent of two years of botany. *One to three credits each semester.* Student is limited to a total of eight credits in these in Botany 491-492. Billings and Staff.

495–496. BOTANICAL SEMINAR. The presentation by students of reviews and discussion of assigned reports of research in botanical literature.

Prerequisite: Nine hours of botany and consent of instructor. *One meeting per week. One or two credits each semester.* Billings and Staff

549–550. THESIS COURSE FOR GRADUATES.

Zoology

101. SURVEY OF ZOOLOGY. A course introducing the fields of zoology and emphasizing their application to human interests and welfare as in the subjects of functioning of the body, disease, medicine, evolution, and heredity. Designed for general students.

First semester. Lecture, two hours; laboratory, one period. Three credits. Fee $3. Richardson.

Zoology 101 and 103 cannot both be taken for credit.

103. GENERAL ZOOLOGY. An introductory course dealing with the general principles of animal biology and the evolution of animal structures and functions. The laboratory work consists of the study of the structure, activities, and habits of typical species representing the principal animal groups and chosen as far as possible from local types.

Second semester. Two lectures and two laboratory periods. Four credits. Fee $4. Richardson.

Zoology 101 and 103 cannot both be taken for credit.

209. COMPARATIVE ANATOMY OF VERTEBRATES. Lectures on the adult anatomy, embryology, and evolution of structural systems in back-boned animals. Laboratory dissection of the dog-fish, salamander, and a mammal.

Prerequisite: Zoology 103. *First semester. Lectures, three hours; laboratory, two periods. Five credits.* Fee $6. Richardson.

211. HUMAN ANATOMY. A course designed for prenursing and physical education students. Lectures on human anatomy. The laboratory includes demonstrations, a study of human anatomical preparations, and individual dissection of the cat or rabbit.

Prerequisite: Zoology 101 or 103. *First semester. Three lecture and two laboratory periods. Four credits.* Fee $6. Lowrance.

322. PARASITOLOGY. Introductory study of the relation of animals to the causation and transmission of disease.

Second semester. One lecture; one laboratory. Two credits. Fee $3. This course will be offered in alternate years only. LaRivers.

333. FISH AND REPTILES. A course especially designed for field workers, teachers, and naturalists. It includes a study of the classification, variety, habits, and economic importance of fish and reptiles. Regular field trips are taken for the careful identification and observation of local forms.

Prerequisite: Zoology 101 or 103. *Second semester. Lecture, two hours; laboratory, one period. Three credits.* Fee $2. La Rivers.

335. BIRDS. A course especially designed for field workers, teachers, and naturalists. Plan of study similar to Zoology 333.

Prerequisite: Zoology 101 or 103. *Second semester. Lecture, two hours; laboratory, one period. Three credits.* Fee $2. Alternates with Zoology 337. Richardson.

337. MAMMALS. A study especially of Nevada big game, fur bearers, and predatory mammals. Plan of study similar to Zoology 333.

Prerequisites: Zoology 101 or 103. *Second semester. Lecture, two hours; laboratory, one period. Three credits.* Fee $2. Alternates with Zoology 335. Richardson.

346. PHYSIOLOGY. Principles of animal physiology, with special reference to the human being. Zoology 101 or 103 and Chemistry 101 and 102 or 242 should precede this course.

Second semester. Lecture, three hours; laboratory, two periods. Five credits. Fee $5. Lowrance.

350. GENETICS. A study of the fundamental principles underlying the inheritance of structural and physiological characters in animals and plants.

Prerequisite: One semester of general botany or general zoology. *Second semester. Two lectures. Two credits.* Lowrance.

352. GENETICS LABORATORY. A laboratory course designed to accompany Zoology 350.

Prerequisite or Parallel: Zoology 350. One credit. Fee $3. Lowrance.

355. EVOLUTION. The study of organic evolution, the fields of evidence for it, and explanations of just how it has taken and may be taking place. Modern species concepts are considered.

Prerequisite: One year of college biology. *First semester. Two credits.* Given every other year. Richardson.

359. ELEMENTARY ENTOMOLOGY. An introduction to the principles of entomology: Life histories, morphology, physiology and classification of insects and a brief introduction to insect control. Each student will collect and identify insect specimens and will prepare field data.

Prerequisite: Zoology 101 or 103 or equivalent. *First semester. Two lectures; one laboratory. Three credits.* Fee $4. LaRivers.

364. 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.

Prerequisite: Zoology 103 and 209, or 346. *Second semester. Lectures, three hours; laboratory, two periods. Four credits.* Fee $3. Lowrance.

368. HISTOLOGY AND ORGANOLOGY. Study of elementary tissues, and the study of the development and structure of vertebrate organs.

Three lectures. Two credits. Lowrance.

420. AQUATIC ENTOMOLOGY. Designed to acquaint the advanced wildlife student with principles of limnology as applied to insects. Emphasis will be placed on the collection of aquatic insects and the relation of aquatic entomology to fisheries biology.

Prerequisites: Chemistry 101-102, Zoology 359. *Two lectures. One laboratory. Three credits.* Fee $5. LaRivers.

463. GAME MANAGEMENT. Conservation or regulated use as applied to game birds and mammals. Field trips and laboratory studies on observation and identification of western game species, and on application of management principles.

Prerequisite: Zoology 333, 335, 337, and Botany 222. *Second semester. Lecture, two hours; laboratory, one period. Three credits.* Given every other year. Fee $2. Richardson.

491–492. ADVANCED ZOOLOGY. Special zoological problems. Students specializing in zoology may select some problem for investigation under the direction of the instructor. Library reading, laboratory work, and reports.

Credits to be arranged. Student is limited to a total of eight credits in Zoology 491-492. Fee determined by type of work. Lowrance, Richardson, and LaRivers.

549–550. THESIS COURSE FOR GRADUATES.

BUSINESS

(See Economics, Business, and Sociology.)

CHEMISTRY

Professors DEMING, MOOSE (Chairman of Department), SEARS; Associate Professor WILLIAMS; Assistant Professor MORRIS; Mr. PANZER, Mr. SUTTON, Mrs. WILLIAMS.

REQUIREMENTS FOR FIELD OF CONCENTRATION IN CHEMISTRY

Major-interest subject (26 credits)—Chemistry 101, 102, 122 (9 credits; 231-232 (6 credits); 341-342 (8 credits); 352 (2 credits); and 487-488 (1 credit). *Related Subjects* (16 credits)—Mathematics 102, 110,

140 (8 credits); Physics 151-152, 153-154 (8 credits). *Additional credits*—8 additional credits in major-interest subject or related subjects to be chosen with the approval of the adviser.

Students selecting a field of concentration in chemistry who wish to qualify for a secondary teachers' certificate should consult the School of Education (see pp. 157–162) concerning requirements.

Requirements for the degree Bachelor of Science in Chemistry: See outline for course of study, pages 146, 147.

101. General Inorganic Chemistry. A lecture and laboratory course dealing with the fundamental principles of chemistry and the properties and uses of the common nonmetallic elements.

First semester. One lecture, two recitations, two two-hour laboratory periods. Four credits. Fee $8. Staff.

102. General Chemistry of the Metals. A lecture course dealing with the properties and uses of the common metals.

Prerequisite: Chemistry 101. *Second semester. Two lectures. Two credits.* Staff.

122. Qualitative Analysis. A lecture and laboratory course dealing with the principles and techniques of the semimicro method of systematic qualitative analysis.

Prerequisite: Must be taken concurrently with or following Chemistry 102. *Second semester. One lecture and two laboratory periods. Three credits.* Fee $8. Staff.

124. Qualitative Analysis. A lecture and laboratory course dealing with the principles and techniques of the macro method of systematic qualitative analysis.

Prerequisite: Must be taken concurrently with or following Chemistry 102. *Second semester. One lecture and one laboratory period. Two credits.* Fee $4. Staff.

231–232. Quantitative Analysis. A lecture and laboratory course dealing with the fundamental principles and techniques of accurate volumetric and gravimetric methods of analysis. Special emphasis placed on calculations needed for quantitative determinations.

Prerequisites: Chemistry 122 or 124. *One lecture and two laboratory periods. Three credits each semester.* Fee $8. Seim.

242. Introductory Organic Chemistry. A lecture and laboratory course designed to acquaint students with some of the fundamental principles of carbon chemistry.

Prerequisite: Must be taken concurrently with or following Chemistry 102. *Second semester. Two lectures and one laboratory period. Four credits.* Fee $4. Morris.

271. Physiological Chemistry. A lecture and laboratory course dealing primarily with the compounds of carbon that are essential to physiological processes.

Prerequisite: Chemistry 242. *First semester. Three lectures and two laboratory periods. Five credits.* Fee $8. Morris.

312. ADVANCED INORGANIC CHEMISTRY. A lecture and laboratory course dealing with some of the more difficult chemical reactions and laboratory techniques in the preparation of inorganic substances.

Prerequisite: Chemistry 333. *Second semester. One lecture and two laboratory periods. Three credits.* Graduate credit given with consent of instructor. Fee $8. Moose.

333. ADVANCED ANALYTICAL CHEMISTRY. A lecture and laboratory course designed to give the students a knowledge of some of the more difficult methods of analysis and a familiarity with instrumentation.

Prerequisite: Chemistry 232. *First semester. One lecture and two laboratory periods. Three credits.* Fee $8. Williams.

341–342. ORGANIC CHEMISTRY. A lecture and laboratory sequence dealing with the fundamental principles of the chemistry of carbon and carbon compounds.

Prerequisite: Chemistry 232. *Two lectures and two laboratory periods. Four credits each semester.* Fee $8. Morris.

352. INTRODUCTION TO PHYSICAL CHEMISTRY. A lecture course designed to illustrate the applications of physical methods to chemical problems. This course is designed for engineering and premedical students who desire an introductory course and chemistry students who feel that they need more preparation for Chemistry 451-452.

Prerequisite: Chemistry 232. *Second semester. Two lectures. Two credits.* Deming.

362. INDUSTRIAL CHEMICAL TECHNOLOGY. A lecture and recitation course dealing with industrial processes. A cross section of manufacturing processes, flow charts, energy and material balances.

Prerequisite: Chemistry 341. *Second semester. Two lectures. Two credits.* Moose.

391. SPECIAL PROBLEMS. A laboratory course designed to give the student training in a special field not covered in regularly scheduled courses. To be arranged by consultation with the chairman of the department.

Prerequisite: Chemistry 232. *Either semester. Two laboratory periods. Two credits.* Moose and Staff.

415. THE PERIODIC LAW. A lecture and seminar course dealing with the critical study of the periodic law and the more important periodic tables. Use is made of recent developments in atomic structure to correlate the properties of the elements.

Prerequisite: Three years of college chemistry. *First semester. Three lectures. Three credits.* Graduate credit given with consent of instructor. Williams.

443. QUALITATIVE ORGANIC ANALYSIS. A study of the methods available for the detection and identification of organic compounds.

Prerequisite: Chemistry 342. *First semester. Two lectures and two laboratory periods. Four credits.* Graduate credit given with consent of the instructor. Fee $8. Moose.

451–452. PHYSICAL CHEMISTRY. A lecture and laboratory course based on the application of the laws of physics and the methods of calculus to chemical problems.

Prerequisites: Chemistry 232; Physics 152 or 204; Mathematics 232 or 242 or 252. *Three lectures and one laboratory period. Four credits each semester.* Graduate credit given with consent of instructor. Students who have taken Physics 205-206 may omit the laboratory work. Fee $4. Deming.

461. THE CHEMICAL TECHNOLOGY OF UNIT OPERATIONS. A lecture and recitation course dealing with the application of chemical and physical fundamentals to unit processes. Materials handling, fluid flow, and heat transfer included.

Prerequisites: Chemistry 362. *First semester. Three lectures. Three credits.* Moose.

481. HISTORY OF CHEMISTRY. A lecture course on the development of the science of chemistry.

Prerequisites: Three years of college chemistry. *Second semester. Two lectures. Two credits.* Graduate credit given with consent of instructor. Deming.

487–488. CURRENT CHEMICAL LITERATURE. A seminar course designed to help the student become familiar with the various sources of chemical information and afford him practice in summarizing such information for discussion.

Prerequisite: Two years of college chemistry. *One-half credit each semester.* May be repeated for maxium of two credits. Graduate credit given with consent of instructor. Staff.

497–498. THESIS COURSE FOR UNDERGRADUATES. A laboratory and library course based on a special topic chosen from inorganic, analytical, organic or physical chemistry. To be arranged by consultation with the instructors.

Prerequisite: Three years of college chemistry. *Two credits each semester.* Fee $8. Moose and Staff.

514. CHEMISTRY OF THE RARER METALS. A laboratory course designed to show the relationship between the rarer and the common elements in a systematic qualitative analysis.

Prerequisite: Graduate standing. *Second semester. Two laboratory periods. Two credits.* (Open to qualified seniors with the consent of the instructor.) Fee $8. Williams.

544. ADVANCED ORGANIC CHEMISTRY. A lecture course of advanced topics in organic chemistry. Modern theories on structure and reaction mechanisms. Special assignments.

Prerequisite: Chemistry 342. *Second semester. Two lectures. Two credits.* (Open to seniors with consent of instructor.) Moose.

546. ADVANCED ORGANIC CHEMISTRY. A laboratory course designed to give the student training in the methods of quantitative organic analysis. Textbook and methods taken from recent literature are employed.

Prerequisite: Chemistry 443. *Second semester. Two laboratory periods.* Fee $8. (Open to seniors with consent of the instructor.) Morris.

553. ELECTROCHEMISTRY. A lecture and laboratory course based upon the theory and use of electrochemical cells.

Prerequisite: Chemistry 452. *First semester. One lecture and two laboratory periods. Three credits.* Fee $8. Deming.

554. THE PHASE RULE. A lecture and laboratory course based upon the theory and application of Gibb's Phase Rule.

Prerequisite: Chemistry 452. *Second semester. One lecture and two laboratory periods. Three credits.* Fee $8. Deming.

555–556. ADVANCED PHYSICAL CHEMISTRY. A lecture course dealing with the thermodynamical functions and their partial derivatives.

Prerequisite: Chemistry 452. *Two lectures. Two credits.* Deming.

599. THESIS COURSE FOR GRADUATE STUDENTS. Special problems for research chosen in consultation with some member of the department and carried on under his direction.

Prerequisite: Four years of chemistry and graduation from an approved college. *Either semester. Maximum of six credits.* Fee $4 per credit hour, according to work. Moose and Staff.

CIVIL ENGINEERING

Professor BLODGETT (Chairman of Department); Assistant Professor POOLMAN; Mr. BREESE, Mr. ROGERS.

241. PLANE SURVEYING. An introductory course designed to acquaint the student with the fundamental principles of plane surveying and the instruments used in ordinary plane surveying operations.

Prerequisite: Mathematics 152. *Two classroom periods and one field period. Three credits.* Laboratory fee $3.

242. PLANE SURVEYING. A continuation of Civil Engineering 241 leading to a detailed study of topographical surveying methods, field astronomy, and other problems usually encountered in civil engineering practice.

Prerequisite: Civil Engineering 241. *Two classroom periods and two field or drawing room periods. Four credits.* Laboratory fee $5.

245. ENGINEERING PROBLEMS. The systematic solution of typical problems encountered in engineering practice. The use of the slide rule and other computational aids is contemplated.

Prerequisite: Mathematics 152. *One classroom period and one drawing room period. Two credits.*

246. CONSTRUCTION MATERIALS. A detailed study of the source, manufacture, and use of the materials ordinarily used in construction and machines.

Prerequisite: Sophomore standing in engineering. *Three classroom periods. Three credits.*

361. HYDRAULICS. A course designed to give a sound working knowledge of the laws concerning the flow of water through open and closed conduits and metering devices. Hydrostatic problems are also considered. Civil engineering students enroll for Civil Engineering 367.

Prerequisite: Mathematics 252. *Three classroom periods. Three credits.*

363. CURVES AND EARTHWORK. A study of the factors involved in the location of routes and the computation of quantities of earthwork for highways, canals, railways, and similar routes.

Prerequisite: Civil Engineering 242. *Two classroom periods and one field or drawing room period. Three credits.* Laboratory fee $5.

364. HYDROLOGY. The fundamental principles of hydrology and its related problems of climatology, stream-flow, run-off, underground water and snow surveys. An elective course.

Prerequisite: Junior standing in engineering. *Three classroom periods. Three credits.*

366. ROADS AND PAVEMENTS. A study of the various types of street and highway construction with consideration of the natural and economic factors which influence the selection and location of streets and highways.

Prerequisite: Civil Engineering 242. *Four classroom periods. Four credits.*

367. ELEMENTARY FLUID MECHANICS. This course devotes considerable time to the study of fluids, including water, at rest and in motion. A sound understanding of practical hydraulics is not overlooked.

Prerequisite: Mathematics 252. *Three classroom periods and two laboratory or computation periods. Five credits.* Laboratory fee $5.

369. NONMETALLIC TESTING LABORATORY. A laboratory course affording a study of the physical properties of the nonmetallic materials used in construction, including soils, hydraulic cements, concrete, stone, brick, tile, timber, and bituminous materials.

Prerequisite: Mathematics 252. *One laboratory period. One credit.* Laboratory fee $4.

372. STRENGTH OF MATERIALS. The application of the principles of mathematics and mechanics to engineering problems

involving beams, columns, shafts, and other structural units or machine parts. A consideration of the physical properties of the usual materials from which these units and parts are made.

Prerequisite: Mathematics 341. Civil Engineering students enroll in Civil Engineering 376. *Three classroom periods. Three credits.*

374. METALS TESTING LABORATORY. A laboratory course giving an opportunity for the detailed study of the physical properties of the metals generally used in engineering operations. This course is coordinated with, and supplements Civil Engineering 376.

Prerequisites: Mathematics 341. *One laboratory period. One credit.* Laboratory fee $4.

376. MECHANICS OF MATERIALS. A more extensive course than Civil Engineering 372.

Prerequisite: Mathematics 341. *Three classroom periods and one laboratory or computation period. Four credits.*

481. FRAMED STRUCTURES. An introductory presentation of the classification and analysis of simple (statically determinate) structural frames. Algebraic and graphical methods are presented. Loadings are fully considered.

Prerequisite: Mathematics 341. *Three classroom periods and two drawing room periods. Five credits.*

484. STRUCTURAL DESIGN. Comprehensive and total problems in the structural design of typical engineering structures.

Prerequisite: Civil Engineering 481. *Two classroom periods and two drawing room periods. Four credits.*

485. MECHANICS OF REINFORCED CONCRETE. The design and analysis of structural members and units constructed from reinforced concrete. An introduction to the stress analysis of rigid and continuous frames.

Prerequisite: Civil Engineering 376. *Three classroom periods and one drawing room period. Four credits.*

486. REINFORCED CONCRETE DESIGN. A continuation of Civil Engineering 485 with emphasis upon the total design of typical engineering structures wherein the use of reinforced concrete predominates.

Prerequisite: Civil Engineering 485. *One classroom period and two drawing room periods. Three credits.*

487. HIGHWAY ENGINEERING. A continued and more detailed study of topics introduced in Civil Engineering 366, with supplementary information abstracted from current Road Builders publications and periodicals. An elective course.

Prerequisite: Civil Engineering 363, 366. *Three classroom periods. Three credits.*

488. Engineering Economy. The principles of cost comparison and the selection of the most economical arrangement of the component parts of engineering structures.
Prerequisite: Senior standing in engineering. *Two classroom periods. Two credits.*

489. Sanitary Engineering. The collection, treatment, and distribution of potable water supplies. The Public Health aspects are contemplated.
Prerequisite: Civil Engineering 364, 367. *Three classroom periods. Three credits.*

490. Sanitary Engineering. The collection, treatment and distribution of storm and domestic sewage and industrial wastes. The Public Health aspects are contemplated.
Prerequisite: Civil Engineering 489. *Three classroom periods. Three credits.*

491. Contract and Specifications. An elementary presentation of the basic legal and ethical principles of importance to the engineer engaged in preparing specifications and letting contracts for public or private construction.
Prerequisite: Junior standing in engineering. *Two classroom periods. Two credits.*

492. Foundations. A study of the principles and practices of the design and construction of foundations for engineering structures.
Prerequisite: Civil Engineering 378, 485. *Three classroom periods. Three credits.*

494. Irrigation Engineering. A study is made of the collection, storage, and distribution of water for irrigation, with emphasis on the engineering aspects of these problems. An elective course.
Prerequisite: Civil Engineering 364, 367, 481, 485. *Three classroom periods. Three credits.*

510. Hydraulics of Open Channels. Elective. An advanced study of the flow of water through open channels.
Prerequisite: Civil Engineering 367. *Two classroom periods. Two credits.*

511. Hydraulic Machinery. Elective. The theory, construction, operation, and characteristics of hydraulic turbines, pumps, and other hydraulic machinery.
Prerequisite: Civil Engineering 367. *Two classroom periods. Two credits.*

514. Advanced Hydraulic Problems. Elective. Offers an opportunity for the superior student to undertake detailed studies in the field of hydraulics not dealt with in other courses.
Prerequisite: Civil Engineering 367. *Credits to be arranged.*

520. Advanced Structural Design. Elective. This course affords the interested student an opportunity for more extensive studies in the field of structural design and stress analysis than is possible in previous courses.

Prerequisite: Civil Engineering 484, 486. *Three credits.*

521. Advanced Structural Design. Elective. A continuation of Civil Engineering 520 affording the superior student an opportunity for specialized study in the field of structural design and stress analysis.

Prerequisite: Civil Engineering 520. *Credits to be arranged.*

524–525. Special Engineering Problems. Elective. This makes catalogue provision for specialized study in any of the subjects pertaining to civil engineering. The subject matter and credit may be arranged after conference with the Staff members and Administrative officers concerned.

599. Graduate Research or Thesis. This course makes catalogue provision for advanced study in specialized fields and is expected to include the writing of a suitable report or thesis. The subject matter and credit may be arranged after conference with the Staff members and Administrative officers concerned.

Dairy Husbandry

(See Animal Husbandry)

Economics, Business, and Sociology

Professors Inwood, Webster (Chairman of Department); Assistant Professors Chadwick, Ellis, Plumley; Mr. Bagley, Mr. Bernhard, Mr. Gunn, Mr. Hoyt, Mr. Palmer, Mr. Shelley, Mr. Skinner, Mrs. Wright.

Requirements for Fields of Concentration in Economics, Business Administration, and Sociology

1. Business Administration: *Major-interest subject* (33 credits)—Business Administration 241, 243, 244, 247, 355, 356, 365, 368, 374 (27 credits) and 6 additional credits in courses in business administration numbered above 300. *Related subjects* (17 credits)—Economics 107, 201, 202, 361, 373 (14 credits) and 3 additional credits in economics numbered above 300. Psychology 201, 381, 382, 391; Mathematics 210; and courses in philosophy are strongly recommended as electives. See course of study outlined on pages 155, 156.

Students completing the requirements of this field will be granted the degree: Bachelor of Science in Business Administration.

2. Economics: *Major-interest subject* (30 credits)—Economics 201, 202, 351, 353, 357, 361, 365, 492 (24 credits) and 6 additional credits in courses in economics numbered above 300. *Related subjects* (20 credits)—Business Administration 243, 244 (6 credits) and 14 additional

credits selected with the approval of the department from the following subjects: philosophy, psychology, mathematics, political science.

3. SOCIOLOGY: *Major-interest subject* (27 credits)—Sociology 201, 350, 352, 357, 371, 379, 380, 383, 490 (21 credits) and 6 additional credits in sociology. *Related subjects* (23 credits)—Economics 201, 202 (6 credits); Psychology 201, 205, 361 (8 credits); and 9 credits selected with the approval of the department from philosophy or political science.

Economics

107. ECONOMIC GEOGRAPHY. Resources and industries of the world with special reference to their bearing on geographic specialization and international trade.

First semester. Two credits. Open to freshmen. Staff.

110. ECONOMIC HISTORY OF THE UNITED STATES. Introductory historical treatment of the economic development of America.

Second semester. Two credits. Open to freshmen. Staff.

201. PRINCIPLES OF ECONOMICS. An introduction to economic theory. A discussion of economic problems together with economic principles applicable to their solutions.

Prerequisite: Sophomore standing. *Either semester. Three credits.* Staff.

202. PRINCIPLES OF ECONOMICS. A continuation of economics 201.

Either semester. Three credits. Staff.

203. ECONOMICS FOR ENGINEERS. Consideration of economic problems and principles with special emphasis on the engineering point of view. College of Engineering students only.

First semester. Three credits. Inwood.

218. CONSUMER ECONOMICS. A study of the consumer from the standpoint of family buying and financial management, marketing and income distribution. No credit to upper division students except in Home Economics.

Second semester. Three credits. Inwood.

351. PUBLIC FINANCE. Public expenditures and sources of public revenue.

Prerequisite: Economics 201-202. *First semester. Three credits.* Bernhard.

353. MONEY AND BANKING.

Prerequisite: Economics 201-202. *First semester. Three credits.* Plumley.

354. GOVERNMENTAL REGULATION OF INDUSTRY. The development, organization, characteristics and legal status of public service enterprises.

Prerequisite: Economics 201-202. *Second semester. Three credits.* Gunn.

356. INSURANCE.
Prerequisite: Economics 202-202, Business 241. *Second semester. Two credits.* (Offered in even-numbered years.) Plumley.

357. ADVANCED ECONOMIC THEORY.
Prerequisite: Economics 201-202. *First semester. Three credits.* Bernhard.

358. INTERNATIONAL TRADE. Theory of international trade. Tariffs and tariff history.
Prerequisites Economics 201-202. *Second semester. Two credits.* Inwood.

361. STATISTICAL METHODS. Elementary statistical methods as used in business and in the social sciences.
First semester. Two lectures and one laboratory period per week. Three credits. Plumley.

362. TRANSPORTATION. The growth and development of transportation in the United States with emphasis on bases of rate structures and regulation.
Prerequisites: Economics 201-202. Business 241. *Second semester. Two credits.* (Offered in odd-numbered years.) Plumley.

363. ECONOMIC HISTORY OF EUROPE. The economic background of national and international development during ancient, medieval and modern times.
First semester. Two credits. Inwood.

365. LABOR ECONOMICS. A study of the wage earner, his compensation and problems of insecurity together with industrial and governmental solutions.
Prerequisite: Economics 201-202. *Second semester. Three credits.* Plumley.

366. SPECIAL LABOR PROBLEMS. Employer-employee relationships, unemployment compensation.
Prerequisite: Economics 365. *Second semester. Three credits.* Plumley.

373. BUSINESS CYCLES.
Prerequisite: Economics 201-202. *First semester. Three credits.* Plumley.

492. HISTORY OF ECONOMIC THEORY.
Prerequisite: Economics 201-202. *Second semester. Three credits.* Bernhard.

Business

111-112. STENOGRAPHY. Gregg Shorthand. Students must also take Business 221-222, unless they have had equivalent training. Students who have had one year of high school shorthand may not take this course for credit.
Two credits each semester. Not given in 1949–1950.

215-216. ADVANCED STENOGRAPHY. Speed and accuracy development in Gregg Shorthand. Study of stenographic duties and techniques essential for business employment.

Prerequisite: Business 111-112, or one year of high school shorthand. *Two credits in each semester.* Not given in 1949–1950.

221-222. TYPEWRITING. Touch typing. Rhythm drills; dictation exercises; arrangement of business letters. Students with one year of high school typing may not take Business 221 for credit. Credit allowed only upon attainment of prescribed production requirements.

Two credits each semester. Fee $5 per semester. Not given in 1949-1950.

239. BUSINESS ORGANIZATION FOR ENGINEERS. For College of Engineering students only.

Prerequisite: Sophomore standing. *First semester. Three credits.* Inwood.

241. FUNDAMENTALS OF BUSINESS ORGANIZATION. An introductory survey of problems and methods of business administration.

Prerequisite: Sophomore standing. *Either semester. Three credits.* Hoyt.

243-244. ELEMENTARY ACCOUNTING. Accounting theory and practice. Problems and practice sets.

Prerequisite: Sophomore standing. *Two lectures and one laboratory period per week. Three credits each semester.* Hoyt.

247. BUSINESS LAW. A comprehensive study of the forms and procedure with respect to law of contracts, negotiable instruments and general commercial practice.

First semester. Three credits. Skinner.

351. ADMINISTRATION OF BUSINESS. Various types of business organization and the handling of administrative problems arising therein.

For students in commercial education only. Either semester. Three credits. Inwood.

353. OFFICE MANAGEMENT. A study of general clerical and office practice, includes a study of filing, general business forms, procedures governing the handling of mail, duplicating machines, general business machines.

First semester. Two credits. Inwood. (Offered in even-numbered years.)

355-356. ADVANCED ACCOUNTING. Advanced theory of accounts and its application. Selected problems and readings.

Prerequisite: Business 243-244. *Three credits each semester.*

363. REAL ESTATE. Principles of real property ownership and

real estate practice. Property management, subdividing and developing, zoning and its effects.

First semester. Two credits. Inwood. (Offered in odd-numbered years.)

365. ADMINISTRATION OF FINANCE. Principles and problems of financing business enterprises.

Prerequisite: Business 241. *First semester. Three credits.* Plumley.

366. INDUSTRIAL MANAGEMENT. Internal organization and control of different forms of business enterprise.

Prerequisite: Business 241. *Second semester. Three credits.* Inwood.

367. PERSONNEL MANAGEMENT. Selection, placement, and efficiency of personnel. Employer-employee relationships.

Prerequisite: Business 241. *First semester. Two credits.* Inwood.

368. MARKETING. A study of distribution methods and costs together with advertising and sales promotion methods.

Prerequisite: Economics 201-202, Business 241. *Second semester. Three credits.* Inwood.

370. INVESTMENTS. Selection, appraisal, and shifting of capital investments.

Prerequisite: Business 241, Business 365, Economics 201, 202. *Second semester. Two credits.* Plumley.

371. MERCHANDISING. Operation of retail stores treating specifically store organization, lay-out, and principles of salesmanship and customer service.

First semester. Two credits.

372. ECONOMICS OF ADVERTISING. Methods of evaluation, criticism, purchase and control of advertising by the business man; social and economic aspects of advertising; organization and research in advertising; selection of media and planning of campaigns; social control of advertising. (Psychology 381 recommended.)

Second semester. Two credits.

374. ADVANCED BUSINESS LAW. An advanced course in business law for those who are specializing in a preparation for business.

Prerequisite: Business 247. *Second semester. Three credits.* Skinner.

385–386. COST ACCOUNTING. A comprehensive study of all elements of manufacturing cost accounting.

Prerequisite: Business 243-244. *Three credits each semester.* Palmer.

388. FEDERAL TAX ACCOUNTING. Study of the history of the Federal income tax; Federal revenue Acts and their interpretation. Actual preparation of individual, partnership and cor-

poration income tax returns, important Treasury Department decisions on income tax problems.
Prerequisite: Business 243-244. *Second semester. Two credits.* Palmer.

492. AUDITING. The principles and practice of auditing. Practice problems.
Prerequisite: Business 243-244. *Second semester. Three credits.* Palmer.

Sociology

102. SOCIAL PROBLEMS. The major problems of modern social life and their remedies.
Second semester. Three credits. Wright.

201. PRINCIPLES OF SOCIOLOGY. The fundamentals of social processes and evolution.
Prerequisite: Sophomore standing. *First semester. Three credits.* Wright.

350. RURAL SOCIOLOGY. Rural life and problems with special reference to Nevada conditions.
Second semester. Two credits. Webster.

352. JUVENILE DELINQUENCY. Causes, conditions and prevention of juvenile crime.
Second semester. Two credits. Webster.

357. CULTURAL ANTHROPOLOGY. Primitive cultures as a basis for modern social organization.
First semester. Two credits. Webster.

370. SOCIAL CONTROL. The social processes providing control of behavior.
Second semester. Three credits. Webster.

371. SOCIAL ORGANIZATION. The structure, forms, functions and development of major social groups and institutions.
First semester. Three credits. Webster.

379. RACE PROBLEMS. The social significance of race and racial minorities.
First semester. Two credits. Webster.

380. THE FAMILY. Forms and functions of the family as a social institution. Emphasis on present trends.
Second semester. Two credits. Webster.

381. PUBLIC WELFARE. Emphasis on welfare of children.
First semester. Two credits. Bagley.

383. POPULATION. The social and economic significance of numbers and quality of population. Migration.
First semester. Two credits. (Offered in even-numbered years.) Webster.

384. Social Security. Theory and development of modern provisions for economic security. Emphasis upon old age and unemployment in the United States.

Prerequisite: Economics 201-202. *Second semester. Two credits.* (Offered in odd-numbered years.) Webster.

386. Methods in Social Work. Principles and methods in applied sociology.

Prerequisite: Sociology 102 and 201. *Second semester. Two credits.* Bagley.

490. Advanced Social Theory. Emphasis upon modern schools of social thought.

Prerequisite: Sociology 201. *Second semester. Three credits.* Webster.

Education

Professors Brown, Traner (Chairman of Department); Associate Professor Ruebsam; Assistant Professors Jensen, Puffinbarger; Mr. Bunten, Miss Klaus.

Requirements for Fields of Concentration in Education

1. Kindergarten Primary: *Major-interest subject* (35 credits)—Education 117, 133, 134, 141, 149, 186, 190 (16 credits); 120 or 320, practice teaching in the kindergarten and in a primary grade (10 credits; 9 credits to be selected with the approval of the adviser, with at least one course from each of the following groups: a. Education 314, 315, 332; b. Education 145, 363. *Related Subjects* (15 credits)—To be selected in consultation with the adviser. The following courses are recommended: English 111 or 112, 121, 221 (6 credits); Music 101-102, 107 or 108, 113 or 114 (4 credits) unless already proficient in which case substitutions may be made: Physical Education for Women 170 and 281 (3 credits); Sociology 380 (2 credits).

2. General Elementary: *Major-interest subject* (30 credits)—Education 11, 186, 190 (6 credits); 6 credits to be selected from 130, 131, 135, 136, 137 (6 credits); 121, 321, or 323 (5 credits); 13 credits to be selected from at least three of the following groups: a. An additional course from Education 121, 321, 323; b. Education 133, 134, 149 and course not selected from 130, 131, 135, 136, 137; c. Education 145; d. Education 181-182, 388; e. Education 266 (Psychology 221); f. Education 357. *Related Subjects* (20 credits)—To be selected in consultation with the adviser. The following courses are recommended: English 111 or 112, 121, 385; Geography 101, 359 or 455; History 331, 372, 376.

3. Secondary Education: *Major-interest subject* (18 credits)—Education 190 (2 credits), 310 (2 credits), 471 (3 credits), 420 (4 credits), course in subject methods (2–4 credits), additional credits in courses in secondary education to be selected with the approval of the adviser (5–7 credits). *Related Subjects*—Academic preparation in high school teaching subjects: a. Specified credits in one of the titles in Group A below, plus one approved title in Group B; or, b. Specified credits in each of three titles in Group B.

Group A

1. Commercial Education: Economics 201-202 (6 credits), Business Administration 243-244 (6 credits), B. A. 247 (3 credits), B. A. 351 (3

credits), B. A. 353 (2 credits), and at least 7 additional credits selected from the following: Econ. 353, 358, and B. A. 355-356, 368. The student must also be able to pass a test of proficiency in stenography and typing.

2. ENGLISH, SPEECH, JOURNALISM: English 281 (3 credits), 291 (3 credits), 441 (3 credits), 465 (3 credits), 493 (3 credits), 385 (3 credits), 111-112 (4 credits), 121 (2 credits); Journalism 221 (3 credits), 387 (2 credits).

3. SOCIAL SUBJECTS: History 305-306 (6 credits), 331 (2 credits), 376 (3 credits), 405 (3 credits); Political Science 101-102 (6 credits); Economics 201 (3 credits); Sociology 201 (3 credits); Journalism 101 (3 credits).

4. SCIENCE COMBINATIONS OF BOTANY, ZOOLOGY, PHYSICS, AND CHEMISTRY: Botany 103 (3 credits), 203 (4 credits), Zoology 103 (4 credits), 335 or 337 (3 credits); Physics 151-152 (6 credits), 153-154 (2 credits); Chemistry 101 (4 credits), 102 (2 credits), 124 (2 credits).

5. CHEMISTRY, PHYSICS, AND MATHEMATICS: Chemistry 101 (4 credits), 102 (2 credits), 122 (3 credits); Physics 151-152 (6 credits), and 153-154 (2 credits); Mathematics 101 (2 credits), 102 (2 credits), 110 (3 credits), 140 (3 credits); and for students having high school credits for Mathematics 101, two credits from Math. 301, 371, 391, and 392.

6. OTHER COMBINATIONS: For students who have elected as their field of concentration a subject usually important in high school curricula, and who may wish to qualify for a secondary teachers' certificate, it may be possible to arrange an acceptable program, provided the courses already completed and the electives still available, make possible the completion of one of the titles in Group B.

GROUP B

1. CHEMISTRY–PHYSICS: Chemistry 101 (4 credits), 102 (2 credits), 122 (3 credits); Physics 151-152 (6 credits), 153-154 (2 credits).

2. MUSIC: Music 101-102 (2 credits), 301-302 (6 credits), 303 or 304 (2 credits), 111-112 or 117-118 (2 credits), and 3 credits selected from 103, 104, 107, 108, 113 and 114.

3. MATHEMATICS: Mathematics 101 (2 credits), 102 (2 credits), 110 (3 credits), 140 (3 credits), and 5 to 7 credits selected from 301, 371, 372, 391, 392, or from substitutions approved by the department of mathematics.

4. PHYSICAL EDUCATION FOR MEN: Physical Education 101-102 (1 credit), 201-202 (1 credit), 210 (3 credits), 301 (1 credit), 340 (2 credits), 430 (2 credits), 451 (3 credits), and 440 (3 credits).

5. PHYSICAL EDUCATION FOR WOMEN: Physical Education 161-162 (2 credits), 180 (2 credits), 261-262 (1 credit), 263-264 (2 credits), 281 (3 credits), 290 (2 credits), and 390 (3 credits).

6. BOTANY–ZOOLOGY: Botany 103 (3 credits), 203 (4 credits); Zoology 103 (4 credits), 335 or 337 (3 credits).

7. HISTORY: History 101-102 (6 credits), 312 (2 credits), 331 (2 credits), 376 (3 credits), 405 (3 credits).

8. ART: Art 101-102 (4 credits), 103 (2 credits), 105 (2 credits), 115 (2 credits), and 6 credits of 251-252 or 257-258.

9. SPANISH: (1) For students entering with no Spanish in high school, Spanish 101, 102, 103, 104 (16 credits), 351-352 (4 credits); (2) for students entering with one year of high school Spanish, Spanish 102, 103, 104 (11 credits), 351-352 (4 credits), 355 or 356 (2 credits); (3) for students entering with two years of Spanish in high school, Spanish

103, 104 (6 credits), 351-352 (4 credits), 355 or 356 (2 credits), 379 or 380 (2 credits), and 369, 370, 371, or 372 (2 credits).

10. ENGLISH: English 281 (3 credits), 291 (3 credits), 441 (3 credits), 465 (3 credits), 493 (3 credits).

11. SPEECH, DRAMATICS, AND JOURNALISM: English 111-112 (4 credits), 121 (2 credits), 217 (2 credits); Journalism 101 (3 credits), 221 (3 credits), 387 (2 credits).

Kindergarten-Primary Education

117. KINDERGARTEN–PRIMARY EDUCATION. Kindergarten-primary education as a unified experience, emphasizing the history, theory and curriculum.

First semester. Three credits. Ruebsam.

120. SUPERVISED TEACHING IN KINDERGARTEN-PRIMARY GRADES. Opportunity for teaching open to freshmen and sophomores desiring to qualify for the elementary teaching certificate.

Prerequisite: Students enrolled must have had or be taking Education 134. *Either semester. Five credits.* Ruebsam.

125. OBSERVATION OF TEACHING. Observation and discussion of specific classroom work in the kindergarten-primary grades.

First semester. One credit. Ruebsam.

134. THE TEACHING OF LANGUAGE ARTS IN THE PRIMARY GRADES. Includes beginning reading, activities, seat work, picture studies, stories, dramatization.

Second semester. Three credits. Ruebsam.

141. CONSTRUCTIVE ACTIVITIES FOR KINDERGARTEN–PRIMARY GRADES. A consideration of the materials by means of which the child organizes and expresses his ideas.

First semester. Two credits. (Given in alternate years beginning in 1947.) Fee $3. Ruebsam.

314. AUXILIARY SUBJECTS IN THE KINDERGARTEN–PRIMARY CURRICULUM. The contribution of arts and crafts, music, games and rhythms, to the education of the kindergarten and primary child.

Second semester. Two credits. (Given in alternate years beginning in 1948.) Ruebsam.

315. CONTENT MATERIAL IN KINDERGARTEN–PRIMARY GRADES. Study of objectives, methods, and desirable experiences in the fields of arithmetic and social science.

Second semester. Two or three credits. (Given in alternate years beginning in 1947.) Ruebsam.

320. SUPERVISED TEACHING IN KINDERGARTEN–PRIMARY GRADES. Opportunity for teaching open to juniors and seniors desiring to qualify for the elementary teaching certificate.

Prerequisite: Students enrolled must have had or be taking Education 134. *Either semester. Five credits.* Ruebsam.

332. LITERATURE IN THE KINDERGARTEN – PRIMARY GRADES. Children's stories and poetry as a background to literature, with practical guidance in selection and teaching; dramatizations, and simple puppetry.
Second semester. Two credits. Ruebsam.

363. EARLY GROWTH AND DEVELOPMENT OF THE SCHOOL CHILD. The factors affecting the physical, motor, intellectual, social, and emotional development of the child through the primary grades. Primarily for teachers in service.
First semester. Two credits. (Given in alternate years beginning in 1948.) Ruebsam.

General Elementary

111. TEACHING IN THE ELEMENTARY SCHOOL. An introduction to teaching as a profession, what it requires of the teacher, what it has to offer, and what problems of classroom teaching and management it presents.
First semester. Two credits. Ruebsam.

121. SUPERVISED TEACHING IN THE INTERMEDIATE GRADES. Opportunity for teaching, open to freshmen and sophomores desiring to qualify for the elementary teaching certificate.
Prerequisite: Students enrolled must have had or be taking methods courses. *Either semester. Five credits.*

130. TEACHING OF THE SOCIAL STUDIES. Emphasis upon such topics as directed study, the problem-discussion method, the unit and project method, and source material.
Second semester. Two credits. Puffinbarger.

131. THE TEACHING OF ARITHMETIC. Emphasis on diagnostic and remedial treatment of pupil difficulties; content, pupil readiness to learn arithmetic, and the principal objectives of arithmetic.
First semester. Two credits. Puffinbarger.

133. MODERN TRENDS IN ART EDUCATION. Techniques of handling art media—finger paint, clay, easel paint, chalk, water color, etc. Planned especially for elementary school teachers who wish to use new methods in art teaching.
Either semester. Two credits. Fee $4. Joslin.

135. THE TEACHING OF LANGUAGE. A study of the principles, materials, and methods involved in the teaching of the language subjects in the intermediate and upper grades.
Second semester. Two credits. Traner.

136. THE TEACHING OF READING. The improvement of reading ability in the intermediate and grammar grades, the diagnosis of reading difficulties and remedial procedures, and the developing of interest in broad reading for comprehension and pleasure.
First semester. Two credits. Puffinbarger.

137. THE TEACHING OF GEOGRAPHY. Modern trends in geography in the elementary school, the selection and organization of subject matter with specific reference to the State-adopted texts.
First semester. Two credits. Puffinbarger.

145. AUDIO–VISUAL AIDS IN ELEMENTARY SCHOOLS. The purpose of this course is to consider the various uses of audio-visual aids available for elementary schools. Study and evaluation of material and equipment. Selection of material for grade levels.
First semester. Lectures and laboratory. Three credits. Jensen.

149. TEACHING OF MUSIC. The aims and principles of music teaching in the kindergarten, elementary, and upper grades. Group technique, song leading, interpretation, rhythmic activities. Care of the voice through various periods of development. Music materials, rote exercises for improving pitch defects and tone quality. Music materials, rote songs, unison and descant songs, part songs, records, radio, and methods of approach for the listening period.
First semester. Two credits. Tate.

181–182. GUIDANCE AND PUPIL ADJUSTMENT IN THE ELEMENTARY SCHOOL. A study of the fundamental principles and methods of guidance. Emphasis on basic growth concepts, case history, tests, interviews, and questionnaires to discover the mental, physical, social, and emotional needs of elementary school children.
Each semester. Three credits. Jensen.

186. NONINSTRUCTIONAL PROBLEMS OF THE CLASSROOM TEACHER. Extra-class responsibilities and requirements of the elementary teacher such as reports, records, daily program, types of school furniture, equipment and supplies, school lunches, and community relations.
Second semester. Two credits.

190. STATE SCHOOL ORGANIZATION AND SCHOOL LAW. The principles of State school organization and school law as revealed by a study of the school code of the State; meets all certification requirements for school law.
Either semester. Two credits. Brown.

321. SUPERVISED TEACHING IN THE INTERMEDIATE GRADES. Opportunity for teaching, open to juniors and seniors desiring to qualify for the elementary teaching certificate.
Prerequisite: Students enrolled must have had or be taking methods courses. *Either semester. Five credits.*

323. SUPERVISED TEACHING IN SEVENTH AND EIGHTH GRADES. This course provides opportunity for teaching specific subjects

in the seventh and eighth grades. Credits apply to elementary certificates.

Either semester. Four or five credits. Brown.

357. History of Elementary Education. The evolution of elementary school practice and theory from the time of the early Greeks and Romans to the present.

First semester. Two credits. (Given in alternate years beginning in 1947.) Brown.

388. Education Tests and Measurements. The most serviceable tests and scales for measuring the elementary subjects; the course will involve giving and scoring of the tests.

First semester. Two credits. (Given in alternate years beginning in 1948.) Fee $1.50. Brown.

Secondary Education

303. Workshop in Vocational Education. Summer conferences concerning the curriculum and other problems of vocational home economics, agriculture, and trades and industries, as organized under the direction of the State Department of Vocational Education; for in-service teachers of these subjects.

One credit.

310. Problems of Secondary Education. The place and extent of secondary education in our school system; the purpose of education in a democracy; and the organization and content of a curriculum based on that purpose.

First semester. Two credits. Traner.

311. Supervision and Instruction in Junior High School Grades. A study of adolescents; the adjustment of materials and methods to the individual child that maximum growth may ensue.

Second semester. Two credits. (Given in alternate years beginning in 1948.) Brown.

330. Teaching of High School Social Studies. Treatment of subject matter and materials of high school social studies with particular reference to history and American government.

Second semester. Two credits. Brown.

331. Teaching of High School Mathematics. Selection and organization of subject matter and procedures in teaching.

First semester. Two credits. (Given in alternate years beginning in 1949.) Wood.

335. Teaching High School English. Acceptable material and methods in oral and written composition and in literature.

First semester. Two credits. Traner.

338. Teaching of High School Science. A study of the

most suitable subject matter for the various sciences and of methods of teaching.

Second semester. Two credits. Williams.

339. The Teaching of Secretarial Subjects. This course presents a study of the curriculum, methods of teaching, objectives, standards, grading, etc., in the subjects of typewriting, shorthand, and office practice.

Prerequisites: A knowledge of the theory of shorthand and typewriting. *First semester.* (Given in alternate years beginning in 1947.) *Two credits.* Klaus.

340. The Teaching of Bookkeeping, General Business Training, and Allied Subjects. The curriculum, methods of teaching, objectives, standards, grading, etc., in the teaching of bookkeeping, general clerical practice, consumer education, etc.

First semester. Two credits. (Given in alternate years beginning in 1948.) Klaus.

341. 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 each week. Two credits. Scranton.

344. Methods of Homemaking Education for Adults. Designed for the homemaking teacher as a help in methods of organizing, selecting content, and promoting work in adult groups as a part of the teacher's community activities.

Either semester. Three credits.

345. Audio-Visual Aids in Secondary Schools. A study of the function of audio-visual aids in education, showing advantages, limitations, and practical uses of various types of audio-visual aids. Critical appraisal of films, slides, film strips, and transcriptions, operation of equipment and selection of material.

Second semester. Lectures and laboratory. Three credits. Jensen.

347. Organization and Administration of Physical Education. Objectives, methods and general principles including, first, a discussion of the biological, physiological, psychological, and sociological principles underlying those objectives, and, second, a study of acceptable methods of administering a physical education program to achieve these objectives.

Prerequisite: Physical Education 180. (Identical with Physical Education 380 for Women.) *Two lectures. Two credits.*

349. High School Music. Practical consideration of problems involved in various phases of high school music. Assembly singing, conduction, choral groups, instrumental groups, etc.

Applicant must be a junior or senior taking courses in music. Active participation in band, orchestra, or chorus required.
Second semester. (Same as Music 349.) *Two credits.* Tate.

354–355. COMPARATIVE EDUCATION. A comparative study of national ideologies, philosophies, and systems of education in North and South America, Europe, and Japan.
Two credits. Each semester. Jensen.

358. HISTORY OF SECONDARY EDUCATION. A study of educational trends from the time of the early Greeks and Romans to the present.
Second semester. (Given in alternate years beginning in 1947.) *Two credits.* Brown.

381–382. GUIDANCE AND COUNSELING IN SECONDARY SCHOOLS. A study of the history and meaning of guidance and counseling, clinical and group guidance, principles, procedures, and techniques in counseling, and the place of the high school teacher in the guidance program. This course will also include a study of problems in vocational guidance, interests and aptitudes, placement, and the cumulative record.
Each semester. Three credits. Jensen.

420. SUPERVISED TEACHING IN THE HIGH SCHOOL. Teaching in grades nine to twelve in subjects in which the student is specializing. Required of all candidates for the high school teachers' diploma. Students enrolled must have had or be taking methods courses.
Either semester. Two to six credits. Brown.

421. SUPERVISED TEACHING FOR TEACHERS-IN-SERVICE. Preparation of lesson plans, observation and evaluation of teacher's presentation, readings and discussion on curriculum and method.
Either semester. Three credits. Staff.

445. METHODS OF TEACHING FARM MECHANICS. A course designed for students preparing to meet the qualifications for agriculture and farm mechanics instructors in high schools. The organization and administration of a farm mechanics course, including objectives, course content, lesson planning, and teaching methods.
First semester. Two credits. Titus.

446. PROBLEMS IN AGRICULTURAL EDUCATION. 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 for the vocational agricultural certificate.
Second semester. Two credits. Bunten.

447. Methods in Teaching Vocational Agriculture. Principles and techniques in course construction for all-day, young farmer, and adult farmer classes in vocational agriculture; preparation of teaching plans and job analysis; methods of conducting supervised farm training, including selection of the long-time program, aims and objectives, budgeting, preparation of job plans, keeping farm records and accounts, enterprise analysis and teachers' responsibility in supervision. Open to seniors who are preparing to meet the requirements for a high school vocational teaching certificate.

Second semester. Three credits. Bunten.

448. Problems in Homemaking Education. Curricula, methods of teaching, and making home contacts. 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 for the vocational home economics certificate.

Second semester. Three credits.

449. Methods in Teaching Homemaking. Analysis of objectives, content, and experience for a comprehensive program of education for home living in secondary schools to include the following: Provision for food for the family; selection, care and construction of clothing; care and guidance of children; selection, furnishing and care of house; selection and use of home equipment; maintenance of health; home care of the sick; consumer-buying; management of all materials and human resources available to the home; maintenance of satisfactory family relationships; application of the arts and sciences to the home.

Second semester. Three credits.

471. General Methods of High School Instruction. Various methods of presenting subject matter and such topics as the assignments, school discipline, reviews, motor skills, testing the results of teaching, and the teacher's personality. To be taken in the senior year.

First semester. Three credits. Brown.

482. Noninstructional Responsibilities of the High School Teacher. Growth and advancement in the profession, ethical responsibilities, satisfactory administration and professional relations.

For seniors only. *Second semester. Two credits.* Traner.

Educational Psychology

266. Elementary Educational Psychology. A consideration of the applications of psychology to educational problems. Identical with Psychology 221.

Prerequisite: Psychology 201. *Second semester. Three credits.* Irwin.

363. EARLY GROWTH AND DEVELOPMENT OF THE SCHOOL CHILD. The factors affecting the physical, motor, intellectual, social, and emotional development of the child through the primary grades of school. Primarily for teachers in service.

First semester. (Given in alternate years beginning in 1948.) *Two credits.* Ruebsam.

365. THE EDUCATION OF SUPERIOR CHILDREN. The problems and methods involved in the adjustment and training of superior children, and with educational provisions for the mentally alert, but emotionally unstable, gifted child.

Second semester. (Given in alternate years beginning in 1948.) *Two credits.* Puffinbarger.

367. PSYCHOLOGY OF THE ELEMENTARY SCHOOL SUBJECTS. The scientific experiments and investigations relating to learning and teaching of the elementary branches; psychological problems of immediate concern to the teacher in the classroom.

Second semester. (Given in alternate years beginning in 1948.) *Two credits.* Puffinbarger.

368. ADVANCED EDUCATIONAL PSYCHOLOGY. The nature and needs of the child, emphasizing mental and emotional development, nature of learning, conditions affecting learning, problems of transfer, problems of adjustment.

First semester. (Given in alternate years beginning in 1949.) *Two credits.* Puffinbarger.

369. THE EDUCATION OF RETARDED CHILDREN. Characteristics and capacities of slow-learning children, their place in the school and community, and the procedures basic to planning and carrying out an adequate program of learning experience of such children.

First semester. (Given in alternate years beginning in 1948.) *Two credits.* Puffinbarger.

Graduate Courses

501. GRADUATE THESIS. Preparation of the thesis for the Master's degree.

Open only to candidates for the M.A. degree in Education. *Credits to be arranged.* Members of the Staff.

502. INDEPENDENT STUDY FOR GRADUATE STUDENTS. The intensive study of some specific educational problem of particular interest to the student, involving an exhaustive survey of research and previous study, original research, and a written report of the study.

Intended primarily for candidates for the Master's degree. *Two credits.* Members of the Staff.

Electrical Engineering

Professors S. G. Palmer, Sandorf (Chairman of Department); Assistant Professor Hendriks; Mr. McLeod.

231-232-233-234. Electrical Engineering Laboratory. This course offers the electrical engineering student an opportunity to undertake a project in his chosen field. The nature and scope depends upon background of student.

Open to freshmen and sophomores. *One or two credits each semester.* A laboratory fee of $5 per credit may be required, depending on nature of project undertaken.

323. Elements of Electrical Engineering. An elementary course in electric circuits, machinery, electronics, and measurements. Includes lectures and demonstrations. Designed primarily for students not taking electrical engineering, the course will be adapted to needs of the students.

Both semesters. Two credits.

351. Direct Current Machinery. A course for electrical and mechanical engineering students on the theory, characteristics, construction, and operation of direct current machines and circuits.

Prerequisites: Physics 204, Mathematics 252. *First semester. Three credits.*

352. Alternating Current Machinery. A continuation of Electrical Engineering 351 covering a similar study of alternating current machines and circuits.

Prerequisite: Electrical Engineering 351. *Second semester. Three credits.*

353. Direct Current Machinery Laboratory. This course is normally accompanied or preceded by Electrical Engineering 351 and has same prerequisites.

First semester. Two credits. Fee $5.

354. Alternating Current Machinery Laboratory. This course is normally accompanied or preceded by Electrical Engineering 352.

Second semester. Two credits. Fee $5.

355. Introduction to Electric Circuits. The study of elementary electric and magnetic circuits and fields, steady state and transient response to alternating current and direct current of simple circuits.

Prerequisite: Physics 204, preceded or accompanied by Mathematics 351. *First semester. Two credits.*

356. Alternating Current Circuits. A continuation of Electrical Engineering 355, including a study of series and parallel

alternating current circuits, coupled circuits, and transmission lines. Complex quantities and vector notation are employed.

Prerequisites: Electrical Engineering 355, Mathematics 351. *Second semester. Two credits.*

367. ELECTRICAL ILLUMINATION. A study of the principles and practice of electrical illumination.

Prerequisite: College physics. *First semester. Two credits.*

368. INTRODUCTION TO ELECTRONICS. Theory and application of vacuum and gas-filled tubes and circuits.

Prerequisite: Electrical Engineering 355 or equivalent. *Second semester. Lectures and laboratory. Three credits.* Fee $5.

375. ELECTRICITY IN MINING. The study of the theory and application of electrical equipment commonly used in mining and associated fields.

Second semester. Lectures and laboratory. Three credits. Fee $5.

391–392–393–394. ELECTRICAL ENGINEERING PROJECT. The nature of the project depends upon the student's interest and ability. It must be in the field of electrical engineering. The student is expected to take the initiative in consulting periodicals and the instructional staff.

One or two credits. A fee of $5 per credit may be required.

461. ADVANCED ALTERNATING CURRENT MACHINERY. A continuation of Electrical Engineering 352.

Prerequisite: Electrical Engineering 352 and 356. *First semester. Three credits.*

462. ELECTRICAL DESIGN. Study of the fundamental principles underlying the design of electrical equipment. An inspection trip to Hoover Dam is included as part of the course. Lectures and computation periods.

Prerequisite: Electrical Engineering 461. *Second semester. Three credits.*

463. ADVANCED ALTERNATING CURRENT LABORATORY. A continuation of Electrical Engineering 353 and 354, normally accompanied by Electrical Engineering 461.

First semester. Three credits. Fee $5.

464. ADVANCED ALTERNATING CURRENT LABORATORY. A continuation of Electrical Engineering 463.

Second semester. Three credits. Fee $5.

466. GENERATION AND DISTRIBUTION OF POWER. Study of the economic and technical factors underlying the location, design, construction, operation, and protection of generating, transmission, and distribution systems. A discussion of symmetrical components and stability is included.

Prerequisite: Electrical Engineering 461. *Second semester. Three credits.*

469. INDUSTRIAL ELECTRONICS. A study of the principles of electronics as applied to such industrial processes as rectification, weldings, high-frequency heating, X-rays, and control.

Prerequisites: Electrical Engineering 368 or equivalent. *Second semester. Lectures and laboratory. Two credits.* Fee $5.

481. ADVANCED ELECTRONICS. The theory and application of electron tubes and circuits used as amplifiers, oscillators, modulators, and detectors. A discussion of telephone and telegraph communication, microphones, loudspeakers, and public address systems is included.

Prerequisites: Electrical Engineering 356 and Electrical Engineering 368. *First semester. Lectures and laboratory. Six credits.* Fee $5.

482. RADIO COMMUNICATION AND MICROWAVES. The principles of radio communication and other high frequency systems including a complete analysis of the generation, transmission, reception, detection, and measurement of high frequencies and microwaves. A discussion of radar and television is included.

Prerequisite: Electrical Engineering 481. *Second semester. Lectures and laboratory. Six credits.* Fee $5.

487-488. SEMINAR. Discussion of technical articles appearing in current periodicals.

Prerequisite: Senior standing. *One credit.*

495-496. THESIS. The subject and its scope must have the approval of the instructor.

One to three credits. A fee of $5 per credit may be required.

ENGLISH LANGUAGE AND LITERATURE

Professors GRIFFIN, LAIRD; Associate Professors ELDRIDGE, HUME, MILLER; Assistant Professors GORRELL (Chairman of Department), RICHARDS; Mrs. BROWN, Mr. EDWARDS, Mr. HELM, Mrs. HUME, Mr. MASCOTT, Mr. MILSTEAD, Mr. SEMENZA, Mrs. SPENCER, Mrs. WILKIE.

REQUIREMENTS FOR FIELDS OF CONCENTRATION IN ENGLISH AND SPEECH

Students will normally be expected to elect courses in accordance with at least one of the approved options which follow. Many students are able to fill requirements for more than one option.

1. LIBERAL ARTS. *Major-interest subject* (30 credits)—English 281, 291 (6 credits), 451, 465, 493 (9 credits), four courses selected from 441, 461, 471, 475, 481, 485 (12 credits), one course selected from 442, 452, 462, 466, 469, 472, 476, 482 (3 credits). *Related Subjects* (20 credits)—Each student should choose one of the four groups and select 20 credits from the courses listed in it. a. *Artistic:* History 393-394 (4 credits); Philosophy 455 (2 credits), 14 credits, with at least one course from each of the departments designated, selected from Art 115, 261, 362, English 221-222, 321-322, 421-422; Music 203, 204, 304 (14 credits). b. *Language:* First and second year courses in a language other than that

by which the student has fulfilled his Arts and Science requirements (16 credits); 4 credits selected from English 221-222, 421-422, History 371-372, 393-394; Philosophy 455; courses in foreign languages numbered above 300 (4 credits). c. *Social Studies:* History 341-342 (6 credits), 393-394 (4 credits); 10 credits selected from Economics 201, 363, English 315-316, 421-422, Philosophy 353, 455; Psychology 361, Sociology 371, 380 (10 credits). d. *Special Interest:* For students having special interests not well reflected in one of the three groups above, 20 credits to be chosen in consultation with the adviser.

2. General Literature. (See also Foreign Languages, pp. 248–255). *Major-interest subject* (36 credits in Departments of English and Foreign Languages)—Courses in foundations of language and literature, regularly taken sophomore year, English 281, 291 (6 credits), broad courses selected from English 335, 337, Spanish 371-372 (6 credits); courses in either or both departments intended to introduce the student to comparative methodology and practice selected from French 351-352, 371, 372, German 351-352, 371-372; Italian 351-352; Spanish 351-352, 369-370, English 452, 461-462, 472, 475-476, 485-486 (6 credits). Remaining courses are to be distributed roughly equally among two or more bodies of literature, normally a part of the literature of two nations or peoples. Courses acceptable include those in Foreign Languages numbered above 300 and those in English numbered above 400. This division of the concentration must include one course, given in either the Department of Foreign Languages or the Department of English which is in the main an undergraduate thesis of a scholarly or critical nature, concerned with relationships and characteristics of the two bodies of literature in which the student is professing interest. (Such courses are not numbered in the 1949–1950 catalogue) (18 credits). *Related Subjects* (14 credits)—To be selected according to one of the following plans: a. Courses in one foreign language other than those selected for concentration in the major subject (14 credits). b. Courses in social sciences and the humanities to be selected in consultation with the adviser (14 credits).

3. Literary Writing. *Major-interest subject* (29-33 credits—English 201-202 (4 credits); 281, 291 (6 credits); 335, 337, 451, 465, 481 (15 credits); 305-306, 405-406 (4–8 credits). *Related Subjects* (17-21 credits)—The student shall select 17-21 credits from one of the four groups of related subjects listed for Option 1 above.

4. Speech, Public Speaking, Argumentation, Radio Speech. *Major-interest subject* (35 credits)—English 111-112 (4 credits); 217-218 (4 credits), 221-222 (4 credits); 311-312 (4 credits); 315-316 or 317-318 (4 credits); 327-328 (4 credits), 411 (3 credits); 415-416 (4 credits). Students doing outstanding work in speech courses may sometimes, with the consent of the department, substitute an equal number of credits in related subjects in place of certain credits in the major subject. *Related Subjects* (15 credits)—15 credits to be selected from the following courses, at least 6 credits of which shall be in psychology: English 281, 441-442, 465; History 303, 305, 306, 312; Philosophy 107, 108, 221, 222; Psychology 201, 205, 361, 362.

5. Speech, Theater and Interpretation. *Major-interest subject* (35 credits)—English 111-112 (4 credits); 121-122 (4 credits); 217-218 (4 credits); 221-222 (4 credits); 321-322 or 323-324 (4 credits); 327-328 (4 credits); 411 (3 credits); 423-424 (4 credits); 425-426 (4 credits). Students doing outstanding work in speech courses may sometimes, with the consent of the department, substitute an equal number of credits in related subjects in place of certain credits in the major subject. *Related Subjects* (15 credits)—15 credits to be selected from the following

courses, at least 6 credits of which shall be in English literature; Art 101, 115; English 253, 254, 291, 355, 356, 441, 442, 465, 466; History 371, 372, 376; Journalism 387; Library 335; Philosophy 351, 353, 455; Psychology 361.

Students selecting a field of concentration in English who wish to qualify for a secondary teachers' certificate should consult the School of Education (see pp. 157–162) concerning requirements.

A. ELEMENTARY COMPOSITION. A noncredit course in the mechanics of composition required of those who are unable, in the placement examinations given all beginning students, to demonstrate the proficiency in expression normally expected of high school graduates.

One semester. No credit. Staff.

101-102. COMPOSITION AND RHETORIC. The study of English as a means of self-expression, with special attention to the writing of exposition.

Three credits each semester. Staff.

NOTE—At the recommendation of the department, students may be allowed to substitute for either English 101 or 102, or both, certain prescribed courses within the department numbered to 300, provided that at least six units of work in English are completed. 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 102 will be required to register for English 102 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 chairman of the department thinks advisable.

131-132. APPRECIATION OF LITERATURE. The reading of a wide selection of recent and contemporary literature of various types, intended to cultivate sound literary taste.

Two credits each semester. Staff.

135. INTRODUCTION TO SCIENTIFIC LITERATURE. Reading and study of writing on scientific subjects from ancient times to the present.

Three credits. Staff.

141. INTRODUCTION TO THE SHORT STORY. A study of significant short stories and of the short story as a form of literature.

Two credits. Staff.

145. THE MODERN AMERICAN NOVEL. A study of the American novel with stress on contemporary writers.

Two credits. Staff.

171-172. SHAKESPEARE FOR PLEASURE. Shakespeare's principal plays read for their social interest and their literary excellence. Not intended for students selecting a field of concentration in English.

Two credits each semester. Staff.

201-202. ADVANCED COMPOSITION. Extensive practice in various types of writing based upon the reading and discussion of contemporary prose.
Two credits each semester. Staff.

231-232. GREAT BOOKS. Masterpieces from many ages and from various great literatures of the world read in English for recreation and for general culture.
Three credits each semester. Staff.

247-248. THE MODERN NOVEL. The reading of significant modern novels for recreation and for the appreciation of the novel as an integrated approach to life.
Three credits each semester. Staff.

253-254. THE DRAMA OF TODAY. The reading of a variety of modern plays as an introduction to drama.
Two credits each semester. Staff.

261. INTRODUCTION TO POETRY. A study of selected poems for the purpose of increasing ability to understand, appreciate, and evaluate poetry.
Three credits. Staff.

267. INTRODUCTION TO THE ESSAY. A study of important English and American essayists and of the essay as a form of literature.
Two credits. Staff.

281. INTRODUCTION TO LANGUAGE. A study of the nature of language with a sketch of the growth of the American language.
Three credits. Laird.

291. INTRODUCTION TO LITERARY STUDY. A critical examination of creative writing and a survey of basic methods of literary study.
Three credits. Gorrell and Hume.

NOTE—English 281 and 291 are required of students with fields of concentration in the department, except those electing speech options. The courses need not be taken in their numbered sequence.

305-306, 405-406. ADVANCED TRAINING IN CREATIVE WRITING. The course is conducted as a writer's workshop. Required for the field of concentration in creative writing.
Prerequisite: The submission of a sample of superior creative work.
Two credits each semester. Staff.

335. GREEK AND LATIN LITERATURE IN TRANSLATION. Study of classical literature in translation, considering the contribution of Greek and Latin literature and culture to English literature.
Three credits. Staff.

337. THE BIBLE AS LITERATURE. The study of representative literary types found in the Old and New Testaments.
One semester. Three credits. Eldridge and Hume.

345-346. THE ENGLISH NOVEL. A study of the development of the novel in England from the eighteenth century to the present.
Three credits each semester. Hume and Gorrell.

355-356. MODERN DRAMA. Representative English and American dramatists, since 1890.
Two credits each semester. Gorrell.

385. DESCRIPTIVE GRAMMAR. An objective description of modern English usage, with a sketch of grammar as it is conventionally taught. Designed primarily for prospective teachers.
One semester. Three credits. Laird.

441-442. AMERICAN LITERATURE. The development of American literature from the beginning to the present.
Three credits each semester. Eldridge and Hume.

451-452. THE HEROIC AND MEDIEVAL AGES. A broad study of English literature from its sources in the Celtic, Germanic, and Latin traditions, with developments to 1500. Special attention will be given to Chaucer.
Three credits each semester. Laird.

461-462. THE RENAISSANCE. A broad view of English literature from the end of the Middle Ages to the Restoration, with special attention to the impact of influences from abroad.
Three credits each semester. Gorrell.

465-466. SHAKESPEARE. The reading of Shakespeare's plays and a closer interpretation of his more characteristic dramas.
Three credits each semester. Gorrell.

469. MILTON. A study of the representative writing of John Milton.
One semester. Three credits. Hume and Gorrell.

471-472. THE AGE OF REASON. Studies in the leading writers from Dryden to Burke, with attention to continental influences.
Three credits each semester. Hume.

475-476. THE ROMANTIC MOVEMENT. The rise of romanticism in the eighteenth century and its flowering in the nineteenth, with especial emphasis on the English Romantics.
Three credits each semester. Laird.

481-482. THE VICTORIAN AGE. The social and artistic movement of the nineteenth century as exemplified in English poetry and prose.
Three credits each semester. Laird.

485-486. MODERN LITERATURE. A serious study of modern writing with the emphasis upon contemporary American and

British literature, but with attention to significant literary movements throughout the world.

Three credits each semester. Eldridge and Hume.

493. SURVEY OF ENGLISH LITERATURE. A broad view of English and American literature and their social and international relationships. Intended to encourage the student to integrate his four years of study, the course may be required of seniors specializing in the department. (See requirements for fields of concentration in English.)

One semester. Three credits. Laird and Staff.

495-496, 497-498. INDEPENDENT STUDY.

Open to juniors and seniors specializing in English upon consultation with the chairman of the department. Hours to be arranged with individual students. *One credit a semester.* Staff.

501-502. SEMINAR.

Open only to graduate students. Hours to be arranged with individual students. *One to three credits each semester.* Staff.

591-592. THESIS COURSE.

Open only to candidates for a master's degree. Staff.

Speech

109. SPEECH IMPROVEMENT. A course especially designed for those students who desire or need concentrated work directed to the improvement of voice production. Attention will be given to voice drills and exercises both for individuals and for the class as a group.

One credit. May be repeated without credit. Richards.

111-112. 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.

Two credits each semester. Staff.

121-122. THEATER PRACTICE. An introduction to the several aspects of play production, excluding acting and directing. Through work backstage in University and Reno Little Theater productions, the student is oriented to practical theater.

Two credits each semester. Miller and the staff of the Reno Little Theater.

217-218. 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 expressions of thoughtful opinions on current topics are stressed.

Two credits each semester. Staff.

221-222. INTERPRETATION. The oral interpretation of the forms of literature with special attention directed to diction.

Two credits each semester. Staff.

311-312. Advanced Speech Composition. Study for effective speech composition, based upon application of rhetorical and psychological principles. Open to a limited number of students with consent of instructor.
Two credits each semester. Staff.

315-316. Principles and Techniques of Public Discussion. Study of the principles and techniques involved in the various forms of group discussion: symposium, panel, lecture forum, forensic progression, etc. Duties and problems of the discussion leader. Classroom practice in solving public problems. The course stresses scholarly inquiry on a cooperative basis.
Prerequisite: English 111-112 or 217-218. *Two credits each semester.*

317-318. Advanced Argumentation and Persuasion. Study of the intellectual and emotional behavior of the audience. Analysis of complex public problems and the briefing of cases for the advocate.
Prerequisite: English 217-218. *Two credits each semester.*

321-322. Advanced Interpretation. A study of advanced techniques of oral expression to develop imagination, reading skill, and platform deportment in all its phases. Practice will include radio presentations of dramatic materials.
Prerequisite: English 221-222, or the consent of the instructor. *Two credits each semester.*

323-324. The Oral Interpretation of Shakespeare. The oral interpretation of Shakespeare's plays. During the second semester the class will present a full-length production.
Two credits each semester. Miller.

327-328. Radio. Practice and discussion of radio speaking and production.
Prerequisite: English 111-112 or other elementary work in speech. *Two credits each semester.*

411. Phonetics. A study of the phonetics of American English treating with the sounds of the International Phonetics Alphabet, as applied to English. Primary consideration will be given to the manner in which the speech mechanism produces sounds and integrates them into meaningful patterns, with a brief consideration of physiological and acoustical principles involved in voice production.
Prerequisite: Consent of instructor. *Three credits.* Richards.

413. Parliamentary Law and Practice. Study and practice of the parliamentary rules and procedure governing deliberative assemblies.
Two credits.

415-416. History of Public Address. The study and appraisal of the speeches of famous orators, viewing each in relation to the

social milieu in which the speech situation is set. The first semester will treat ancient, medieval, and English orators; the second American orators.

Registration with instructor's permission. *Two credits.* Richards.

417. 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.

Two credits.

419-420. Pre-Legal Argumentation. Study and practice, especially for pre-legal students, of the forensic aspects of law. The course will include participation in mock trials and the auditing of exemplary cases and suits in local courtrooms.

Two credits each semester.

423-424. History of the Theater. A study of the development of the theater from its earliest beginning to contemporary theater.

Two credits each semester. Miller.

425-426. Play Directing. The reading, study, and production of representative and modern plays, with lectures, readings and reports.

Prerequisite: Consent of instructor. *Two credits each semester.* Miller.

Foreign Languages

Professors Chappelle,[1] Murgotten; Associate Professors Gottardi (Chairman of Department), Melz; Assistant Professors Dandini, Kline; Mrs. Brown, Mrs. Davis, Mr. Marsh, Mrs. Meredith, Mr. Saurennan.

Requirements for Fields of Concentration in Foreign Languages

Requirements for a major-interest subject in the Department of Foreign Languages: With no admission units, courses 101-102 (10 credits), 103-104 (6 credits), and 12 credits in courses numbered 300 or above as required for the respective language, making a total of 28 credits; with 2 admission units, courses 103-104 (6 credits), and the 12 credits in the courses numbered 300 or above as required for the respective language, in addition 8 credits to be selected from courses numbered 300 or above in the respective language, making a total of 28 college credits. *Related subjects* (22-24 credits), including courses in the departments of History, English, and Foreign Languages and electives to be selected in consultation with the adviser.

Requirements for major-interest subjects for a Field of Concentration in one language:

1. French. *Major-interest subject* (26-28 credits)—French 101-102 (10 credits), 103-104 (6 credits), 351-352 (4 credits), 355-356 (4 credits) or 373-374 (4 credits), 357-358 (4 credits).

2. German. *Major-interest subject* (26-28 credits)—German 101-102

[1]Deceased, 1948.

(10 credits), 103-104 (6 credits), 351-352 (4 credits) or 371-372 (4 credits), 355-356 (4 credits) or 379-380 (4 credits), 357-358 (4 credits) or 369-370 (4 credits) or 375-376 (4 credits).

3. ITALIAN. As a *major-interest* subject Italian may be taken only by students without high school admission units in this language. *Major-interest subject* (28 credits)—Italian 101-102 (10 credits), 103-104 (6 credits), 351-352 (4 credits), 353-354 (4 credits), 355-356 (4 credits).

4. SPANISH. *Major-interest subject* (26-28 credits)—Spanish 101-102 (10 credits), 103-104 (6 credits), 351-352 (4 credits) or 371-372 (4 credits), 355-356 (4 credits) or 379-380 (4 credits), 357-358 (4 credits).

5. ROMANCE LANGUAGES. 50 credits in at least two of the following languages: French, Italian, Latin, Portuguese, Spanish. With at least 2 admission units in one Romance Language, courses 101-102 (10 credits) in another Romance Language 103-104 (12 credits) in two languages; of the remaining 28 credits a student must take at least 4 credits in composition in one language and 16 credits in literature, with a minimum of 4 credits in one language, the remaining 8 credits to be selected in consultation with the adviser.

6. GENERAL LITERATURE. (See also English, p. 242). *Major-interest subject* (36 credits in Department of English and Foreign Languages)—Courses in foundations of language and literature, regularly taken in sophomore year English 281, 291 (6 credits); broad courses selected from English 335, 337, Spanish 371-372 (6 credits). Courses in either or both departments intended to introduce the student to comparative methodology and practice selected from French 351-352, 371-372; German 351-352, 371-372; Italian 351-352; Spanish 351-352, 369-370; English 452 (6 credits), 461-462, 472, 475-476, 485-486. Remaining courses are to be distributed roughly equally among two or more bodies of literature, normally a part of the literature of two nations or peoples; courses acceptable include those in Foreign Languages numbered above 300 and those in English numbered above 400. The division of the concentration must include one course, given in either the Department of Foreign Languages or the Department of English which is in the main an undergraduate thesis of a scholarly or critical nature, concerned with relationships and characteristics of the two bodies of literature in which the student is professing interest (such courses are not numbered in the 1949–1950 catalogue) (8 credits). *Related subjects* (14 credits)—To be selected according to one of the following plans: a. Courses in one foreign language other than those selected for concentration in the major subject (14 credits). b. Courses in social sciences and the humanities to be selected in consultation with the adviser (14 credits).

Students selecting a field of concentration in foreign languages who wish to qualify for a secondary teacher's certificate should consult the School of Education (see pp. 157–162) concerning requirements.

Courses numbered above 300 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 300 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 chairman of the department, a given course numbered above 300 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 359a).

For all foreign-languages courses numbered "104" the prerequisite is three years of high school work or courses 101, 102, and 103 in the same language.

Foreign Languages

501. FOREIGN LANGUAGE THESIS COURSE. Open only to candidates for the master's degree.
Six credits.

French

101. FIRST YEAR FRENCH. Drill in the essentials of grammar. Elementary composition and conversation.
First semester. Five credits. Staff.

102. FIRST YEAR FRENCH (Continued). Grammar, composition and conversation. Translation of simple prose texts.
Prerequisite: French 101 or one year of high school French. *Second semester. Five credits.* Staff.

103-104. SECOND YEAR FRENCH. Readings from modern French prose writers. A review of grammar. Conversation and composition.
Prerequisite: French 101-102 or two years of high school French. *Three credits each semester.* Gottardi.

351-352. THE FRENCH NOVEL. Rapid reading of masterpieces of French fiction: Balzac, Sand, Mérimée, Zola, Daudet, etc.
Prerequisite: French 103-104. *Two credits each semester.*

353-354. FRENCH POETRY. A study of the French lyric poets from Villon to contemporary writers.
Prerequisite: French 103-104. *Two credits each semester.*

355-356. INTERMEDIATE FRENCH COMPOSITION AND CONVERSATION. This course should be taken simultaneously with the first year junior-senior reading courses in French.
Prerequisite: French 103-104. *Two credits each semester.*

357-358. 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: French 103-104. *Two credits each semester.*

359-360. 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 103-104. *Two credits each semester.*

369-370. FRENCH CLASSIC DRAMA. The development of the drama in France with special study of the works of Corneille, Racine, and Moliére.
Prerequisite: French 103-104. *Two credits each semester.*

371. CONTEMPORARY FRENCH DRAMA. A study of French plays of the twentieth century.
Prerequisite: French 103-104. *First semester. Two credits.*

372. 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 103-104. *Second semester. Two credits.*

373-374. ADVANCED FRENCH COMPOSITION AND CONVERSATION. Includes a study of French epistolary style. This course should be taken simultaneously with the second year of junor-senior reading courses in French.
Prerequisite: French 103-104. *Two credits each semester.*

381-382. THE EIGHTEENTH CENTURY IN FRENCH LITERATURE. A study of the works of Montesquieu, Voltaire, Rosseau, etc.
Prerequisite: French 103-104. *Two credits each semester.*

389-390. FRENCH PHONETICS. A study of pronunciation on the basis of practical phonetics. This course is especially arranged for prospective teachers of French.
Prerequisite: French 103-104. *Two credits each semester.* Gottardi.

German

101. FIRST YEAR GERMAN. A systematic study of grammar, elementary composition and conversation.
First semester. Five credits. Melz in charge.

102. FIRST YEAR GERMAN (Continued). Grammar and composition. Reading of easy prose and poetry.
Prerequisite: German 101 or one year of high school German. *Second semester. Five credits.* Melz in charge.

103-104. INTERMEDIATE GERMAN. Grammar review. Reading of German short stories, with exercises in conversation and composition.
Prerequisite: German 101-102, or two years of high school German. *Three credits each semester.* Melz in charge.

109-110. INTERMEDIATE PRESCIENTIFIC GERMAN. 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 101-102, or two years of high school German. *Three credits each semester.* Melz in charge.

351-352. THE GERMAN "NOVELLE." The development of the "Novelle" from the Romantic period to modern times: Hauff, Tieck, Hoffmann, Ludwig, Storm, Keller, Meyer, Mann, etc. Rapid reading and discussion.
Prerequisite: German 103-104. *Two credits each semester.* Melz.

355-356. INTERMEDIATE GERMAN COMPOSITION AND CONVERSATION. This course should be taken with the first year of Junior-Senior reading courses in German.
Prerequisite: German 103-104. *Two credits each semester.* Melz.

357-358. 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: German 103-104. *Two credits each semester.* Melz.

359-360. 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 103-104 or 109-110. *Two credits each semester.*

369-370. GERMAN CLASSICS. Reading and technical study of representative works of Lessing, Schiller, and Goethe.
Prerequisite: German 103-104. *Both semesters. Two credits each semester.*

371-372. NINETEENTH CENTURY GERMAN DRAMA. A study of the German drama from Romanticism to Naturalism: Kleist, Grillparzer, Hebbel, Hauptmann, Schnitzler, etc.
Prerequisite: German 103-104 or the equivalent. *Two credits each semester.* Melz.

375-376. GOETHE. *First semester:* Der junge Goethe (1749–1775). Poems, *Götz von Berlichingen, Werther, Dichtung und Wahrheit.* Lectures on Goethe and "Sturm und Drang." *Second semester: Faust.* Complete reading of part I. Selected readings and discussions of part II. Lectures on Goethe in Weimar (1775–1832).
Prerequisites: German 103-104. *Both semesters. Two credits each semester.* Melz.

379-380. ADVANCED COMPOSITION. A study of German epistolary style, business correspondence, free composition. This course should be taken simultaneously with the junior-senior reading courses.
Prerequisite: German 103-104 or 109-110. *Two credits each semester.*

Italian

101. FIRST-YEAR ITALIAN. Elementary grammar, composition, and conversation. Reading of modern Italian prose.
First semester. Five credits. Gottardi in charge.

102. FIRST-YEAR ITALIAN (Continued). Grammar, composition, and conversation. Translation of modern Italian prose and poetry.
Prerequisite: Italian 101 or one year of high school Italian. *Second semester. Five credits.* Gottardi in charge.

103-104. INTERMEDIATE ITALIAN. Grammar review. Reading of prose and poetry. Exercises in conversation and composition.
Prerequisite: Italian 101-102, or two years of high school Italian. *Three credits each semester.* Dandini.

351-352. THE ITALIAN NOVEL. Rapid reading of masterpieces of modern Italian fiction: Manzoni, Fogazzaro, Verga, etc.
Prerequisite: Italian 103-104. *Two credits each semester.* Gottardi.

353-354. 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 103-104. *Two credits each semester.* Gottardi.

355-356. INTERMEDIATE COMPOSITION.
Prerequisite: Italian 103-104. *Two credits each semester.* Gottardi.

Latin

101. FIRST-YEAR LATIN. Drill in the essentials of Latin grammar. Word study and composition. Roman life and customs.
First semester. Five credits. Murgotten.

102. FIRST-YEAR LATIN (Continued). Translation of easy Latin prose. Composition. Roman antiquities.
Prerequisite: Latin 101 or one year of high school Latin. *Second semester. Five credits.* Murgotten.

103. CICERO. Orations. Study of Roman law and government.
Prerequisite: Latin 102 or two years of high school Latin. *First semester. Three credits.* Murgotten.

104. VERGIL. First six books of the *Æneid.* Study of classic myths.
Prerequisite: Latin 103 or three years of high school Latin. *Second semester. Three credits.* Murgotten.

351-352. ADVANCED LATIN. Selected readings of Latin prose. History of Latin literature. Composition.
Prerequisite: Latin 104 or four years of high school Latin. *Two credits each semester.*

353-354. LATIN LYRIC POETRY. Horace and Catullus.
Prerequisite: Latin 104 or four years of high school Latin. *Two credits each semester.*

Portuguese

361-362. PORTUGUESE. An intensive rapid reading course in Portuguese based on the language as spoken in Brazil. Grammar, composition, and conversation. Offered only as a free elective and may not be counted in a field of concentration or towards meeting the language requirement.
Prerequisite: Course 103-104 in any romance language or Latin or the equivalent. *Three credits each semester.* Gottardi.

371-372. PORTUGUESE-AMERICAN LITERATURE. This course is based on a study of literary works by Brazilian writers. Discussions of the general cultural, social, and economic phases of Brazilian life are included.
Prerequisite: Portuguese 361-362 or the equivalent. *Two credits each semester.*

Spanish

101. First-Year Spanish. Drill in the essentials of grammar. Elementary composition and conversation.
First semester. Five credits. Gottardi in charge.

102. First-Year Spanish (Continued). Grammar, composition and conversation. Translation of simple prose and poetry.
Prerequisite: Spanish 101 or one year of high school Spanish. *Second semester. Five credits.* Gottardi in charge.

103-104. Second-Year Spanish. Readings from modern Spanish writers. A review of grammar. Conversation and composition.
Prerequisite: Spanish 101-102 or two years of high school Spanish. *Three credits each semester.* Melz in charge.

351-352. The Modern Spanish Novel. Rapid reading of masterpieces of Spanish fiction: Galdós; Valdés; Ibáñez; etc.
Prerequisite: Spanish 103-104. *Two credits each semester.* Kline.

353-354. The "Ensayistas." A study of representative critical and esthetic prose revealing Spanish thought from the eighteenth century to modern times.
Prerequisite: Spanish 103-104. *Two credits each semester.* Dandini.

355-356. Intermediate Spanish Composition and Conversation. This course should be taken with the first-year of junior-senior reading courses in Spanish.
Prerequisite: Spanish 103-104. *Two credits each semester.* Dandini.

357-358. 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: Spanish 103-104. *Two credits each semester.* Gottardi.

367-368. Early Spanish Novel. Reading of Spanish prose of the sixteenth, seventeenth, and eighteenth centuries. A study of novelistic movements. Montalvo, Montemayor, Cervantes, Quevedo. Collateral reading.
Prerequisite: Four credits of junior-senior work. *Two credits each semester.*

369-370. Modern Spanish Drama. A study of Spanish dramatic literature from the golden age to the twentieth century.
Prerequisite: Spanish 103-104. *Two credits each semester.* Dandini.

371-372. Spanish-American Literature. Prose and poetry.
Prerequisite: Spanish 103-104. *Two credits each semester.* Melz.

379-380. 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 103-104. *Two credits each semester.* Melz.

381-382. Spanish Classic Drama. Literature of the sixteenth and seventeenth centuries—Lope de Vega; Tirso de Molina, etc. *Prerequisite:* Four credits junior-senior work. *Two credits each semester.* Gottardi.

Geography

Assistant Professor Thompson.

101. Survey of World Geography. A study of the natural environment and human use regions of the world and their interrelationships with emphasis on map work and place location. *Either semester. Three credits.*

103. Physical Geography. A survey of climatic phenomena, land forms, vegetation, soils, and natural resources with special reference to the significance of these factors on man's activities. Satisfies natural science requirements. *First semester. Three credits.*

109. Climatology. An outline of climatic elements, and a study of world climates with emphasis on their geographic significance. Satisfies natural science requirements. *Second semester. Three credits.*

359. Geography of North America. A regional analysis of the interrelationships of the physical setting, agriculture, transportation and marketing, mineral industries, and manufacturing. Special emphasis on the United States. *Prerequisite:* Geography 101, 103, or by permission. *First semester. Three credits.*

455. Geography of Asia. An analysis of the natural resources, agriculture, industry, and potential of the Asiatic Countries with special emphasis on China and the Soviet Union. The Soviet Union is dealt with here in its entirety even though it is not wholly on the Asiatic Continent. *Prerequisites:* Geography 101, 103, or by permission. *Second semester. Three credits.*

Geology

Professor Gianella (Chairman of Department); Assistant Professors Prince, Thompson; Mr. Scull.

101. Physical Geology. An elementary 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. *Either semester. Three credits.* Staff.

102. 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 101 or 110. *Either semester. Three credits.*

110. ENGINEERING GEOLOGY. (Engineering and Agricultural students only.) 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. Staff.

211. DETERMINATIVE MINERALOGY. The first few weeks are devoted to elementary crystallography followed by the determination of the more common minerals, chiefly by means of their physical properties.

Perequisite: Chemistry 101, 102, or the equivalent. *First semester. Two credits.* Fee $2.

212. BLOWPIPE ANALYSIS. The determination of minerals by blowpipe analysis.

Prerequisite: Chemistry 101, 102, or the equivalent, and Geology 211. *Second semester. Two credits.* Fee $3. Prince, Scull.

214. DESCRIPTIVE MINERALOGY. Lectures and recitations on the classification, characteristic properties, occurrence, association, genesis, and uses of the more important minerals, illustrated by typical specimens.

Prerequisite: Geology 211. *Second semester. Two credits.* Prince, Scull.

325. ADVANCED MINERALOGY. Advanced study of either blowpipe analysis, crystallography, or the determination of minerals by their optical properties.

Prerequisites: Geology 211, 212, and 214. *Either semester. One or two credits.* Fee $2. Gianella, Prince.

351. PETROLOGY. Laboratory study of rocks and rock-forming minerals in hand specimens. Lectures on the character, origin, and classification of rocks.

Prerequisite: Physics 151-152 or 203-204, Geology 101 or 110, 102, 211, and 212. *First semester. Two credits.* Fee $2. Prince, Scull.

352. PETROGRAPHY. Lectures on the genesis of rocks, and the study of thin sections of rock-forming minerals and rocks under the petrographic microscope.

Prerequisite: Geology 351. *Second semester. Three credits.* Fee $2. Gianella.

353. STRATIGRAPHIC PALEONTOLOGY. A study of invertebrate fossils, and the application of paleontologic methods to stratigraphy.

Prerequisite: Geology 101 or 110, and 102 (Zoology 103 recommended). *First semester. Three credits.*

354. GEOLOGIC REPORTS. Study and practice in the preparation, illustration, and oral presentation of geologic reports.
Prerequisite: Geology 351. *Second semester. Two credits.* Gianella,

360. ECONOMIC GEOLOGY OF THE NONMETALS. Geology of ground water and the occurrence, distribution, origin, and economic value of other nonmetals.
Prerequisite: Geology 101 or 110, 211, 212, and 214. *Second semester. Three credits.* Prince.

370. FIELD GEOLOGY. Instruction in field methods and investigation of geologic features of several areas. Transportation is provided by the S. Frank Hunt Foundation.
Prerequisite: Geology 211, 212, 214. *First semester. One credit.* Staff.

382. STRUCTURAL GEOLOGY. A study of the deformation of the earth's crust.
Prerequisite: Junior standing. *First semester. Three credits.*

471. SUMMER FIELD GEOLOGY. (S.F. Hunt Geologic Foundation Field Course). A six-weeks field study beginning about June 10 in a previously unmapped Nevada mining district selected for its variety of petrologic, stratigraphic, and structural problems, its mineralization, and availability of aerial photographs or other suitable base maps. On the basis of detailed stratigraphic studies, map units will be selected and accurately plotted on a large-scale base by plane table methods. Individual field party manuscript maps will be assembled into a finished geologic map. Geologic cross-sections and mine maps will also be prepared.
Prerequisites: Senior standing and/or approval of Chairman, Department of Geology. (Prospective registrants must be approved prior to May 1 and registration will probably precede the opening date of summer school.) *Six credits.* Fee (including registration): $75. In addition, $90 to cover cost of board will be assessed in advance, any unexpended portion of which will be refunded upon conclusion of course.
NOTE—Geology 470 may be substituted for Civil Engineering 258 (summer surveying). Staff.

430. PETROLEUM GEOLOGY. Principles of the occurrence and accumulation of petroleum.
Prerequisite: Geology 351. *Second semester. Three credits.* Scull.

440. GEOMORPHOLOGY. Development and interpretation of the relief features of the earth.
Prerequisite: Geology 101 or 110, and 102, 382. *Second semester. Three credits.* Scull.

461. ECONOMIC GEOLOGY OF THE METALS. The geology of ore deposits, including distribution, origin, mode of occurrence, and alteration; with special reference to the more important mining districts of North America.

Prerequisite: Geology 211, 212, 214, and 351 (Geology 352 recommended). *First semester. Three credits.* Gianella.

479. GEOLOGY PROJECT. Original investigation of a geologic problem.

Prerequisite: Geology 351, 352, and 360, or equivalent training. *Either semester. Two credits.* May be repeated for credit as 479a, b, etc. Staff.

480. GEOPHYSICAL METHODS. Principles of geophysics and their geologic application.

Prerequisites: Geology 351 and 382, Mathematics 151-152, and Physics 203-204. *First semester. Three credits.* Scull.

485. SEMINAR. Library work and reports on topics of geologic interest.

Second semester. One credit. May be repeated for credit as 485a, b, etc. Staff.

579. ADVANCED GEOLOGIC INVESTIGATION.

Credits and fee to be arranged according to work undertaken. *Either semester.* Staff.

599. THESIS.

Either semester. Six to ten credits. Fee to be arranged according to work undertaken. Staff.

GERMAN

(See Foreign Languages)

HISTORY AND POLITICAL SCIENCE

Professors HICKS (Chairman of Department), SMITH; Associate Professors HUTCHESON, AUCHAMPAUGH[1]; Assistant Professor ULPH; Mr. ANDERSON.

REQUIREMENTS FOR FIELDS OF CONCENTRATION IN HISTORY AND POLITICAL SCIENCE

1. HISTORY. *Major-interest subject* (30 credits)—History 101-102 (6 credits), 105-106 (6 credits), and 18 additional credits to be selected from courses in history numbered above 300 and political science courses 416 and 427. *Related subjects* (20 credits)—Courses to be selected in consultation with the adviser. Choice of one of the following: a. 20 credits in economics, excluding business; b. 20 credits from Art 115, 261, 362; Psychology 201, 361, 362; Philosophy 101, 102, 351, 352; Geography 103, 359, 455; c. 20 credits in political science, excluding 301-302; d. 20 credits in American, English, and European literature, English 423, 424, 415, 416; e. 20 credits in foreign language literature in courses numbered 300 and above; f. 20 credits in psychology; g. 20 credits in sociology. Certain deviations may be allowed in exceptional cases.

2. POLITICAL SCIENCE. *Major-interest subject* (30 credits)—Political Science 101-102 (6 credits), 105-106 (4 credits) and 20 additional credits to be selected from courses in political science numbered above 300, excluding 301-302, and history courses 341-342, 395, 405, 408, 451-452. *Related subjects* (20 credits)—Courses to be selected in consultation with the adviser. Choice of one of the following: a. 20 credits in economics, excluding business; b. 20 credits in history; c. 20 credits from

[1]Deceased, 1948.

Geography 103, 359, 455; Philosophy 101, 102, 107, 108, 351, 352, 353, 354; Psychology 201, 361, 362, 411, 412; d. 20 credits in psychology; e. 20 credits in sociology. Certain deviations may be allowed in exceptional cases.

Students selecting a field of concentration in history and political science who wish to qualify for a secondary teacher's certificate should consult the School of Education (see pp. 157–162) concerning requirements.

Students desiring a better comprehension of the Constitutions of the United States and Nevada than can be obtained in Political Science 301 and 302, and students desirous of conforming to legal requirements in certain other States, should take Political Science 101 and 102.

Any course in history or political science is open to students with fields of concentration in other departments, subject only to the consent of the instructor and to the regulation that courses numbered above 300 are for juniors and seniors.

Political Science 301 is not open to students who take Political Science 101; Political Science 302 is not open to students who take Political Science 102. Students who take Political Science 101 after taking 301 will receive only two credits in 101; students who take 102 after taking 302 will receive only two credits in 102.

History

101-102. UNITED STATES. Colonial times to the present: Social, political and diplomatic.

Three credits each semester. Open to freshmen and sophomores. Hicks, Hutcheson.

105-106. EUROPEAN CIVILIZATION. The development of civilization in Europe from the Roman Empire to the present. Designed to furnish perspective for the understanding of the present-day world.

Open to freshmen and sophomores. *Three credits each semester.* Ulph, Hutcheson.

303. UNITED STATES; COLONIAL PERIOD. History of the English colonies, 1607-1776; with some attention to the influence of Spain and France.

First semester. Two credits.

305. UNITED STATES, 1776-1861. The Revolution; constitution-making; problems of peace; War of 1812; domestic problems; slavery and State rights; the Oregon question; Texas; the Mexican War.

First semester. Three credits.

306. UNITED STATES SINCE 1861. The Civil War; reconstruction; economic and diplomatic affairs; the Far West; the tariff; war with Spain; the World War and its aftermath.

Second semester. Three credits.

312. THE WESTWARD MOVEMENT IN THE UNITED STATES. The westward movement of peoples from the Atlantic Coast, and the influence of this movement upon United States history.

Second semester. Two credits.

314. WESTERN NORTH AMERICA. The Far West; The Rocky Mountains and West Coast States; activities of the Spanish, Russians, British, and Americans on the Pacific Coast.
Second semester. Three credits. Hutcheson.

331-332. NEVADA HISTORY. First-half ends at Statehood and early Comstock, about 1866.
One-hour lecture weekly, added credit for extra reading reports. *One, two, or three credits each semester.* Hutcheson.

341-342. AMERICAN CONSTITUTIONAL HISTORY. A narrative and interpretative study of the origin and growth of the institutional forms and principles which have crystallized into the American constitutional system.
Three credits each semester.

371-372. ANCIENT CIVILIZATION. Origins of Western civilization in the Near East, Greece, and Rome: art, culture, society, and politics.
Two credits each semester. Hutcheson.

376. MEDIEVAL HISTORY, 400-1500. Civilization of medieval Europe: culture, the Church, and law. Background of modern nations.
Second semester. Three credits.

393-394. ENGLAND AND THE BRITISH EMPIRE. History of England and its empire: social, economic, and political. Background of English literature and law. Second semester begins at Elizabethan age.
Two credits each semester. Hutcheson.

395. ENGLISH CONSTITUTIONAL HISTORY. The rise and development of institutions—such as free, representative government, the jury system, and English law—which were transmitted to Colonial America to become the basis of government in the United States.
First semester. Three credits. Hutcheson.

405. RECENT EUROPEAN HISTORY, 1870-1914. Background of the World War: nationalism, colonial expansion, problems of peace, and the collapse of world order.
First semester. Three credits. Ulph.

408. EUROPE SINCE 1914. A detailed analysis of a turbulent era.
Second semester. Three credits. Ulph.

411-412. THE FRENCH REVOLUTION AND NAPOLEON. An intensive study of the great epoch extending from 1789 to 1815.
Two credits each semester. Ulph.

421-422. HISTORY OF RUSSIA. Foundations of the Russian state and society. The imperial and revolutionary eras.
Three credits each semester. Ulph.

425-426. EUROPEAN THOUGHT AND CULTURE. An inquiry into the nature of the relationship between material culture and ideas as expressed through the major intellectual movements and institutional changes in European history from the seventeenth century to the present time.
Three credits each semester. Ulph.

431-432. MODERN GERMANY AND AUSTRIA. The problem and achievement of unification; Germany as a world factor.
Three credits each semester. Ulph.

441-442. LATIN AMERICA. History of Spanish and Portuguese America from the age of discovery to the present: domestic and international.
Two credits each semester. Hicks.

451-452. THE FAR EAST. Domestic and international relations of China and Japan from the earliest times to the present.
Two credits each semester. Hicks.

497-498. UNDERGRADUATE SEMINAR.
Credits arranged. Staff.

501-502. GRADUATE SEMINAR.
Credits arranged. Staff.

591-592. GRADUATE THESIS.
Either semester. Credits arranged. Staff.

Political Science

101-102. AMERICAN GOVERNMENT. A basic course dealing with the organization, the working principles, structural problems, and functional processes of the federal, state, and local governments of the United States; and with recent trends in administration and constitution-making. 101, federal government; 102, state and local.
Open to freshmen and sophomores. *Three credits each semester.* Smith.

105-106. COMPARATIVE GOVERNMENT. A study of the frameworks, functions and motivating ideals of various representative democratic and totalitarian governments.
Open to freshmen and sophomores. *Two credits each semester.* Smith, Hutcheson.

301-302. CONSTITUTIONS OF THE UNITED STATES AND NEVADA. Origins, history, and essentials of these constitutions—with emphasis upon devotion to American institutions and ideals. 301, United States Constitution; 302, Nevada Constitution.
One credit each semester. Hicks, Smith, Ulph.

357. ELEMENTS OF POLITICAL SCIENCE. An introduction to certain concepts, distinctions and terminology necessary for an

intelligent approach to a study of the science of politics; theories as to the origin, nature, and functions of the State.
First semester. Three credits. Smith.

369. HISTORY OF POLITICAL THOUGHT. A survey course designed to portray the historical development of political thinking from the classical period to the present. A discussion of types of inquiry, or methods of approach.
First semester. Two credits. Smith.

404. INTERNATIONAL LAW AND ORGANIZATION. The elements of international law, and a study of organizational forms as they relate to international law and procedure.
Second semester. Two credits. Smith.

416. POLITICAL PARTIES. The party system in the United States; the history, composition, and functions of parties—their organization and methods.
Second semester. Three credits. Smith.

418. PUBLIC PERSONNEL ADMINISTRATION. A study of methods of recruiting, examining, training, and of other techniques utilized in the management of employees in government service.
Second semester. Two credits. Smith.

427. AMERICAN DIPLOMACY. Foreign relations of the United States; principles, policies, and methods. Monroe Doctrine; arbitration; Open Door policy; freedom of the seas; disarmament; cooperation.
First semester. Two credits. Smith.

431-432. PRINCIPLES OF PUBLIC ADMINISTRATION. Principles and problems of public administration; the budget; forms of administrative action; types of control; administrative law.
Two credits each semester. Smith.

497-498. UNDERGRADUATE SEMINAR.
Credits arranged. Staff.

501-502. GRADUATE SEMINAR.
Credits arranged. Staff.

591-592. GRADUATE THESIS.
Either semester. Credits arranged. Smith.

HOME ECONOMICS

Professor SWIFT (Chairman of Department); Associate Professor POPE; Assistant Professor MARSH; Miss CARROLL, Mrs. PICO.

The following curricula are offered in the Department of Home Economics:

1. Teaching and Extension work.

2. Foods and Nutrition.

This major gives preliminary training for hospital dietitians and institutional managers. Graduates of this course are eligible for a 12-month internship in an accredited hospital or institution. This is a requirement of The American Dietetics Association.

3. General Major (see p. 189).

Students concentrating in the College of Arts and Science and wishing to select related subjects in home economics should consider the following courses, open to men and women:

Freshmen	*Sophomore*
Orientation, 103	Food and Nutrition, 250
Foods, 131-132	Care of Family Health, 253
Clothing, 115-116-117	Art and Science of Meal Service, 255
	Nutrition and Health, 334
Junior	*Senior*
Nutrition, 334	Child Development, 475-476
Cookery for Men, 357	Home Management, 486
Tailoring, 366	Home Decoration, 487
Family Clothing Problem, 367	Household Equipment, 488
Costume, 368	Experimental Foods, 494

103. ORIENTATION. A discussion of opportunities in the field of home economics as a basis for the choice of major. Also application of standards of social conduct to daily living.

First semester. Two lectures. Two credits. Swift.

115. CLOTHING. A study of the college girl's budget, good grooming, clothing selection and construction of garments made by hand and machine.

First semester. One lecture. Two laboratories. Three credits. Fee $4. Pope.

116. TEXTILES FOR THE FAMILY. A study of construction of fabrics and fiber content, their selection, care, and use. New textiles and new finishes. Field trips.

Second semester. Two lectures. One laboratory. Three credits. Fee $4. Pope.

118. COSTUME DESIGN AND CONSTRUCTION. Application of color, line, and the principles of art in the selection of clothing for the individual. Fitting and simple pattern design.

Second semester. One lecture. Two laboratories. Three credits. Fee $4. Pope.

131. FOOD FOR THE FAMILY. A study of food including the principles of selection, preparation, care and use of foods for maintaining the nutrition of the individual and his family. Preparation of family meals with emphasis on breakfasts and lunches.

First semester. One lecture. Two laboratories. Three credits. Fee $8. Staff.

132. FOOD FOR THE FAMILY. A study of food, including the

daily food patterns, standards for selection, care, cost, and preparation of family meals, with emphasis on dinners.
Second semester. One lecture. Two laboratories. Three credits. Fee $8. Staff.

133. NUTRITION FOR THE COLLEGE STUDENT. Relation of food to physical fitness.
First semester. Three lectures. Three credits. Marsh.

250. FOOD AND NUTRITION. Designed for the prenurse. This course deals with food preparation, service and applied nutrition.
Second semester. Alternate years. Two lectures. One laboratory. Three credits. Fee $5. Marsh.

253. CARE OF FAMILY HEALTH. A study of State and Community Agencies building good-health programs and care of health in the home.
First semester. Two lectures. One laboratory. Three credits. Fee $2. Marsh.

255. THE ART AND SCIENCE OF MEAL SERVICE. Student actually purchases, prepares and serves family meals at various cost levels. All types of service are experienced.
Prerequisite: 131-132 or equivalent. *One lecture. Three laboratories. Four credits.* Fee $15. Swift.

334. NUTRITION. Designed for majors in nutrition and any other student who meets the prerequisites of organic chemistry and physiology.
Offered in alternate years. Three lectures. Three credits. Marsh.

357. COOKERY FOR MEN. A service course for men who desire to learn short cuts of cookery on the grill, in the camp, or on the range.
First semester. One lecture. Two laboratories. Three credits. Fee $8. Marsh.

366. TAILORING AND ADVANCED CLOTHING. A study of tailoring techniques, construction of coats, suits, and dresses. Advanced problems in construction.
Second semester. One lecture. Two workshops. Three credits. Fee $4. Pope.

367. THE FAMILY CLOTHING PROBLEMS. Study of wardrobe needs of the family and problems relating to purchase, care and construction of the family clothing.
First semester. One lecture. Two workshops. Three credits. Fee $4. Pope.

368. COSTUMING. Application of color and design to creative costuming. Helpful to students in physical education and the elementary grade teacher.
Second semester. Two lectures. Two credits. Given alternate years. Offered 1950. Pope.

402. Home Economics Seminar.
Hours and credits to be arranged. Staff.

436. Diet in Disease. A study of the adaptation of diet in disease in which nutrition is a primary concern. Continued application of material in 334. For nutrition majors and any other who wishes to broaden his knowledge of nutrition.
Second semester. Offered alternate year with 334. Two lectures. One laboratory. Three credits.

475. Child Development. Preconceptional care, pregnancy, and childbirth; the factors which contribute to the physical and mental health of the mother, and the well-being of the family group. Growth and development of the child during the prenatal period and early infancy. Observations of children are arranged.
Prerequisite: Junior or senior standing, or consent of the instructor. *First semester. Three lectures. Three or four credits.* Carroll.

476. Child Development. Growth and behavior characteristics of the preschool child, with principles for guidance. The home environment, and the relationships within the family, as significant factors in the child's development during the important foundational years.
Second semester. Three lectures. Three or four credits. Carroll.

483-484. Special Problems in Foods. Field work for seniors or graduates.
Hours to be arranged. Three credits. Fee $8. Swift.

486. Home Management. This gives men and women an opportunity to study family goals and choices, the wise use of time, skills, and kitchen arrangement; the limitations and uses of family income; the scientific attitude for the present and future security.
Second semester. Three lectures. Three credits. Marsh.

487. Home Decoration. A study of house plans, suitable furnishings, with appreciation of art principles. Cost and care of furnishings and accessories. Field trips.
First semester. One lecture. Two laboratories. Three credits. Fee $3. Pope.

488. Household Equipment. Selection of household equipment. Points of construction, operation, cost, care and repair.
Offered 1950. Second semester. One lecture. One laboratory. Two credits. Fee $2. Pope.

491. Education for Foods and Nutrition Majors. This course meets the requirements of the American Dietetic Association.
Given alternate years. First semester. Three lectures. Three credits. Swift.

494. EXPERIMENTAL COOKERY. Development of experimental methods; application to investigations in cookery. Preparation for independent investigation.

Prerequisites: Home Economics 131-132. *Second semester. One lecture. One laboratory. Two credits.* Fee $15. Swift.

495. SPECIAL PROBLEMS IN CLOTHING. Field work for seniors or graduates.

Second semester. Hours to be arranged. Three credits. Fee $4. Pope.

496. QUANTITATIVE COOKERY. Meal planning, food production, purchasing and service for large groups.

Prerequisites: Home Economics 131-132. *Offered 1950. Second semester. One lecture. Two laboratories. Three credits.* Fee $4. Marsh.

498. INSTITUTION ORGANIZATION AND MANAGEMENT. A study for equipment, furnishings, floor plans, cost control, personnel, labor, and sanitation laws governing institutions.

Offered 1950. Second semester. Three lectures. Three credits. Marsh.

499. DEMONSTRATION. Principles and techniques for commercial and classroom demonstrations. Audiences—campus and community.

First semester. One lecture. Two laboratories. (Given in alternate years.) *Three credits.* Fee $12. Swift.

HORTICULTURE

102. ELEMENTS OF HORTICULTURE. A survey course of the field of horticulture; fruit growing, vegetable gardening, floriculture, and ornamental gardening.

No prerequisites. Second semester. Two lectures; one laboratory. Three credits. Staff.

201. ORNAMENTAL HORTICULTURE. The identification of and the fundamental principles involved in the culture of trees, shrubs, herbaceous perennials, and annuals, with application to the beautifying of the home grounds.

No prerequisites. First semester. Two credits. Staff.

204. PLANT PROPAGATION. The principles involved in the multiplying of horticultural plants by seeds, cuttings, grafting, etc. The origin and development of new varieties.

Prerequisites: Horticulture 102 or 201. *Second semester. Two credits.* Staff.

353. FRUIT GROWING. The principles involved in the growing and care of fruit trees and of bearing-producing plants, applied primarily to the small home orchard and berry garden.

Prerequisite: Horticulture 102. *First semester. Three credits.* Staff.

354. DISEASE AND PEST CONTROL. The preventing and controlling of diseases and pests of horticultural plants. Spraying with insecticides and fungicides.

Prerequisite: Horticulture 102 or 201. *Second semester. Two credits.* Fee $2. Staff.

356. VEGETABLE GROWING. Fundamental principles involved in the growing of vegetable plants.
Prerequisite: Horticulture 102 or 201. *Second semester. Three credits.* Staff.

364. DISEASES OF HORTICULTURAL PLANTS. Same as Botany 364.

491. SPECIAL PROBLEMS. An intensive study of a special problem in the field of horticulture.
Prerequisite: Nine credits in horticulture or in a similar field. *First semester. One to three credits.* Graduate credit given with the consent of the instructor. Staff.

492. SPECIAL PROBLEMS. Same as 491 or a continuation thereof. *Second semester. One to three credits.* Staff.

Italian

(See Foreign Languages)

JOURNALISM

Professor HIGGINBOTHAM (Chairman of Department); Assistant Professor JANULIS; Mr. GRABAN, Cooperating Newspapermen.

REQUIREMENTS FOR A FIELD OF CONCENTRATION IN JOURNALISM

Major-interest subject (36 credits)—Journalism 101-102 (6 credits), 221-222 (6 credits), 351-352 (4 credits), 353 (3 credits), 367 (3 credits), 372 (2 credits), 379 (2 or 3 credits), 481-482 (4 credits), and five or six additional credits chosen with the approval of the adviser from among journalism courses numbered 300 and above. *Related subjects* (14 credits)—3 credit hours in English literature, 9 credit hours in the social sciences, and 2 credit hours in the aesthetics, all chosen with the counsel of the adviser, from the recommended supplementary courses listed under *The Course in Journalism* (page 147).

To complete the field of concentration in journalism or the four-year professional Course in Journalism, a student must earn an average of *at least* two grade points in his course in journalism.

General electives of students choosing a field of concentration in journalism should stress the social sciences and the humanities.

The Course in Journalism, leading to the degree *Bachelor of Arts in Journalism*, is the recognized professional education for the practice of journalism (page 148), and should be chosen by a student, whenever possible, in preference to a field of concentration in journalism.

101-102. INTERPRETING THE DAY'S NEWS. Study of the news of the day and the function of the newspaper, the news magazine, and news broadcasts in American life. A course both for students beginning the study of journalism and for those who wish an introduction to the intelligent following of the news as part of a general education. Open to all students. Course may be started with Journalism 101 or Journalism 102.
Three credits each semester. Staff.

221-222. News Gathering and Writing. What *makes* news, how news is obtained, and how news is written are studied and the principles applied in reporting news for the *U. of N. Sagebrush*, the Reno newspapers, and the United Press. Discussions and laboratory.

Prerequisite: Sophomore standing and the consent of instructor. *Three credits each semester.* Janulis and Graban.

231-232, 361-362, 491-492. Advanced Interpretation of the Day's News. Study and interpretation, upon an advanced level, of the news of the day. Both for students intending to practice journalism and for those who wish to continue their study of the news as part of a liberal education.

Prerequisite: Journalism 101-102. *Both semesters. One or two credits each semester.* Janulis.

351-352. News Editing. Copy reading, rewriting, headline writing, news evaluation, the mechanics of publishing and make-up, and similar duties of the newspaper copy editor.

Prerequisite: Journalism 221-222 and the consent of the instructor. *Two or three credits each semester.* Janulis.

353. The Evolution of the Newspaper as a Social Institution. The development of the newspaper in America, from colonial times to the present, especially in relation to political, economic, and social movements. The men and the newspapers that created the traditions of modern journalism.

Open to juniors and seniors. *Three credits.* Higginbotham.

354. 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 221-222. *Three credits.* (Alternate years.) Higginbotham.

356-357. Advertising and Advertisement Copy Writing. Study of the principles of advertising (first semester) and their practical application in the writing of copy for newspapers, magazines, and radio stations (second semester).

Open to juniors and seniors. *Two credits each semester.* (Alternate years.) Graban.

365-366. Community Newspaper Management. Principles of journalism peculiar to the country weekly and small city daily, especially in Nevada. Editorial, circulation, and advertising management.

Prequisite: Journalism 221-222. *Two credits each semester.* (Alternate years.) Graban.

367. Editorial Writing. Study of the interpretation of contemporary events through the newspaper and magazine editorial, coupled with extensive practice in writing.

Prerequisite: Journalism 221-222 or upperclass standing and the consent of the instructor. *Two or three credits.* (Alternate years.) Higginbotham.

368. THE SPECIAL FEATURE ARTICLE. Study, writing, and marketing of the special feature article for magazines and newspapers.

Prerequisite: Journalism 221-222, or upperclass standing and demonstrated skill in writing. *Two credits.* (Alternate years.) Staff.

370. AGRICULTURAL JOURNALISM. The writing of news stories and feature articles on agricultural and home economics subjects for newspapers and magazines. Open only to upperclass students in the College of Agriculture.

Not acceptable toward the requirements of the Course in Journalism or the field of concentration in journalism. *Two or three credits.* (Given in alternate years.) Graban.

372. THE LAW OF THE PRESS. Study of state and federal laws affecting the reporting of news, the expression of opinion, advertising, the publication of newspapers and magazines, and radio broadcasting.

Prerequisite: Journalism 221-222. *One or two credits.* Higginbotham.

375. PICTORIAL JOURNALISM. Study of the principles of reporting news through photography and the application of them in practice work for various publications. Discussion and laboratory.

Prerequisite: Journalism 221-222. *Two credits.* (Alternate years.) Staff.

379. JOURNALISM AND SOCIETY. Sociological aspects of journalism, including public opinion, newspaper leadership and responsibility, ethics, censorship, propaganda, the world's press, and other contemporary problems.

Prerequisite: Journalism 221-222 or the consent of the instructor. *Two or three credits.* (Alternate years.) Higginbotham.

386. JOURNALISM OF THE AIR. The principles and practice of writing journalistic types—the news story, the column, features, advertising for broadcasting. Special emphasis is given to news processing.

Prerequisite: Journalism 221-222. *Two or three credits.* (Alternate years.) Jamulis.

387. JOURNALISM IN THE HIGH SCHOOL. An introduction to the teaching of journalism in high school and to the supervision of high school newspapers, magazines, and year books. Offered especially for students in English preparing to teach in Nevada high schools.

Not acceptable for the field of concentration in journalism or the four-year Course in Journalism. *Two credits.* (Alternate years.) Graban.

393-394, 395-396. INDEPENDENT STUDY. Aspects of journalism not covered by other courses.

Open only to juniors and seniors in the Course in Journalism or in the field of concentration in journalism who have attained an average grade of B in all their work. Hours to be arranged with individual students. *One credit each semester.* Higginbotham.

481-482. JOURNALISM INTERNSHIP. Reporting and copy reading as members of the staffs of the *Nevada State Journal*, the *Reno Evening Gazette*, the United Press Association, the Associated Press, and the *Carson City Nevada Appeal*; advertising work with Wilson Advertising Agency, the State Advertising Agency, or the Reno newspapers; or news or advertising work with Radio Station KOH or Radio Station KWRN.

Prerequisite: Open only to seniors in the Course in Journalism and senior students in journalism. Students will be assigned to internships in fields for which their courses in journalism have prepared them. *One, two, or three credits each semester.* Higginbotham and cooperators in journalism.

LATIN

(See Foreign Languages.)

LIBRARY SCIENCE

Professor HILL (Director of Libraries).

335. USE OF THE LIBRARY. Open to sophomores, juniors, and seniors in the College of Arts and Science. Classification and arrangement of books in the University Library; general principles of cataloging and filing; major reference works in all fields of knowledge; simple forms of bibliography making; intelligent use of the library.

Either semester. Two credits. Hill.

MATHEMATICS AND MECHANICS

Professor WOOD, Associate Professors BEESLEY (Chairman of Department), HARRIS; Assistant Professors DAVIS, MARTIN; Mrs. CARTER, Mr. DEMERS, Mr. HOUSER, Mr. TOMPSON, Mrs. VAN DYKE, Mrs. WILLIAMS.

REQUIREMENTS FOR A FIELD OF CONCENTRATION IN MATHEMATICS

1. MATHEMATICS. *Major-interest subject* (27-35 credits)—Mathematics 102, 110, 140, 231, 232, and 13 to 21 credits in courses selected from the following list and including at least two courses in each of two of the three branches. Algebra: 371, 372; Analysis: 351, 352, 425, 451, 452, 501, and 502; Geometry: 391, 392, 395, 401, 402. Mathematics 251-252 may be substituted for 231-232. *Related subjects* (15-23 credits)—Courses to be selected in consultation with adviser. Especially recommended are: Physics 203, 204, 205-206, and any upper division courses in Physics; French 359-360; German 109-110, 359-360. Beginning and intermediate courses in French or German or both are recommended for those who do not have a reading knowledge of those languages.

2. APPLIED MATHEMATICS. *Major-interest subject* (34 credits)—Mathematics 102, 110, 140, 251, 252, 341, 342, 351, 352, 425, 451, and 452 or 501.

Mathematics 151-152 may be substituted for 102, 110, and 140. *Related subjects* (16 credits)—Physics 203, 204, 205, 206, and 4 additional credits selected in consultation with the adviser. The comments regarding languages appearing under the field described above apply equally here.

Students selecting a field of concentration in mathematics who wish to qualify for a secondary teacher's certificate should consult the School of Education (see pp. 157–162) concerning requirements.

If two courses bear consecutive numbers and have a common description, the first is prerequisite to the second.

Placement Examination. During the orientation period preceding each fall registration a placement examination will be given. All entering freshmen in the College of Engineering must take this examination. Other students who wish to evaluate their backgrounds in high school algebra may arrange to take the examination.

A knowledge of calculus is prerequisite to all courses numbered above 300 except 371, 372, and 391, 392. These courses are open to a student who has a good record in some college level mathematics and can obtain the consent of the instructor. Courses numbered above 400 are usually offered in the semester indicated in the description but may be available at other times. Students desiring to take these courses should consult the department at each registration concerning this matter.

A. Refresher Algebra. A thorough review of algebra for students of the College of Engineering who fail to pass the placement examination. This course carries no university credit but may be used to remove entrance deficiencies.

Each semester. No credit. Van Dyke.

B. Plane Geometry. This course carries no university credit but may be used to remove entrance deficiencies.

Each semester. No credit. Van Dyke.

101. Intermediate Algebra. A second course in algebra for students who have had one year of algebra in the high school. No college credit allowed for students in the College of Engineering.

Each semester. Two credits. Staff.

102. Plane Trigonometry. A study of the trigonometric functions, identities, and the solution of triangles.

Prerequisite: Plane geometery and one year of high school algebra.
Each semester. Two credits. Staff.

110. College Algebra. Progressions, binomial theorem, logarithms, inequalities, systems of linear and quadratic equations, determinants, elementary theory of equations, permutations and combinations.

Prerequisite: Mathematics 101 or 1½ years of high school algebra.
Each semester. Three credits. Staff.

140. 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 be studied.

Prerequisite: Mathematics 110, 102. *Second semester. Three credits.*

151-152. 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 is recommended for all others who intend to specialize in mathematics or who desire mathematical preparation for scientific work. A placement examination will be given during the orientation period. Students who fail to pass this examination must complete Mathematics A before registering in Mathematics 151. Students who fail to carry Mathematics 151 will be transferred to Mathematics A. Mathematics 151, *first semester, five credits.* Mathematics 152, *second semester, five credits.* Staff.

202. SPHERICAL TRIGONOMETRY. A study of the spherical triangle with applications in astronomy and navigation. This course will furnish a desirable background for study of modern methods in celestial navigation.
Prerequisite: Mathematics 102. Given when requested by sufficient number of students. *Two credits.*

210. MATHEMATICS OF FINANCE. 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 110. *First semester. Three credits.* Carter.

220. 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 110. *Second semester. Three credits.* Houser.

231-232. DIFFERENTIAL AND INTEGRAL CALCULUS. The elements of the calculus with applications. Designed for students in the College of Arts and Science.
Prerequisite: Mathematics 110, 102, 140, or Mathematics 151, 152. Mathematics 231, *first semester, three credits.* Mathematics 232, *second semester, three credits.* Davis.

241-242. CALCULUS. A unified course in differential and integral calculus, with special emphasis upon the applications. Required of all students in the Mackay School of Mines.
Prerequisite: Mathematics 151-152. Mathematics 241, *first semester, three credits.* Mathematics 242, *second semester, three credits.* Tompson.

251-252. ENGINEERING CALCULUS. A more extensive course than 241-242. Required of all students of civil, electrical and mechanical engineering. Other engineering students who plan to take mathematics courses beyond Mathematics 342 should substitute this for 241-242.
Prerequisite: Mathematics 151, 152. Mathematics 251, *first semester, four credits.* Mathematics 252, *second semester, four credits.* Beesley and Staff.

290. SURVEY. Assigned reading and reports on topics of mathematical interest not covered in the usual courses. The group will meet weekly for presentation and discussion of reports. Open to students who have a definite interest in mathematics and who, in the opinion of the Staff, possess sufficient background to undertake the work.

One-half credit each semester. May be repeated for credit as 290a, 290b, and 290c. Staff.

301. HISTORY OF MATHEMATICS. Lectures and assigned readings on the history of mathematical science. Recommended for students preparing to teach mathematics in high school. Cannot be used for graduate credit.

First semester. Two credits.

331. TEACHING OF MATHEMATICS. See Education 331.

341-342. 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.

Prerequisite: Mathematics 241, 242; Physics 203. Mathematics 341, *first semester, three credits.* Mathematics 342, *second semester, two credits.*

351-352. DIFFERENTIAL EQUATIONS. The first semester is a study of techniques for the solution of ordinary differential equations with emphasis on geometrical and physical applications. The second semester emphasizes a deeper understanding of the theory of differential equations. It includes theorems on the existence of solutions of such equations, and the applications of the theory to topics in mathematics and physics.

Mathematics 351, *first semester, two credits.* Mathematics 352, *second semester, two credits.*

371. THE THEORY OF EQUATIONS. The course is concerned primarily with the classical elementary theory of equations. It includes also a discussion of determinants and a study of the Peano axioms for the natural numbers.

First semester, three credits. Given in alternate years. To be given 1949–1950. Davis.

372. INTRODUCTION TO MODERN ALGEBRA. Various topics of modern algebra are considered including the elementary theory of groups, rings and fields.

Prerequisite: Mathematics 371. This requirement may be waived with the consent of the instructor. *Second semester. Three credits.* (Given in alternate years. To be given 1949–1950.) Davis.

391-392. 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.

Mathematics 391, *first semester, two credits.* Mathematics 392, *second semester, two credits.* (Given in alternate years. Not to be given in 1949–1950.) Beesley.

395. SOLID ANALYTICAL GEOMETRY. A study of the plane, ellipsoid, paraboloid, hyperboloid, and the general equation of the second degree in three dimensional space.

Second semester. Two credits.

401-402. 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.

Mathematics 401, *first semester, two credits.* Mathematics 402, *second semester, two credits.* Alternates with Mathematics 391-392. Not to be given 1949–1950.

425. ADVANCED CALCULUS. A more rigorous study of the differential and integral calculus, with extensive applications to geometrical and physical problems.

Either semester. Three credits. Beesley.

451-452. ADVANCED MATHEMATICS FOR ENGINEERS. Vector analysis, partial differential equations, Fourier series, and other topics of importance in applied mathematics.

Prerequisite: Mathematics 425. *Three credits. Either semester.* Demers.

501. THEORY OF FUNCTIONS OF A COMPLEX VARIABLE. Deals with complex numbers, analytic functions, integration, infinite series, entire functions.

Prerequisite: Mathematics 425. *First semester. Three credits.* Beesley.

502. THEORY OF FUNCTIONS OF A REAL VARIABLE. The real number system. Elementary set theory, continuity, differentiability, integrals and related topics.

Prerequisite: Mathematics 425. *Second semester. Three credits.* Beesley.

550. SEMINAR. Library work and reports on various topics of mathematical interest.

Each semester. One to three credits each semester. May be repeated for credit as 550a, 550b, 550c. Except under special circumstances, total credits will be limited to four.

600. THESIS COURSE FOR GRADUATE STUDENTS.

Six credits. Staff.

COLLOQUIUM. Weekly meetings are held for the presentation of original work by members of the staff and by graduate students as well as for the study of known results taken from mathematical literature.

MECHANICAL ENGINEERING

Professor VAN DYKE (Chairman of Department); Associate Professor HARRIS; Mr. RYAN, Mr. SCHUMACHER, Mr. VAN TASSEL.

105-106. ENGINEERING DRAWING AND DESCRIPTIVE GEOMETRY. The course is intended to give the engineering student a sufficient knowledge and skill in drawing to enable him to make any drawing that may be required of him in his professional capacity. Second semester includes the construction of details from layouts, subassembly and assembly drawings, breakdown of a unit device, constructing all necessary drawings.

Prerequisites: Plane Geometry (Solid Geometry very desirable). Mathematics 151 and 152 to be taken concurrently with Mechanical Engineering 105 and 106. Required of all engineering students. *Two credits each semester.*

351. KINEMATICS OF MACHINERY. A study of the laws of motion of machinery preliminary to machine design. Includes analytical and graphical analysis of the motion of linkages, cams, gears, rolling bodies, trains of mechanisms, etc., and the forms of gear teeth and cams.

Prerequisite: Mathematics 341 (completed or concurrently taken); Physics 203-204; Mathematics 251-252. *First semester. Three credits.*

353. FUNDAMENTALS OF THERMODYNAMICS. Similar to Mechanical Engineering 355 and 356, but abbreviated so that it can be covered in one semester.

Prerequisite: Physics 203 and 204 and Mathematics 251 and 252. *First semester. Three credits.*

355. THERMODYNAMICS. Principles of engineering thermodynamics; properties of gases; thermodynamic processes of gases; gas cycles; internal combustion engines; air compressors and elements of different types of power plants.

Prerequisites: Physics 203 and 204, Mathematics 251 and 252. *First semester. Three credits.*

356. APPLIED THERMODYNAMICS. Additional work in thermodynamics; properties of vapors; thermodynamic processes of vapors; vapor cycles; steam engines; steam turbines.

Prerequisite: Mechanical Engineering 355. *Second semester. Three credits.*

457. MACHINE DESIGN. The application of the laws of kinematics, mechanics, and strength of materials to the design of various machine elements as bolts, belts, gears, flywheels, bearings, structural machine members, clutches, brakes, shafts, cylinders, cams, keys, couplings, etc.

Prerequisites: Mathematics 341-342; Civil Engineering 376; Mechanical Engineering 351. *First semester. Three credits.*

458. MACHINE DESIGN. A continuation of M. E. 457 with

more advanced machine design problems involving the integration of various machine elements and more comprehensive analysis of stress, fabrication, economics, etc.

Prerequisite: Mechanical Engineering 457. *Second semester. Three credits.*

464-465. MECHANICAL ENGINEERING LABORATORY. Laboratory experience in the use of the common instruments to demonstrate their capabilities and limitations particularly with reference to transient measurements. Measurement of mechanical, chemical, thermal and electrical energy, and some conversions and comparisons. Second semester includes the study of experimental thermodynamics involving internal combusion engines, steam engines, and refrigerators; principles of the flow of fluids, heat transfer, and air conditioning.

Prerequisites: Mechanical Engineering 353 or 355 and 356 completed or taken concurrently. Mechanical Engineering 464 is prerequisite to Mechanical Engineering 465. Required of all Mechanical Engineering students. Second and first semester, respectively. *Three credits each semester.* Fee $5 each semester.

471. HEAT-POWER ENGINEERING. Power plants, fuels, combustion, steam generators, turbines, heat transmission, and steam generator accessories.

Prerequisite: Mechanical Engineering 356. *First semester. Three credits.*

472. AIR CONDITIONING AND REFRIGERATION. Air conditioning for human comfort and industrial purposes, including heating and refrigeration.

Prerequisite: Mechanical Engineering 356. *Second semester. Three credits.*

476. MECHANICAL VIBRATIONS. Theory of mechanical vibrations and practical engineering applications to problems involving critical speeds and torsional vibrations of rotating machinery; vibrations of beams and plates; vibration isolation and damping, vibration absorbers, dynamic balancing of machines, etc. Lectures, laboratory demonstrations, experiments and problems.

Prerequisite: Mathematics 341-342; Mathematics 351; Physics 203-204; Civil Engineering 376. *Second semester. Three credits.*

477. INTERNAL COMBUSTION ENGINES. A study of modern internal combustion engines of the stationary, automotive and aeronautic types, including spark ignition and compression ignition. Thermodynamics for engine analysis, fuels, mixture requirements, combustion, detonation and its effects, efficiencies, engine performance, etc., are included.

Prerequisite: Mechanical Engineering 356. *Second semester. Three credits.*

Mechanic Arts

203. 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.
First semester. Two credits. Fee $5 per credit.

205. Machine Shop. An advanced course in gear cutting, face plate work, elementary die making and construction and use of special tools, jigs, and fixtures.
Prerequisite: Mechanic Arts 203 or equivalent. *First semester. One or two credits.* Fee $5 per credit.

207. 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 203. 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. *First semester. One or two credits.* Fee to be arranged in accordance with the work undertaken.

220. Welding and Heat Treating. Shop practice in oxy-acetylene and electric arc welding, stress relieving, annealing, and heat treating.
First semester. One credit. Fee $7.50.

226. Engineering Materials and Processes Laboratory. Treatment of materials and processes used in industry and studied through use of demonstrations, motion pictures, slides, and field trips to nearby industries.
Second semester. One credit. Fee $5.

Metallurgy

Professors W. S. Palmer (Chairman of Department), Smyth; Mr. Hammond.

204. 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 102 and 242 and Physics 151 or 203. *Second semester. Two credits.* Smyth.

206. Engineering Materials and Processes. For electrical and mechanical students. Lectures and recitations on the properties, manufacture, shaping and heat treatment of metals, alloys, and other materials.
Prerequisite: Chemistry 101 and Physics 203. *Second semester. Two credits.* Smyth.

341. 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: Geology 212, Chemistry 232. *First semester. Lectures, one hour; laboratory, three periods. Four credits.* Fee $15. Smith and Hammond. 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.

356. 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 204. *Second semester. Lecture, one hour; laboratory, two periods. Three credits.* Fee $2.50. Palmer.

358. 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 204. *First semester. Two credits.* Smyth.

366. ORE DRESSING. Lectures and recitations in ore dressing. Laws of crushing, sizing, and concentration of ores, including flotation.

Prerequisite: Metallurgy 204, Geology 212 and 214. Course to be taken only with Metallurgy 368. *Second semester. Lectures, two hours. Two credits.* Palmer.

368. ORE DRESSING LABORATORY. A laboratory course to be taken only with Metallurgy 366. This course covers general practice in the use of the various machines used in ore dressing.

Prerequisite: Chemistry 232, Metallurgy 341. *Second semester. Laboratory, two periods. Two credits.* Fee $5. Smyth and Hammond.

461. 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: Geology 211 and Metallurgy 204 and 341. *First semester. Three credits.* Palmer.

462. 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: Metallurgy 461 and 471. *Second semester. One credit.* Palmer.

471. 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.

Prerequisites: Metallurgy 341 and 366; Chemistry 232. *First semester. Lectures, two hours; laboratory, one period. Three credits.* Fee $5. Palmer and Hammond.

472. ELECTROMETALLURGY. Lectures and recitations on electric smelting and the electrolytic processes involved in the metallurgy of the common and precious metals.

Prerequisite: Metallurgy 461 and 471. *Second semester. Two credits.* Palmer.

476. 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.* Palmer or Smyth.

479,480,481. PROJECT. Two laboratory periods weekly devoted to individual problems in metallurgy. Stress is placed upon amplifying the subject matter of previous metallurgy courses, and in the methods of searching for, summarizing, and presenting the data gathered and worked out.

Prerequisite: Metallurgy courses to the senior year and taken with Metallurgy 461 and 471. *Both semesters. Two credits.* Palmer. Fee to be arranged according to work undertaken, and only required with laboratory which uses apparatus, chemicals, etc. When projects involve laboratory work, students shall pay a charge to be based on the number of assays made or the type of work undertaken. The amount to be paid will be determined near the end of the project course and is to be paid as soon as the amount of the charge can be determined.

MILITARY SCIENCE AND TACTICS

Professors CATOR (PAS&T), PARKER (PMS&T) (Chairman of Department); Assistant Professors BRUCE, FICKEL, GRAY, MCELROY, SMEE; T/Sgt. CARRICK, M/Sgt. ELLIOTT, M/Sgt. FOSTER, M/Sgt. GARDNER, Sgt. GARNETT, M/Sgt. GRADY, M/Sgt. JOHNSON, M/Sgt. MENTZER, M/Sgt. SIDELL.

101-102. FIRST YEAR BASIC MILITARY. Two hours drill and two hours conference per week. Required of all first-year men not specifically exempted. This is a combined course for both Infantry and Air students.

Military 101 is not a prerequisite for Military 102. Military 101, *first semester. One Credit.* Military 102, *second semester. One credit.* Deposit to insure texts and equipment, $5; to insure military uniforms, $15.

Army Courses

201-202. SECOND YEAR BASIC INFANTRY. Two hours drill and two hours conference per week.

Military 201 is not a prerequisite for Military 202. Military 201, *first semester. One credit.* Military 202, *second semester. One credit.* Deposit to insure texts and equipment, $5; to insure military uniforms, $15.

301-302. FIRST YEAR ADVANCED INFANTRY. Five hours conference per week. These are the first two numbers of an elective group consisting of 301, 302, 303, 401 and 402, which must be taken in that order. Each application for enrollment in this group must be approved by the PMS&T, subject to the limitation of annual quotas fixed by the Department of the Army. Initial enrollments at midyear are not accepted.

Prerequisites: Military 101, 102, 201 and 202, or their equivalent. Military 301, *first semester. Three credits.* Military 302, *second semester. Three credits.*

303. INFANTRY CAMP. All who take advanced Infantry training are required to attend a six-week summer camp immediately following 302. The place and date of attendance will be announced at a later date.

Prerequisites: Military 301-302.

401-402. SECOND YEAR ADVANCED INFANTRY. Two hours drill and three hours conference per week.

Prerequisites: Military 301, 302, 303. Military 401, *first semester. Three credits.* Military 402, *second semester. Three credits.*

Air Force

211-212. SECOND YEAR BASIC AIRCRAFT MAINTENANCE ENGINEERING. Two hours drill and two hours conference per week.

Military 211 is not a prerequisite for Military 212. Military 211, *first semester. One credit.* Military 212, *second semester. One credit.* Deposit to insure texts and equipment, $5; to insure military uniforms, $15.

215-216. SECOND YEAR BASIC AIR FORCE GENERAL ADMINISTRATION. Two hours drill and two hours conference per week.

Military 215 is not a prerequisite for Military 216. Military 215, *first semester. One credit.* Military 216, *second semester. One credit.* Deposit to insure texts and equipment, $5; to insure military uniforms, $15.

311-312. FIRST YEAR ADVANCED AIRCRAFT MAINTENANCE ENGINEERING. Five hours conference per week. These are the first two numbers of an elective group consisting of 311, 312, 313, 411 and 412, which must be taken in that order. Each applicant for enrollment in this group must be approved by the PAS&T, sub-

ject to limitation of annual quotas fixed by the Department of the Air Force.

Prerequisites: Military 101, 102, 211 and 212 or their equivalent. Initial enrollments at midyear are not accepted. Military 311, *first semester. Three credits.* Military 312, *second semester. Three credits.*

313. AIRCRAFT MAINTENANCE ENGINEERING CAMP. All who take advanced Aircraft Maintenance Engineering training are required to attend a six-week summer camp immediately following Military 312. The place, date of reporting, and duration of this camp will be announced at a later date.

Prerequisites: Military 311, 312.

314. AIR FORCE GENERAL ADMINISTRATION CAMP. All who take advanced Air Force General Administration training are required to attend a six-week summer camp immediately following Military 316. The place, date of reporting and duration of this camp will be announced at a later date.

Prerequisites: Military 315, 316.

315-316. FIRST YEAR ADVANCED AIR FORCE GENERAL ADMINISTRATION. Five hours conference per week. These are the first two numbers of an elective group consisting of 315, 316, 314, 415, and 416, which must be taken in that order. Each applicant for enrollment in this group must be approved by the PAS&T, subject to limitation of annual quotas fixed by the Department of the Air Force.

Prerequisites: Military 101, 102, 215, 216 or their equivalent. Initial enrollments at midyear are not accepted. Military 315, *first semester. Three credits.* Military 316, *second semester. Three credits.*

411-412. SECOND YEAR ADVANCED AIRCRAFT MAINTENANCE ENGINEERING. Two hours drill and three hours conference per week.

Prerequisites: Military 311, 312, 313. Military 411, *first semester. Three credits.* Military 412, *second semester. Three credits.*

415-416. SECOND YEAR ADVANCED AIR FORCE GENERAL ADMINISTRATION. Two hours drill and three hours conference per week.

Prerequisites: Military 315, 316, 314. Military 415, *first semester. Three credits.* Military 416, *second semester. Three credits.*

MILITARY BAND. The University Band functions as an ROTC Band by participating in ceremonies and other formations as needed. A student enrolled in Military 101, 102, 201, 202, 211, 212, 215, or 216 may substitute band training for the two weekly drill periods for either one of the two years basic training provided prior approval is obtained from the department chairman. Band training is not acceptable as a substitute for any part of the work in advanced military courses.

MINERALOGY
(See Geology)

MINING

Professors CARPENTER (Chairman of Department), SMYTH; Mr. COUCH.

A. PRACTICAL MINING. Practical work in mining, metallurgy or geology 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.

101. INTRODUCTORY MINING. Lectures describing the various fields of employment in the mineral industries and the corresponding preparatory college courses, along with orientation advice on student procedure to gain the greatest benefit from his college work and college life.

Freshman year. First semester. One credit. Carpenter.

351. EXCAVATION. Lectures and problems 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 203 and 204; Chemistry 101, 102, and 242. *Junior year. First semester. Three credits.* Smyth.

352. MINE PLANT. Lectures and problems 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 203 and 204; Mathematics 341. *Junior year. Second semester. Three credits.* Carpenter.

461. MINING METHODS. Lectures and problems on the prospecting, development, and exploitation of mineral deposits, including underground metal mining methods in detail.

Prerequisite: Mining 351 and 352. *Senior year. First semester. Three credits.* Carpenter.

472. MINE ADMINISTRATION. Lectures and problems 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.

Prerequisite: Mining 461. *Senior year. Second semester. Three credits.* Smyth.

474. MINERAL INDUSTRY ECONOMICS. Lectures and problems

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 cost of mining, milling, and marketing, and cost accounting methods.

Prerequisite: Mining 461. *Senior year. Second semester. Three credits.* Carpenter and Couch.

479,480,481. MINING PROJECT. Two laboratory periods weekly devoted to individual problems in mining with stress 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 351 and 352. *Both semesters. Two credits each semester.* A charge based on equipment and material used. Carpenter.

MUSIC

Professor POST (Chairman of Department); Assistant Professor TATE.

101-102. MUSIC FUNDAMENTALS AND EAR TRAINING. Notation, terminology, intervals, major and minor scales. Learning to read music in unison and in four-part arrangements. The course is designed to furnish a foundation for musicianship and is recommended for all music students and teachers in the public schools.

One credit each semester. Tate.

103-104. ELEMENTARY INSTRUMENTS. This course is set up primarily for students in education or music. Students will become acquainted with the fundamental techniques in teaching various instruments such as clarinet, cornet, trombone, percussion, and string instruments. This course will be helpful to students preparing to teach. Class instruction.

One credit each semester. Tate.

105-106. UNIVERSITY CHAMBER MUSIC ENSEMBLE. The work of this course will include music written for chamber ensemble as well as material arranged especially for the needs of the group. Students will prepare for at least one concert and assist in the presentation of larger works such as Handel's "Messiah," or Reno Civic Orchestra concerts. Open to students who are able to play string or wood-wind instruments.

One credit each semester. Tate.

107-108. ELEMENTARY PIANO. Fundamentals of keyboard technique and experience in playing simple accompaniments and materials for classroom use. Restricted to approved education and music students. Class instruction.

One credit each semester. Post.

111-112. UNIVERSITY SINGERS CLUB. Literature selected from

the best choral works. The group will take part in the annual community presentation of the oratorio, "The Messiah," by Handel, accompanied by the orchestra. In addition, there will be one or more public concerts by the group, including an opera or operetta in concert form.

Open to all men and women students who pass the entrance tests. *One credit each semester.* Post.

113-114. ELEMENTARY VOICE. Fundamentals of good tone production, practical technique in reading parts and the interpretation of songs. Restricted to approved education and music students.

One credit each semester. Post.

115-116. RENO CIVIC ORCHESTRA. The orchestra assists in the performance of Handel's "Messiah" and other works for chorus and orchestra. In addition, one or more public concerts are given each year. Open to all men and women students who play orchestral instruments, subject to approval of the director.

One credit each semester. Tate.

117-118. UNIVERSITY BAND. Band appearances include athletic events, rallies, civic and university parades, out-of-town trips with the football team, and one or more band concerts. Open to men and women students, subject to approval of the director. See *Military Department* for description of requirements and credits for men assigned to band as a substitute for military.

One credit each semester. Tate.

149. TEACHING OF MUSIC. Principles of music teaching in the kindergarten, elementary, and upper grades. Group technique, song leading, interpretation, rhythmic activities. Care of the voice through various periods of development. Music materials, rote songs, records, radio, and methods of approach for the listening period. Same as Education 149.

First semester. Two credits. Tate.

203. EIGHTEENTH CENTURY MUSIC. Music as found in the pre-Bach and eighteenth century classic period. Recordings of Gregorian chant, minstrelsy, folk-songs, the Netherland School and Palestrina. Bach, Handel, Gluck, Hayden, Mozart, and Beethoven. Historical and biographical background. Illustrations from the Carnegie University Library of records and scores.

Open to all students and visitors. No previous experience necessary. *First semester. Two credits.* Tate.

204. NINETEENTH CENTURY MUSIC. The music of the Romantic period. Schubert, Weber, Schumann, Mendelssohn, Berlioz, Liszt, Wagner, Brahms, Chopin, Grieg, Dvorak, Saint-Saens, and

Franck. Period background, records, scores, lectures, and recitals provide material for observation and study.

Open to all students and visitors. No previous experience necessary. *Second semester. Two credits.* Tate.

301-302. HARMONY. Fundamental triads, the Dominant seventh chord and inversions in both the major and minor modes. Ear training, keyboard drill, simple analysis, harmonization of melodies and modulation. Figured bass.

Prerequisite: Music 101-102. *Three credits each semester.* Post.

303. RUSSIAN MUSIC. A survey of the music of Glinka, Rimsky-Korsakoff and the Russian "Five," Tschaikowsky, Scriabin, Rachmaninoff, Stravinsky, Prokofieff, Shostakovich, Khachaturian, and others, with illustrations from the recordings. Some historical and biographical background.

Open to all students and visitors. No previous experience necessary. *First semester. Two credits.* Post.

304. MUSIC OF TODAY. Contemporary composers of all nations with special emphasis upon American music. Consideration of modern trends in both classical and popular fields. Music of Richard Strauss, Sibelius, Hindemith, Milhaud, Khachaturian, Williams, Holst, Schonberg, Chadwick, MacDowell, Carpenter, Copland, Harris, Gershwin and others, with illustrations from the recordings. Some historical and biographical background.

Open to all students and visitors. No previous experience necessary. *Second semester. Two credits.* Post.

305-306. UNIVERSITY CHAMBER MUSIC ENSEMBLE. For description see Music 105-106.

One credit each semester. Tate.

311-312. UNIVERSITY SINGERS CLUB. For description see Music 111-112.

One credit each semester. Post.

315-316. RENO CIVIC ORCHESTRA. For description see Music 115-116.

One credit each semester. Tate.

317-318. UNIVERSITY BAND. For description see Music 117-118.

One credit each semester. Tate.

349. HIGH SCHOOL MUSIC. Practical consideration of problems involved in various phases of high school music. Assembly singing, conducting, choral groups, instrumental groups, etc. Applicant must be a junior or senior taking courses in music. Active participation in band, orchestra, or chorus required. Same as Education 349.

Second semester. Two credits. Tate.

401-402. ADVANCED HARMONY. Study of secondary sevenths,

irregular resolutions of the seventh, ninth, eleventh, and thirteenth chords, mixed and altered chords, suspensions and other embellishments and modulation. Some original work. Continued ear training.

Prerequisite: Music 301-302. *Three credits each semester.* Post.

PHILOSOPHY

Mr. ERICKSEN (Chairman of Department), Mr. HINMAN.

REQUIREMENTS FOR A FIELD OF CONCENTRATION IN PHILOSOPHY

Major-interest subject (30 credits)—Philosophy 101 or 102 (3 credits), Philosophy 107 or 108 (3 credits), Philosophy 351 and 352 (6 credits), and 18 additional credits in the department approved by the chairman of the department. *Related subjects* (20 credits)—To be selected in consultation with the chairman of the department. Especially recommended are: Psychology 201, 361; Political Science 101, 102, 369; Economics 201, 202; Sociology 201, 371; History 303, 305, 306; Art 115, 261, 362; English 131, 132.

101. 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.

Open to freshmen. Either semester. Three credits. Hinman.

102. SOCIAL ETHICS. An introduction to the fundamental principles of social ethics, followed by a critical study of the moral standards of America's primary social institutions.

Three credits. Ericksen.

107. DEDUCTIVE LOGIC. Terms, definition, division, syllogism and fallacies. Text, lecture and exercises.

Open to freshmen. First semester. Three credits. Hinman.

108. INDUCTIVE LOGIC. The assumptions of induction methods of scientific investigation, fallacies, the tests of truth. Text, lectures and exercises.

Open to freshmen. Second semester. Three credits. Hinman.

221. 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 and second semesters. Two credits.

351. 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. Three credits.* Ericksen.

352. 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. Three credits.* Graduate credit given with consent of the instructor. Ericksen.

353. Philosophical Tendencies of the Present. A review and criticism of the main tendencies of philosophical thought with reference to present social problems.

Prerequisite: One course in philosophy. *First semester. Two credits.* Graduate credit given with consent of instructor. (Not offered in 1949–1950.)

354. Philosophical Tendencies of the Present. Special attention is given to absolutism, pluralism, pragmatism, and the philosophy of James.

Prerequisite: One course in philosophy. *First semester. Two credits.* Graduate credit given with consent of instructor. Ericksen.

455. Aesthetics. A philosophic analysis and appraisal of the aesthetic experience to determine the meaning of beauty and of ugliness. Special consideration will be given to the origin and nature of art; its significance for religion, morality, and social life. Contemporary theories of aesthetics will be analyzed and their standards of criticism evaluated.

Prerequisite: Junior standing. *First semester. Two credits.* Graduate credit given with consent of the instructor. Hinman.

462. Philosophy of Religion. The meaning of 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 201. *Second semester. Two or three credits according to the work done.* Graduate credit given with the consent of the instructor. Ericksen.

482. Philosophy of Political Problems. The metaphysical basis of the State, the State and its citizens, the State and other States, sovereignty, freedom, democracy, fascism and communism, are among the problems discussed.

Prerequisite: Junior standing and one course in philosophy. *Second semester. Two credits.* Graduate credit given with the consent of the instructor. Hinman.

483. Economic Justice in American Democracy. A study of economic justice as it has developed through the cultural patterns of American democracy. Special attention will be given to the conflicts of economic and professional groups as factors in the formulation of the moral judgment.

Two credits. Ericksen.

484. 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 201. *Second semester. Two credits.* Graduate credit given with consent of the instructor. Hinman.

499. RESEARCH COURSE. The thesis may be selected in any field of philosophy. For seniors only.

Prerequisite: Fifteen credits in philosophy. *Either semester. Two credits.* Graduate credit given with consent of the instructor. Ericksen.

PHYSICAL EDUCATION

Professor MARTIE (Chairman of Department); Associate Professor SCRANTON; Assistant Professor RUSSELL; Mr. BROTEN, Miss BRIGGS, Miss PRICE.

REQUIREMENTS FOR A FIELD OF CONCENTRATION IN PHYSICAL EDUCATION

1. MEN'S DIVISION. *Major-interest subject* (27 credits)—Physical Education 101, 102, 201, 202 (2 credits), 110, (1 credit), 210 (3 credits), 301 (1 credit), 310 (2 credits), 340 (2 credits), 390 (3 credits), 410 (2 credits), 441 (2 credits), 452 (3 credits), and 6 additional credits in courses numbered above 300. *Related subjects* (23 credits)—Physics 101-102 (4 credits), Zoology 101, 211, 346 (12 credits), Psychology 201 (3 credits), English 111, 112 (4 credits).

2. WOMEN'S DIVISION. *Major-interest subject* (31 credits)—Physical Education 161, 162, 261, 262 (3 credits), 163-164 (2 credits), 170 or 270 (1 credit), 361-362 (1 credit), 263 or 264 (1 credit), 111 (1 credit), 180 (2 credits), 281 or 440 (3 credits), 290 (2 credits), 372 (3 credits), 390 (3 credits), 452 (3 credits), and 6 additional credits in courses numbered above 300. *Related subjects* (19 credits)—Zoology 101, 211, 346 (12 credits), Psychology 201 (3 credits), English 111-112 (4 credits).

Students selecting a field of concentration in physical education who wish to qualify for a secondary teacher's certificate should consult the School of Education (see pp. 157–162) concerning requirements.

Men

101. DEVELOPMENTAL EXERCISES. Physical examinations are required at the beginning of the semester. Practical work consists in mass athletics; games selected with a view of developing alertness, coordination, muscular control, vigor and rhythm.

Freshman year (required). *First semester. Two periods per week. One-half credit.* Scranton.

102. DEVELOPMENTAL EXERCISES. Continuation of course 101 with addition of calisthenics and light apparatus.

Second semester. One-half credit. Scranton.

201. ADVANCED EXERCISES. Practical work consists in mat work, tumbling, heavy apparatus using long and short horse and buck.

Sophomore year (required). *First semester. Two periods per week. One-half credit.* Broten.

202. ADVANCED EXERCISES. Continuation of course 201. Heavy

apparatus consisting of work with parallel bar, low and high bar, ladder and stall bars.

Second semester. One-half credit. Broten.

NOTE: By consent of the department chairman, a student may elect any of the following sports as a substitute for the practical work in courses 101, 102, 201, 202: Football, basketball, track, tennis, cross-country, boxing, wrestling, tumbling.

103-104, 203-204. SPECIAL CORRECTIVE EXERCISES. Corrective work for all whose physical examination shows they are unfitted to take the required physical education.

One-half credit each semester up to and including four semesters. Martie.

110. GENERAL HYGIENE. Principles of health promotion, individual hygiene, disease prevention and control.

Either semester. One credit.

210. FIRST AID AND TREATMENT OF ATHLETIC INJURIES. The first six weeks will be devoted to the Red Cross First Aid Course, successful completion of which will entitle the student to a Red Cross Certificate. The remainder of the course will deal with prevention and treatment of common athletic injuries.

First semester. Three credits. Martie.

301. APPARATUS AND TUMBLING. Advanced exercises for increasing skills on the mats, bars, horse, and springboard.

First semester. One credit. Broten.

310. INTRODUCTION TO PHYSICAL EDUCATION AND HEALTH. Consideration of aims and objectives of physical education and health; the principles underlying the curriculum, standards for selection of activities and criteria for judging the work.

Second semester. Two credits. Broten.

320. FOOTBALL IN THEORY AND PRACTICE. A course of lectures and practical demonstrations for those who may wish to coach, or for those who are interested in and wish a more intimate knowledge of the game.

First semester. One lecture and one laboratory per week. Two credits. Scranton.

321. BASKETBALL IN THEORY AND PRACTICE. A course of lectures and practical demonstrations.

Second semester. One lecture and one laboratory per week. Two credits. Martie.

322. TRACK AND FIELD ATHLETICS. Lectures and demonstrations of each track and field event.

Second semester. One lecture and one laboratory per week. Two credits. Scranton.

325. OFFICIATING MAJOR SPORTS. A careful study of the rules

of football, basketball, and track with interpretations, methods of officiating, and characteristics of officials.
First semester. Two credits. Scranton.

340. PHYSICAL EDUCATION METHODS. A teachers' course in physical education. To develop squad leaders and to assist men to qualify for a State Certificate to teach physical education.
Second semester. One lecture and two laboratory periods per week. Two credits. Scranton.

410. SCHOOL AND COMMUNITY HEALTH. A study of school sanitation, health of the school child, community hygiene, and public health. Physical education and its relation to health.
First semester. Two credits. Broten.

430. PSYCHOLOGY OF COACHING. Emphasizes the application of practical psychology in all forms of athletic activities. Illustrations of applied psychology are collected and analyzed as to values in the relations to specific forms of athletics.
Second semester. Two credits. Martie.

431. CHARACTER EDUCATION THROUGH PHYSICAL EDUCATION. An application of the principles of leadership to the particular problems in the program of character education in general, but with special reference to the character training situations that arise in the physical education field.
Second semester. Two credits. Martie.

440. RECREATION LEADERSHIP AND PLAYGROUND ADMINISTRATION. A comprehensive study of recreation leadership and playground administration with special emphasis given to group games, and the organization of programs for all ages in the community center building and the playground. An analysis of municipal recreation needs.
Second semester. Three credits. Broten.

441. See Education 341.

450. PHYSICAL EDUCATION MEASUREMENTS. A survey of the field of physical measurements. Methods of measuring improvement in coordination, skills and strengths.
Second semester. Two credits. Martie.

451. PHYSICAL DIAGNOSIS AND CORRECTIVE GYMNASTICS. Methods of detecting defects in structural and organic development and function. Exercises for correction of these defects.
First semester. Three credits. Martie.

452. PHYSIOLOGY OF EXERCISE. This course acquaints students with physiological changes in human organisms due to physical exercise. It furnishes a physiological basis for planning a program of physical education for schools. Laboratory experiments deal with simple observations of respiration, circulatory, nervous and metabolic adjustments to physical exercise.
First semester. Three credits. Martie.

Women

111. GENERAL HYGIENE. Principles of health promotion, individual hygiene, disease prevention and control.
One period. Either semester. One credit.

161. FRESHMAN ACTIVITIES (required). Choice of two activities offered. During the freshman year each woman is required to take one team sport (basketball, volleyball, soccer, hockey, or softball), one individual or dual activity (archery, tennis, golf, bowling, swimming, badminton, or tumbling), and one rhythmic activity (modern, folk, or social dancing, gymnastics).
Three periods. First semester. One credit.

162. FRESHMAN ACTIVITIES (required). Continuation of 161.
Three periods. Second semester. One credit.

163. PHYSICAL EDUCATION TECHNIQUES. Techniques of activities.
Three periods. First semester. One credit.

164. PHYSICAL EDUCATION TECHNIQUES. Continuation of 163.
Three periods. Second semester. One credit.

170. ACTIVITIES FOR PRIMARY GRADES. Rhythms, stunts, and games suitable for Kindergarten and first and second grades. May be substituted by special students for freshman requirement.
Two periods. First semester. One credit.

171. ACTIVITIES FOR INTERMEDIATE GRADES. Rhythmic activities and games of low organization for grades 3–8.
Two periods. Second semester. One credit.

180. INTRODUCTION TO PHYSICAL EDUCATION FOR WOMEN. An orientation and guidance course including a brief history with emphasis on current trends in physical education.
Two lectures. Second semester. Two credits.

261. SOPHOMORE ACTIVITIES (required). A choice of an individual, team, or rhythmic activity as offered.
Two periods. First semester. One-half credit.

262. SOPHOMORE ACTIVITIES (required). Continuation of 261.
Two periods. Second semester. One-half credit.

263. TECHNIQUES. Gymnastics, tumbling, and field and track.
Three periods. First semester. One credit.

264. TECHNIQUES OF MODERN DANCE. Intermediate modern dance techniques with emphasis on composition and production.
Prerequisite: Beginning dance or consent of instructor. *Three periods. Second semester. One credit.*

281. RECREATIONAL CRAFTS FOR HOME, SCHOOL, AND CAMP. Includes practical work in arts and crafts, party planning, story telling, dramatics, and camp craft.
Two laboratories, one lecture. Three credits.

290. HEALTH AND FIRST AID. A standard first-aid course (Red Cross) with additional study of health problems met in a women's physical education program.
Prerequisite: Physical Education 111. *Two credits.*

361. JUNIOR ACTIVITIES. Advanced work in individual and team sports for students who have completed their required physical education.
Two periods. First semester. One-half credit.

362. JUNIOR ACTIVITIES. Continuation of 361.
Two periods. Second semester. One-half credit.

371. TEACHING OF DANCE. Methods of teaching folk, modern, and social dance. Practical experience in teaching beginners in dance.
Prerequisite: Physical Education 264. *Two laboratories, one lecture. Two credits.*

372. COACHING AND OFFICIATING TEAM SPORTS. Rules, strategy, and techniques of basketball, softball, soccer, and volleyball.
Prerequisite: Practical experience in the above sports. *Two laboratories, two lectures. Three credits.*

380. ORGANIZATION AND ADMINISTRATION OF PHYSICAL EDUCATION. Methods of organizing and conducting a physical education program for high school or college women. (This course and Education 347 are the same.)
Prerequisite: Physical Education 180. *Two credits.*

390. KINESIOLOGY. The mechanical and anatomical analysis of motion as a basis for the teaching and adaptation of physical education activities.
Prerequisite: Zoology 101 and 211. *Three credits.*

391. CORRECTIVES AND ORTHOPEDIC EXAMINATION. Methods of giving a physical examination. The study of the causes of faulty posture and the detection and correction of these faults. Adaptation of activities for the handicapped.
One lecture, one laboratory. Two credits.

*461. SENIOR ACTIVITIES. Advanced work in activities offered for those who have completed required work in physical education.
Two periods. First semester. One-half credit.

*462. SENIOR LIFE SAVING. A standard Red Cross course.
Prerequisite: Consent of instructor. *Two periods. Second semester. One-half credit.*

*471. THEORY AND PRACTICE OF DIRECTING INDIVIDUAL AND

*Open to men.

DUAL ACTIVITIES. A study of the rules, techniques, and coaching methods of tennis, archery, badminton, golf, and bowling.

Prerequisite: Skill in a minimum of four of the above sports. *Two laboratories, two lectures. Three credits.*

480. HISTORY AND DEVELOPMENT OF THE DANCE. A study of dance forms of the past and present and their relationship to the other arts.

Prerequisite: Physical Education 264. *Two lectures. Two credits.*

490. TESTS AND MEASUREMENTS. A survey of tests used in physical education for women; methods of administering the testing program and of using the data collected.

One laboratory, one lecture. Two credits.

PHYSICS

Professor LEIFSON (Chairman of Department); Associate Professor BLAIR; Assistant Professors HANSEN, WORLEY; Mr. INMAN.

REQUIREMENTS FOR FIELDS OF CONCENTRATION IN PHYSICS

A student who is looking forward to a scientific career including research and university teaching should choose option 1. Option 2 provides good preparation for secondary school teaching and certain Civil Service positions.

1. *Major-interest subject* (27 credits)—Physics 203-204, 205-206 (12 credits), 471-472 (4 credits); and 11 additional credits in physics courses numbered above 300. *Related subjects* (32 credits)—Chemistry 101, 102, 122 (9 credits), Mathematics 151-152 (10 credits), 251-252 (8 credits), 341, 351 (5 credits). It is also recommended that German be used to fulfill the requirement in foreign languages.

2. *Major-interest* (27 credits)—Physics 151-152, 153-154 (8 credits), 357 (2 credits), 471-472 (4 credits), and 13 additional credits in physics, of which 9 must be courses numbered above 300. *Related subjects* (23 credits)—Chemistry 101, 102, 122 (9 credits); Mathematics 102, 110, 140 (8 credits), 231-232 (6 credits).

Students selecting a field of concentration in physics who wish to qualify for a secondary teacher's certificate should consult the School of Education (see pp. 157–162) concerning requirements.

Suggestion outline of courses for the first year:

Option 1

	1st Sem.	*2d Sem.*
Military 101-102	1	1
Physical Educ. 101-102	½	½
English 101-102	3	3
Mathematics 151-152	5	5
Chemistry 101-102	4	2
Social Science	2	4
	15½	15½

Option 2

	1st Sem.	*2d Sem.*
Military 101-102	1	1
Physical Educ. 101-102	½	½
English 101-102	3	3
Mathematics 102	2	..
Mathematics 110	3	..
Mathematics 140	..	3
Chemistry 101-102	4	2
Social Science	2	6
	15½	15½

101-102. INTRODUCTORY PHYSICS. A nonmathematical course designed to give the student an understanding of some of the basic principles of physics.

Two credits each semester.

103-104. INTRODUCTORY PHYSICS LABORATORY. Elementary laboratory exercises in mechanics, heat, sound, light, electricity and magnetism, designed to illustrate and supplement lectures in Physics 101-102.

One credit each semester. Fee $2.50.

107. DESCRIPTIVE ASTRONOMY. A brief course in astronomy designed to acquaint the student with the more important facts relating to the heavenly bodies. Descriptive rather than mathematical in character. By special arrangement, interested members of the class may become familiar with the use of the sextant and with the underlying principles involved in the determination of the location of the observer upon the surface of the earth.

Three credits. Two scheduled periods and one evening hour to be arranged. Either semester. Blair.

115-116. ELEMENTARY RADIO. The characteristics of electron tubes and their applications. The principles underlying radio receivers and transmitters. Liberally illustrated by laboratory demonstrations.

Prerequisite: Two years of high school mathematics. *Three credits each semester.*

117-118. METEOROLOGY. A brief presentation of the fundamental principles of weather observation, mapping, and forecasting. This course will be found most helpful to men planning to enter any branch of aviation. Not only will the student be able to use more intelligently the information supplied to him by the meteorologist but to a considerable extent he will become his own forecaster, utilizing his knowledge of the probable consequences of local weather phenomena. This is especially important under war conditions when the flier is often unable to obtain weather reports by radio. The content of the course also affords a solid foundation for more advanced work in meteorology. The complex mathematical theory underlying modern meteorology is left for later consideration.

Three credits each semester.

119. HOUSEHOLD PHYSICS. A course in general physics for students in home economics, with special emphasis on practical applications in the home.

Two lectures and two laboratory periods per week. Four credits. Fee $5.

151-152. 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.

Prerequisite: Plane geometry. A knowledge of trigonometry is desirable. *Three credits each semester.*

153-154. General Physics Laboratory. A laboratory course to make the student an intelligent observer of natural phenomena. To accompany Physics 151-152. 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.

Prerequisites: Plane geometry. A knowledge of trigonometry is desirable. *One credit each semester.* Fee $3.

203-204. 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.

Prerequisites: Plane, solid, and analytic geometry, and trigonometry. *Four credits each semester.*

205-206. 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.

Prerequisites: Plane, solid, and analytic geometry, and trigonometry. *One or two credits each semester.* Fee $2.50 per credit hour.

357-358. 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.

Prerequisites: General physics, differential and integral calculus. *Two credits each semester.* Fee $5.

359-360. Heat, Thermodynamics, and Kinetic Theory. Lectures and recitations. Many of the more difficult subjects merely touched upon in general physics will be fully treated.

Prerequisites: General physics, differential and integral calculus. *Two credits each semester.* Graduate credit given with the consent of the instructor.

361-362. 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, prisms, prism spectra, Doppler's principle and its applications, diffraction, interference, the theory of the grating, double refraction and polarization.

Prerequisites: General physics, differential and integral calculus. *Two credits each semester.* Graduate credit given with the consent of the instructor.

363. PHYSICAL OPTICS. Laboratory exercises in connection with course 361-362.

Two credits. Fee $5. Graduate credit given with the consent of the instructor.

365-366. HISTORY OF PHYSICS. Lectures and recitations. Preparation of reports and discussion of assigned topics by members of the class.

Prerequisites: General physics. *Two credits each semester.* Graduate credit given with the consent of the instruction.

368. SPECTROSCOPY. Theory and method of production, measurement, examination, and identification of spectra. Study and use of prism and grating spectrographs.

Prerequisites: General physics, general chemistry, and calculus. *One lecture and one laboratory period per week. Two credits.* Fee $5. Graduate credit given with the consent of the instructor.

375-376. GLASSBLOWING. A laboratory course of instruction in methods of making simple glass apparatus.

One credit. Fee $8.

377-378. 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.

Prerequisites: General physics, differential and integral calculus. *Two credits each semester.* Fee $5. Graduate credit given with consent of instructor.

401-402. 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. *One credit. One three-hour computing period per week.* Graduate credit given with the consent of the instructor.

471-472. INTRODUCTION TO MODERN PHYSICS. Lectures and experimental illustrations. Discussion of important topics in the fields of radiation and the structure of atoms and molecules. Introduction to quantum mechanics.

Prerequisites: General physics, and calculus. *Two credits each semester.* Graduate credit given with the consent of the instructor.

473-474. ELECTRICITY AND MAGNETISM. Introduction to the mathematical theory of electricity and magnetism. Solution of problems by exact reasoning from fundamental principles.

Prerequisites: General physics, differential and integral calculus.

Two credits each semester. Graduate credit given with the consent of the instruction.

493-494. THESIS WORK. And all special laboratory work not in the courses announced above.

Either semester. Credits to be arranged. Fee $2.50 per credit. Graduate credit given with the consent of the instructor.

501-502. THEORETICAL PHYSICS. An introduction to the more advanced mathematical analysis as applied to general physical problems.

Prerequisites: General physics, differential and integral calculus and differential equations. *Two credits each semester.* Undergraduates may be admitted with the consent of the instructor.

POLITICAL SCIENCE
(See History and Political Science)

POULTRY HUSBANDRY
(See Animal Husbandry)

PSYCHOLOGY

Professor IRWIN (Chairman of Department); Mr. BREWER, Mr. GRAFTON.

REQUIREMENTS FOR FIELDS OF CONCENTRATION IN PSYCHOLOGY

Students interested in psychology as a field of concentration may choose either of two plans. Plan 1 is for prospective professional psychologists and for those interested in a systematic and representative study of psychology as a science. Plan 2 is for those students who do not expect to become psychologists. It emphasizes fields of application. Plan 2 might be undertaken by either of two groups of students, (1) those interested in personal and cultural values in psychology, useful, for example, in homemaking and community living, and (2) those who would find practical uses for psychology in related occupations such as personnel management, business, teaching, law, counselling and guidance, social work, medicine, nursing, writing, journalism, public relations, government and politics, home economics, and any other field in which human behavior is of significance.

1. *Major-interest subject* (30 credits)—Psychology 201 (3 credits), 205 (2 credits), 301 (3 credits), 361 (3 credits), 408 or 415 (2 credits), 411 (3 credits), 441 (3 credits), and 11 credits in psychology to be chosen in consultation with the adviser. *Related subjects* (20 credits)—Mathematics 220 or Economics 361 (3 credits) and 17 credits to be selected in consultation with the adviser, 15 from one of the 3 departments of zoology, sociology, or philosophy, and 2 credits from a second of these departments.

2. *Major-interest subject* (30 credits)—Psychology 201 (3 credits), 205 (2 credits), 301 (3 credits), 361 (3 credits), 411 (3 credits), and 16 credits in psychology to be chosen in consultation with the adviser. *Related subjects* (20 credits)—To be selected in consultation with the adviser, 15 from one of the departments listed below and 5 from other departments listed. Mathematics 220 or Economics 361 (3 credits) is

especially recommended as part of the 5 hours. The related departments are home economics, sociology, philosophy, zoology, art, history and political science, English and speech, journalism, economics and business administration, mathematics, education, military, music, and physical education.

121. HUMAN NATURE. A freshman course in personal and social efficiency, emphasizing the most practical principles of elementary social psychology. Topics included are psychological factors in effective study, social and emotional adjustment, the measurement of personality traits and aptitudes, vocational choice and leadership.

Either semester. Two credits. Irwin, Brewer, Grafton.

201. GENERAL PSYCHOLOGY. An introductory course dealing with forms and laws of human behavior and consciousness. Open to any sophomore and to freshmen who rank in the upper one-fourth with their mental test scores.

Prerequisite to all other courses in the department except Psychology 121. *Either semester. Three credits.* Irwin, Grafton, Brewer.

205. 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 201. *Second semester. Two credits.* Irwin, Brewer.

221. EDUCATIONAL PSYCHOLOGY. A consideration of the applications of psychology to educational problems.

Prerequisite: Psychology 201. *Second semester. Three credits.* Irwin.

231. 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 201. *Second semester. Two credits.* Grafton.

233. CHILD PSYCHOLOGY. The development of behavior patterns in the normal child from birth to twelve years of age.

First semester. Two credits. Irwin, Grafton.

241. MENTAL HYGIENE. A consideration of the principles of psychology in their relationship to mental health and efficiency.

Prerequisite: Psychology 201. *Either semester. Three credits.* Grafton, Brewer.

301. EXPERIMENTAL PSYCHOLOGY. A laboratory course in the application of scientific methods to the study of mental processes. Lectures, assigned readings, and laboratory.

Prerequisite: Psychology 201. *Either semester. Three credits.* Brewer.

361. 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.

Prerequisite: Psychology 201. *First semester. Three credits.* Irwin.

362. PSYCHOLOGY OF PROPAGANDA AND PUBLIC OPINION. This is a socio-psychological study of (1) the psychological basis of public opinion, (2) the techniques of leadership, (3) the forces which mould public opinion, and (4) quantitative techniques in the measurement of attitudes and the effects of publicity campaigns.

Prerequisite: Psychology 201. *Second semester. Two credits.* Irwin.

371. 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 workers 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 201. *First semester. Two credits.* Irwin.

375. MARRIAGE, HOMEMAKING, AND DIVORCE. A presentation of the psychological principles involved in these three types of social adjustment.

Prerequisite: Psychology 201. *Either semester. Two credits.* Irwin.

381. PSYCHOLOGY OF ADVERTISING. An intensive study of the psychological principles basic to effective advertising. Emphasis will be placed on the techniques of experimental investigation useful to advertisers in solving problems on the job for which psychology does not provide ready-made answers.

Prerequisite: Psychology 201. *First semester. Two credits.* Grafton.

382. BUSINESS PSYCHOLOGY. Discussions, readings, and practical assignments on the mental laws basic to effective buying, selling, advertising, and management of men. Salesmanship will be emphasized.

Prerequisite: Psychology 201. *First semester. Two credits.* Irwin.

391. PSYCHOLOGY OF PERSONNEL. Applications of psychology to public and private personnel administration, including (1) selection, merit-rating and in-service training, (2) supervision, leadership, incentives and industrial conflict, (3) fatigue, accident prevention and conditions of work, and (4) the emotional and social adjustment of the employee.

Prerequisite: Psychology 201. *Second semester. Two credits.* Irwin.

405. PSYCHOLOGY OF PERSONALITY. A consideration of the nature, development and evaluation of personality.

Prerequisite: Psychology 201. *First semester. Two credits.* Brewer.

408. SYSTEMATIC PSYCHOLOGY. A study of the historical background of psychology and of the various schools of psychological thought.

Prerequisite: Psychology 201. *Second semester. Two credits.* Grafton.

411. MENTAL, PERSONALITY, AND VOCATIONAL APTITUDE TESTS.

Lectures, laboratory, practice and 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, and social service work.

Prerequisite: Psychology 201. *First semester. Three credits.* Irwin, Grafton.

412. INDIVIDUAL TESTING. A professional course in the administration of the Stanford-Binet and Wechsler Bellevue intelligence tests. Students will be required to administer, score, and interpret about 40 individual tests during the semester. The critical evaluation of test results will be stressed.

Prerequisites: Psychology 201, Psychology 411, and permission of the instructor. *Second semester. Three credits.* Brewer.

415. COMPARATIVE PSYCHOLOGY. The genetic history of consciousness and behavior patterns in animals, savages and civilized human beings.

Prerequisite: Psychology 201. *Second semester. Two credits.* Grafton.

441. ABNORMAL PSYCHOLOGY. A study of the abnormal mind, aetiology of mental disorders, neuroses and psychoses, with some attention to therapeutic procedures.

Prerequisite: Psychology 201. *First semester. Three credits.* Irwin, Brewer.

450. INTRODUCTION TO CLINICAL PSYCHOLOGY. A preprofessional course in the fundamental concepts of clinical testing, diagnosis, therapy, and research as performed by the psychologist either individually or as a member of the Psychiatric Team. For students in the fields of psychology, medicine, social work, nursing, and related fields.

Prerequisites: Psychology 201, a course in testing and/or permission of the instructor. A course in mental hygiene or abnormal psychology would be desirable. *Second semester. Three credits.* Brewer.

499. 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. The course may be repeated with research on a new problem.

For graduate students and seniors. *Either semester. Two credits.* Staff.

501. MASTER'S THESIS.

Either semester. Irwin.

SOCIOLOGY (See Economics, Business, and Sociology)

SPANISH (See Foreign Languages)

SPEECH (See English)

ZOOLOGY (See Biology)

SUMMER SESSIONS OF UNIVERSITY

FIRST TERM
June 11 through July 15, 1949

SECOND TERM
July 16 through August 19, 1949

OPPORTUNITY AND PURPOSE

The Summer Sessions are an integral part of the University of Nevada organization. The same high standards prevail as in the regular session; equivalent work carries equivalent credit and the same high quality of teaching personnel is maintained.

One of the primary purposes of the Summer Sessions is to meet the needs of teachers who wish to spend a part of the summer vacation in serious study or investigation. The Summer Sessions afford unusual opportunity to increase teaching skill, to improve teaching personality, to obtain help with individual classroom problems, to acquire new cultural and recreational interests, and to become better informed concerning current and social problems.

Of almost equal importance is the opportunity given by the Summer Sessions to students desiring to accelerate their programs. Moreover, some students find it advantageous to attend summer school to gain a desired classification or to study a particular subject not offered in the regular sessions.

Specific courses are designed for high school teachers, elementary teachers, and teachers of departmental work. Courses offered in either of the Summer Sessions may be applied for advancement toward a normal school diploma, a bachelor's or master's degree, and toward certification by the Nevada State Board of Education. A bulletin describing the faculty, the curriculum, and the facilities available during the summer may be obtained by addressing the Director of Summer Sessions.

ADMISSION AND CREDITS

Anyone with ability to do scholastic work on the University level may be admitted to the Summer Sessions. However, credit toward any University degree or diploma will be granted only after the student has met all requirements for admission to the University.

Usually the student may enroll for a maximum of six credit hours of work in either of the five-week sessions. The number of credits allowed for each course is determined on the basis that

fifteen University lecture periods of fifty minutes each, together with two hours of out-of-class preparation for each class, earn one hour of credit.

Out-of-State Teachers

Teachers from other States may fulfill requirements to validate certificates to teach in Nevada schools by attending either or both of the Summer Sessions. Out-of-State teachers are required to pass State examinations in, or to receive University credit for, School Law and Organization and the Constitutions of the United States and of Nevada. Teachers from other States must meet the requirement in Nevada Constitution should they already have credit in United States Constitution. All of these courses are offered in the Summer Sessions.

Teacher Placement

Teachers are eligible for teacher placement service after ten weeks of summer school attendance at the University of Nevada.

The policy of the appointment director has always been to consider the welfare of the children of the State paramount to the interests of prospective teachers. Consequently, recommendations for teaching positions are confined largely to those whose achievement, ability, and character are known. The appointment office will, however, be instrumental in bringing competent teachers and school officers into contact.

The fee for enrollment in the appointment service is $2.50. For this fee, five sets of credentials are prepared, to be sent to school authorities. If additional credentials are required, a fee of $1.50 will be charged for each set of five. No commission is charged on the appointee's salary.

Summer Session Fees

The fee for each of the five-week sessions is $20 for Nevada students, $35 for out-of-State students. In addition, the ordinary laboratory fee will be charged to those students enrolling for courses requiring laboratory classes. A deposit of $10 will be assessed each student. This deposit is refunded in full at the close of the session if no charge is made against it.

Public Services

The Nevada Agricultural Experiment Station

Staff

John O. Moseley, M.A., A.B., (Oxon.) A.M., (Oxon.) LL.D., President of the University.
Charles H. Gorman, Honorary M.S., LL.D., Vice President and Comptroller.
Charles E. Fleming, B.S.A., Director of Agricultural Experiment Station and Chief of Range Management.
Agnes L. Schmith, Administrative Secretary and Librarian.
Gloria Ghiglieri, Assistant Librarian.
Mark A. Shipley, B.S., Associate in Range Management.
Walter Neilson, Assistant in Range Management.
Chester A. Brennen, B.A., Economist in Range Management.
Grant H. Smith, Jr.,[1] B.S., Assistant Economist in Range Management.
Edward Records, V.M.D., In Charge of Veterinary Science.
Henry Johnson, Assistant in Range Management.
Lyman R. Vawter, D.V.M., M.S., Associate in Veterinary Science.
M. R. Miller, M.S., Chemist.
V. E. Spencer, M.S., Associate in Soils Research.
William A. Goodale, B.S., Assistant in Soils Research.
Howard Sommer, Assistant in Soils Research.
Lois Cazier, Clerk Technician in Soils Research.
George Hardman, M.S., Chief in Irrigation and Agronomy.
Howard G. Mason, B.S., Estimating and Planning.
F. B. Headley, Chief in Farm Development.
Mabel Connor Hartley, B.A., Associate in Farm Development.
Ray K. Petersen, Horticulturist.
J. E. Church, Ph.D., Chief in Meteorology.
Carl Elges, Jr.,[1] 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 1947–1948 it received $2,962.52 from the Federal Bankhead-Jones Fund. The total of these Federal appropriations for the current fiscal year will be $92,962.52. 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.

[1]Absent on leave.

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

VI. Production and marketing of tomato transplants.

VII. Soil fertility studies.

For 1948–1949 the active project list of the Station is as follows:

RANGE MANAGEMENT—

Project 22—Adams Fund. *Poisonous Range Plants—Halogeton glomeratus. A Desert Plant Poisonous to Sheep in Nevada.* 1916-continuous. Project Leader, C. E. Fleming assisted by M. R. Miller, Dr. L. R. Vawter and Walter Neilson. In cooperation with U. S. Grazing Service.

Project 24—Hatch Fund. *Methods of Producing More and Better Lambs in Nevada Range Flocks.* 1919-continuous. Project Leader, C. E. Fleming, assisted by Walter Neilson. In cooperation with Bureau of Animal Industry, U. S. D. A., and the U. S. Sheep Experiment Station and Western Sheep Breeding Laboratory, Dubois, Idaho.

Project 31—Purnell Fund. *Studies of the Economics of Cattle and Sheep Production Under Nevada Ranch and Range Conditions.* 1939-continuous. Project Leader, C. A. Brennen, assisted by C. E. Fleming and Grant H. Smith. In cooperation with Bureau of Agricultural Economics and other bureaus of U. S. D. A., and U. S. Grazing Service.

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. *Bronco grass.* 1936–continuous. Project Leader, C. E. Fleming, assisted by Departments of Veterinary Science, Chemistry, and Soils. In cooperation with U. S. Forest Service, and U. S. Grazing Service.

Project 67—Purnell Fund. *The Feeding Value of Meadow Hay for Wintering Beef Cattle as Influenced by the Variation in Nutritive Content When Harvested at Different Stages of Plant Maturity.* 1947-continuous. Project Leader, Mark A. Shipley, assisted by Henry Johnson and M. R. Miller.

Project 68—Purnell Fund. *Cost of Producing an Animal Unit Month of Forage from Range Seeding Operations as Evaluated by Density and Volume Estimates.* 1927-continuous. Project Leader, Mark A. Shipley, assisted by Henry Johnson and M. R. Miller.

Project 73—Purnell Fund. *Program for Control of Internal Parasites of Sheep in Station Farm Flock.* 1948-continuous. Project Leader, Dr. L. R. Vawter, assisted by C. E. Fleming and M. R. Miller.

Project 74—Purnell Fund. *Effects of Cultivation and Management Practices of Native Meadow Hay Lands on Yield and Feeding Value of Forage.* 1948-continuous. Project Leader, Mark A. Shipley, assisted by V. E. Spencer, and Soil Conservation Service.

METEOROLOGY—

Project 57—Purnell Fund. *Snow Surveying and Runoff Forecasting, Development and Application.* 1940-continuous. Project Leader, J. E. Church, assisted by Carl Elges. In cooperation with Soil Conservation Service, U. S. D. A.

CHEMISTRY—

Project 58—Purnell Fund. *Quality of Irrigation Waters of Nevada.* 1940-continuous. Project Leader, M. R. Miller. In cooperation with Bureau of Plant Industry, U. S. D. A., and Rubidoux Laboratory, Riverside, California.

Project 59—Purnell Fund. *Chemical Composition of Nevada Range Plants and Forage Crops.* 1940-continuous. Project Leader, M. R. Miller, Departments of Range Management, Farm Development, and Veterinary Science. In cooperation with the U. S. Grazing Service.

Project 75—Purnell Fund. *Productivity and Life of Alfalfa Stands as Related to Management.* 1948-continuous. Project Leader, Dr. Oliver F. Smith. In cooperation with Bureau of Plant Industry and Chemistry Department.

IRRIGATION—

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, assisted by H. G. Mason. In cooperation with Soil Conservation Service and Bureau of Agricultural Economics, U. S. D. A.

Project 72—Purnell Fund. *An Inventory of Lands Suitable for Irrigation by Pumping.* 1948-continuous. Project Leader, Howard Mason, assisted by George Hardman.

FARM DEVELOPMENT—

Project 32A—Purnell Fund. *Carrying Capacity of Pasture Grasses and Pasture Mixtures on the Newlands Field Station.* 1946-continuous. Project Leader, F. B. Headley, assisted by F. M. Willhite and M. R. Miller. In cooperation with Newlands Field Station, Fallon, Nevada.

Project 32B—Purnell Fund. *Comparison of the Biological Feeding Values of Alfalfa Hay and Concentrate Mixtures.* 1946-continuous. Project Leader, F. B. Headley, assisted by F. M. Willhite and M. R. Miller. In cooperation with Newlands Field Station, Fallon, Nevada.

Project 41—Hatch Fund. *Hog Feeding Experiments.* 1930-continuous. Project Leader, F. B. Headley. In cooperation with Bureau of Plant Industry, U. S. D. A., Newlands field Station, Fallon, Nevada.

Project 42—Purnell Fund. Experiments to *(1) Compare Large and Small Turkeys of the Same and Different Varieties with Respect to Rate and Economy of Gains and (2) to Determine Effect of Size and Conformation on Edible Meat.* 1933-continuous. Revised 1947. Project Leader, F. B. Headley. In cooperation with Bureau of Plant Industry, U. S. D. A., Newlands Field Station, Fallon, Nevada.

VETERINARY SCIENCE—

Project 63—Adams Fund. *Artificial Cultivation of Anaplasma Marginale.* 1944-continuous. Project Leader, Dr. Edward Records, assisted by Dr. L. R. Vawter.

Project 65—Adams Fund. *Accessory Food Substance Deficiencies.* 1946-continuous. Project Leader, Dr. Edward Records, assisted by Dr. L. R. Vawter and M. R. Miller.

SOIL FERTILITY—

Project 66—Purnell Fund. *Effect of Fertilizer Treatment on the Yield and Chemical Composition of Small Grains and Legumes Grown on the Light-Textured Soils of the Carson Valley.* 1946-continuous. Project Leader, V. E. Spencer.

ESTIMATING AND PLANNING—

Project 62—Purnell Fund. *Estimating and Planning of Agricultural Production in Nevada.* 1943-continuous. Project Leader, Howard G. Mason, assisted by F. M. Willhite, F. B. Headley, and in cooperation with U. S. Bureau of Agritural Economics and U. S. D. A.

RESEARCH AND MARKETING ACT—

Project 69—Research and Marketing Fund. *Possible Conservation of Range Forage as Based Upon Daily Weight Gains of Cattle on Summer Range.* 1947-continuous. Project Leader, Mark A. Shipley, assisted by Henry Johnson and M. R. Miller.

Project 70—Research and Marketing Fund. *Production and Marketing of Tomato Transplants in Southern Nevada.* 1947-continuous. Project Leader, M. R. Miller, assisted by V. E. Spencer.

Project 71—Research and Marketing Fund. *Adjustments in Marketing of Ranch and Range Cattle.* 1947-continuous. Project Leader, Howard G. Mason.

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.

Board of County Commissioners.

Staff

John O. Moseley, M.A., LL.D., President of the University.
Charles H. Gorman, Honorary M.S., LL.D., Vice President and Comptroller.
Cecil W. Creel, Agr.D., Director of Agricultural Extension, Dean of Agriculture.
Clarence E. Byrd, M.A., Administrative Assistant to the Dean of Agriculture.
Marie Grossholz, Chief Clerk.
A. L. Higginbotham, A.M., Extension Editor.
Thomas E. Buckman, M.S., Assistant Director for County Agent Work.
Margaret M. Griffin, B.S., Assistant Director for Home Demonstration Work.
Paul L. Maloney, B.S., Assistant Director for Junior Extension Work.
L. E. Cline, M.S., Extension Marketing Specialist.
William S. Hayes, B.S., Extension Director.
A. J. Reed, B.S., Extension Dairyman.
Otto R. Schulz, B.S., Extension Soil Conservationist.
Eldon E. Wittwer, Ph.D., Extension Agricultural Economist.
Leonard A. Anker, B.S., District Extension Agent, Douglas and Ormsby Counties.
William N. Helphenstine, B.S., District Extension Agent, White Pine and Eureka Counties.
J. Kirk Day, B.S., District Extension Agent, Humboldt and North Lander Counties.
District Extension Agent, Esmeralda and Nye Counties.
James G. Jensen, B.S., Assistant District Extension Agent, Churchill and Southern Lander Counties.
Archie R. Albright, B.S., County Extension Agent, Washoe County.
Edward C. Reed,[1] M.S., County Extension Agent, Washoe County.
Ferren Bunker, B.S., County Extension Agent, Lincoln County.
Fred Batchelder, B.S., County Extension Agent, Pershing County.
Louie A. Gardella, B.S., County Extension Agent, Lyon County.
Mark W. Menke, B.S., County Extension Agent, Elko County.
John H. Wittwer, County Extension Agent, Clark County.
Charles R. York, B.S., County Extension Agent, Churchill County.
Donald D. Drown, B.S., Assistant County Extension Agent, Elko County.
Warren Welsh, Assistant County Extension Agent, Lyon County.
Olive C. McCracken, B.S., District Extension Agent, Douglas, Ormsby, and Storey Counties.
J. Hazel Zimmerman, B.S., District Extension Agent, Clark and Lincoln Counties.
Madge Elder, B.S., County Extension Agent, Lyon County.
Lena Berry, B.S., County Extension Agent, Churchill County.
M. Gertrude Hayes, B.S., County Extension Agent, Washoe County.
Rose M. Spezia, B.S., County Extension Agent, Elko County.

[1]Absent on leave.

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 Bankhead-Flannagan Act, June 1945.

The Agricultural Extension Division as established under the Memorandum of Understanding with the United States Department of Agriculture dated September 8, 1914, is a "definite and distinct administrative division" of the University of Nevada, coordinate in rank and affiliation 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 through the County Community Centers, and Boys and Girls 4-H Clubs.

Besides the regular extension program outlined above, extension agents serve as executive secretaries of County Agricultural Conservation committees.

County Community Centers serve as a forum where farm men and farm women together find a solution for many of their problems by cooperating with Agricultural Extension Service.

Extension 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 twenty county and district agents. All seventeen Nevada counties have county extension work now extended to them. Fifteen counties have cooperative agreements between the Agricultural Extension Service and the respective Boards of County Commissioners pursuant to Nevada Statutes, Chapter 94, Sections 1–9, approved March 20, 1947.

The State Analytical Laboratory

STAFF

John O. Moseley, M.A., LL.D., President of the University.
Charles H. Gorman, Honorary M.S., LL.D., Vice President and Comptroller.
Walter S. Palmer, E.M., Director.
Vincent P. Gianella, Ph.D., Geologist.
Claude W. Hammond, B.S., Chemist.

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

John O. Moseley, M.A., LL.D., President of the University.
Charles H. Gorman, Honorary M.S., LL.D., Vice President and Comptroller.
Jay A. Carpenter, E.M., Director.
Fred L. Humphrey, Geologist.
Carl Stoddard, Mining Engineer.
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 Staff are part time only with temporary employment for others and with the State Analytical Laboratory Staff often rendering valuable aid. 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; and other various activities.

Departments of Food and Drugs, Weights and Measures, and Petroleum Products Inspection

(Sierra and Fifth Streets, Reno)

STAFF

John O. Moseley, M.A., LL.D., President of the University.
Charles H. Gorman, Honorary M.S., LL.D., Vice President and Comptroller.
Wayne B. Adams, B.S., Commissioner.
D. L. Randall, Chemist.
Victor Cokefair, Inspector.
Darrell Lemaire, Laboratory Assistant.
Lee Cobb, Inspector.
A. J. Rafael, Resident Inspector, Las Vegas.
Juanita L. Holmes, Clerk.

These three departments were created by separate specific Acts of the State Legislature. Since the enforcement of each of these laws has been delegated to the Commissioner of Food and Drugs, they have been consolidated under one department. The consolidation has proved to be of considerable benefit, because the laboratory control necessary in carrying out the provisions of these laws can be used to a great extent by the three departments, and because much of the work and many of the duties overlap.

An entirely new Food, Drugs and Cosmetic Law was enacted in 1939. As this law is patterned very closely after the Federal Law of the same title, there is little conflict in the provisions of the two laws. Products manufactured and sold within the State, subject to the approval of this department, can be sold interstate where the provisions of the Federal Act apply, or vice versa. Essentially this law prohibits the manufacture or sale of misbranded or adulterated food, drugs, and cosmetics. This includes commodities which constitute a danger to health, as well as an economic fraud. The laboratory of the department is completely equipped to examine practically all types of food, drugs, and cosmetics.

Under the provisions of the State Weights and Measures Act the department is required to keep a complete set of reference standards of weight, volume, and linear measure. The standards are calibrated for accuracy at intervals of not less than ten

years by the Bureau of Standards in Washington. Field-testing equipment is calibrated against the office standards and is used in checking all weighing or measuring devices, regardless of type, throughout the state. Citizens of the state are privileged to submit measuring devices of any description for calibration with the office standards. Commodities sold by weight, measure, or numerical count are periodically checked by the Department for compliance with their declared weights.

To the Petroleum Products Inspection Department is delegated the duty of enforcing the state specifications and standards for gasoline and lubricating oils. Specifications for gasoline are incorporated in the law. Such standards insure that a product sold as gasoline is entirely suitable for internal combustion engines and is not a petroleum product of less volatile nature, such as kerosene, stove oil, or distillate. Lubricating oil must be of the same grade as advertised on the dispensing container.

In addition to the duties described above, prescribed by law, this department is pleased at any time to investigate cases in which the products involved constitute a public health menace or an economic fraud.

The State Veterinary Control Service

STAFF

John O. Moseley, M.A., LL.D., President of the University.
Charles H. Gorman, Honorary M.S., LL.D., Vice President and Comptroller.
Edward Records, V.M.D., Director.
Agnes Hilden, B.S., Technician.
Shirley M. Avansino, Secretary.

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 to aid in the field work conducted by the State Department of Agriculture, the State Board of Sheep Commissioners, and the United States 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.

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
MINING BRANCH

The Mining Branch conducts engineering examinations of mineral deposits, explores and samples deposits, and studies new mining and milling methods. The Branch conducts experimental work on methods of exploration and mining, investigates the mining possibilities of individual districts as they relate to the minerals industry, and demonstrates the most effective methods for extracting previously unused ores. Operations are controlled through divisional field offices.

RENO BRANCH, MINING DIVISION

STAFF

A. C. JOHNSON, Chief.
RUSSELL R. TRENGROVE, Mining Engineer.
WILLMAR T. BENSON, Mining Engineer.
EDWARD J. MATSON, Mining Engineer.
MRS. DOROTHY C. TEASS, Secretarial Clerk.
MRS. GEORGIA E. HOOPER, Clerk.

Field Office, 507 Custom House, San Francisco, California.

STAFF

SPAGLER RICKER, Supervising Engineer.
F. J. WIEDELT, Mining Engineer.
MRS. NORMA W. MAYHALL, Clerk-Stenographer.

METALLURGICAL BRANCH, RARE AND PRECIOUS METALS EXPERIMENT STATION

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 Metallurgical Branch conducts fundamental and applied research on the conservation, preparation, and utilization of metals and nonmetals, develops new metallurgical methods dealing with beneficiation processes, new techniques, and special equipment, and analyzes and tests ore samples. Operations are controlled through the Metallurgical Division, Washington, D. C.

STAFF

J. B. ZADRA, Supervising Engineer.
ANDREW C. RICE, Ph.D., Chemist.
CLYDE E. ARRINGTON, M.S., Analyst.
HOWARD L. HEINAN, Chemist.
RAYMOND S. LAMBERT, Chemical Analyst.
A. L. ENGEL, Metallurgist.
HARRY F. MCCRAY, Laboratory Mechanic.
ARTHUR F. FOSTER, Chief Clerk.
THERESA V. CAPRIO, Clerk.

United States Geological Survey, Geophysical Section,
C. H. SANDBERG, *Geophysicist in Charge.*

Record For 1948-1949

Recipients of Scholarships and Honors

1948–1949

The Jewett W. Adams Scholarships of $100 each.

Carol Anderson	Harrie Fox Hess
Althea Benedict	Robert C. Horton
John W. Brown	Marnie Miller
James Helmick	Dale L. Riley
Robert W. Houser	Robert B. Yorty

The Armanko Office Supply Scholarships. An award of $100 each.

In Chemistry.....Wallace Schultz
In Physics.....Marrium Taylor

The Josephine Beam Scholarships of $250 to Reno or Sparks students; $400 to a student not residing in Reno or Sparks.

Edwin K. Beauchamp	Dayne H. Howard
Mary M. Brockett	George E. Kock
Ivan L. Eisenberg	Alten A. Pedersen
Edna M. Gregory	Beverly Poe
Barbara Ann Gulling	Richard E. Williams

The Horace P. Boardman Scholarship in Civil Engineering, $100.

Fred Talley

The Frank O. Broili Scholarship in Electrical Engineering, $100.

Wallace Green

The Marye Williams Butler Scholarships, $25.

Anthony Mardellis	Joseph Wirsching
Grove Nooney	James Peirson

The Reno Business and Professional Women's Club Scholarship. An award of $50.

Winneva F. Miller

The Arzo E. Cheney Scholarship in English, $125.

George Bennett

The Charles Elmer Clough Scholarships in Engineering, $150.

Jerome Kegel Harold R. Ciari

The Daughters of the American Revolution Scholarship, $50.

Marion Neilsen

THE MAJOR MAX C. FLEISCHMANN SCHOLARSHIPS. An award of $200 each to Reno or Sparks students; $400 to those whose homes are not in this vicinity.

Kaare Aalde	Boleslaus Kastenas
Althea Benedict	Leonard Katz
Moray Black	Joe R. Mathis
George Braun	Jeanne McBride
Patricia L. Burkhalter	Howard McKissick
Barney Childs	John R. Miller
Norma Jean Carruth	Albert Richardson
Rosalie Enke	Rondell Shaw
Harvey B. Foulkes	Andrea Smart
Fay E. Fryberger	Kristian Tonning
Robert L. Gifford	Herbert G. Walter
Gunter Gigas	Rose Mary Welch
Anna Lu Hansen	Scott Whitney
Bruce M. Hill	Robert Yim

THE MAJOR MAX C. FLEISCHMANN SCHOLARSHIPS for entering Freshmen; $250 to Reno or Sparks students, $400 to a student whose home is not in this vicinity.

Barbara Carruth	Charlotte Johnson
James Etcheto	Cecilia I. Maretoli
William F. Engel	James L. Walsh
William A. Jackson	Suzanne L. Wastun
Stanley E. Jones	

THE ROLAND HUMPHREY GOODWIN SCHOLARSHIP IN MUSIC, $50.
Thomas Godbey

THE GRAND ARMY OF THE REPUBLIC SCHOLARSHIP, $50.
Delores Spradling

THE HERD AND SHORT SCHOLARSHIP, $100.
Robert Carrick

THE KENNECOTT COPPER COMPANY SCHOLARSHIP, $750.
Robert C. Horton

THE CARRIE BROOKS LAYMAN MEMORIAL SCHOLARSHIP, $200.
John Peter Lee

THE WILLIAM S. LUNSFORD SCHOLARSHIP in Journalism, $100.
Peter Mygatt

THE HONORABLE WILLIAM O'HARA MARTIN AND LOUISE STADTMULLER MARTIN SCHOLARSHIP in History and Political Science, $50.
Moray Black

THE ROSE SIGLER MATHEWS SCHOLARSHIPS, $100.
Julia Wikstrom
Richard Trachok
William Devlin

THE EMPORIUM OF MUSIC SCHOLARSHIP, $100.
Donald Thompson

THE PREMEDICAL–PRENURSING SCHOLARSHIP, $100.
Irving Crawford

THE NEVADA STATE PRESS ASSOCIATION SCHOLARSHIP IN JOURNALISM. An award of $100.
Doris Hanssen

THE ROTARY CLUB OF RENO SCHOLARSHIP, $100.
Mark S. Bray, Jr.

THE SEARS ROEBUCK AGRICULTURE FOUNDATION SCHOLARSHIP, $200.
Raymond Azola

THE SEMENZA SCHOLARSHIP in Economics, Business, and Sociology.
Leslie E. Hawkins

THE REUBEN C. THOMPSON SCHOLARSHIP in Philosophy, $100.
Edwin C. Reed, Jr.

THE RAYMOND SPENCER SCHOLARSHIP in Electrical Engineering, $150.
Earl Houghtaling

THE MARY ELIZABETH TALBOT MEMORIAL SCHOLARSHIP in Mathematics, $300.
John Chamberlin

THE RITA HOPE WINER MEMORIAL SCHOLARSHIP, $50.
Marilyn James

SPECIAL PRIZES AND AWARDS

THE AMERICAN ASSOCIATION OF UNIVERSITY WOMEN HONORARY MEMBERSHIP AWARDS.
Patricia Ireland Harriet Lee
Marjorie Menu

THE A. W. (BERT) CAHLAN SCHOLARSHIP, $200.
James Glynn

THE GINSBURG JEWELRY COMPANY AWARD of a fine watch.
Elinore McCray Maclin Summers

GOVERNOR'S MEDAL FOR MILITARY PROFICIENCY.
Gordon Lea Hayes

THE KLUTE FOREIGN LANGUAGES PRIZES, $50.
Jack C. Collins Joyce Neilsen
Eugene Grotegut Genevieve Swick

THE FRENCH MEDAL.
Angela Constantinidou

THE HENRY ALBERT SENIOR PUBLIC SERVICE PRIZES FOR SCHOLARSHIP, $37.50.
James Borge Patricia Ireland

Elected to PHI KAPPA PHI:

STUDENTS

Kaare Aalde
Warren Howard Adams
Eleanor Frances Brown
Robert Barney Childs
John Leslie Chamberlin
John Theodore Helstowski
Abe Kaplan
John Leroy Lowden
Joe Robinson Mathis
Emma Jeanne McBride
Bonny Louise Molignoni
Rita Angela Mortara
Joyce Winifred Nielsen
Edward Cornelius Reed, Jr.
Wallace Wendell Schultz
John Joseph Spirig
Huling Eakin Ussery, Jr.
Joseph William Weihe
Scott Cameron Whitney
Bonifacio Yturbide

ALUMNI

Roger Corbett
Raymond Guild Gray

FACULTY

Paul Eldridge
James Julian Hill
Joe Eugene Moose

HONOR ROLL OF THE SENIOR CLASS

Carol Anderson
Pablo Arenaz
James Borge
Reagan Breese
Zina Coe
Angela Constantinidou
Lyle Creed
Gene Donaldson
Jack Fulton
Bert Hildebrand
Frances Kennedy
Loven Kirkbridge
Harold McNeilly
Marguerite Molk
Barbara Olesen
Franklin Rittenhouse
Jane Littlefield Trail
Huling Ussery
Ernest Wilson
George Yori
Patricia Ireland

HONOR ROLL FOR THE FOUR-YEAR COURSE

Zina Coe
Virginia Cole
Angela Constantinidou
Patricia Ireland
Effie McQueen
Barbara Olesen
Jane Perkins
Ernest Wilson

THE GOLD MEDAL

Patricia Ireland

GRADUATES

Diplomas and degrees were awarded on Commencement Day, June 7, 1948, as follows:

MASTER OF ARTS

Alene Robinson De Ruff
R. Guild Gray
John R. Liotto (Aug. 29, 1947)
Carl Robert Swartz

MASTER OF SCIENCE

Louis Joseph D'Antonio
Manuel Felix Drumm
Stuart Milton Lee (Aug. 29, 1947)
Abraham Ravve (Jan. 30, 1948)
Joseph William Weihe

BACHELOR OF ARTS

†Carol Ruth Anderson
Donna Anderson
(Jan. 30, 1948)
Pablo Arenaz
Frank J. Bacigalupi, Jr.
Richard Baker
William P. Beko
(Jan. 30, 1948)
Virginia Hand Bergmann
Berkeley W. Black
Marian Virginia Booth
(Aug. 29, 1947)
Kathryn Elizabeth Boyle
James H. Bradshaw
Frederick Braito
William A. Brinkerhoff
(Jan. 30, 1948)
Orin Verne Brown
John Kingsley Brozo
(Aug. 29, 1947)
*Alberta Jean Bruner
Roberta Eleanor Butler
Herbert Chiara
(Aug. 29, 1947)
Ernest Maurice Cicchese
Lois Cobia
††Zina Ellen Coe
†Virginia Cole
Jack Cornelius Collins
†Angela Constantinidou
*Jeanne Forson Creed
Lyle Kim Creed
Vivian Bramble Davis
Laura Lide Dearing
(Jan. 30, 1948)
John William Diehl
(Aug. 29, 1947)
Alice Ruth Doyle
(Jan. 30, 1948)
Lora Jean Drown
Robert Clifton Durham, Jr.
Josephine Jeffries Eather
Jordan Eliades
Bernadette Lois Ertter
*Alice Etchart
Eugene Thomas Evans
Billy Tate Foster
(Aug. 29, 1947)
†Jack Ryan Fulton
Virginia Maxine Gardner
William M. Gavitt
(Aug. 29, 1947)
Mary Lou Gerrans
Marillyn Reynolds Glynn
Marion Elizabeth Gotberg
Robert E. Gould
(Jan. 30, 1948)
Orsie S. Graves
Helen Hackett
(Jan. 30, 1948)
‡Gloria Haley
Howard John Haman
(Jan. 30, 1948)
*Merrie Jo Harp
Billy Jane Heath
William James Henley, Jr.
(Aug. 29, 1947)
†Bert D. Hildebrand, Jr.
Dorothy Elaine Hooper
‡†Patricia Clare Ireland
Arthur Wellesley Johnson
Carol Keith
Ida Mae Kellough
*Frances W. Kennedy
Albert Raymond Lazzarone
(Aug. 29, 1947)
Harriet Maxine Lee
Josephine Adeline Marisquirena
Jeanne McBride
Junerwanda Jennings McMichael
†Effie J. McQueen
(Jan. 30, 1948)
Fausto Mentaberry
*John Randall Miller
Marguerite Cox Molk
Nora Morris
(Jan. 30, 1948)
Frances Muguira
(Aug. 29, 1947)

BACHELOR OF ARTS—*Continued*

Joyce Winifred Nielsen
(Jan. 30, 1948)
†Barbara Ann Olesen
Pilar Adele Oyarbide
Girard Parker
Doris Patterson
*Vivian Joyce Perry
†Jane Perkins
Jacquelyn Christine Petersen
Edward Alexander Phillips
(Aug. 29, 1947)
Dorothy Pilkington
William John Raggio, Jr.
Leland Stanford Reese
Ralph Edwin Reynolds
(Jan. 30, 1948)
Franklin Pierce Ross Rittenhouse
Norman W. Rockholm
(Aug. 29, 1947)
Lloyd A. Rogers
Melvin Gene Rovetti
Janeth Arvilla Rowley
Nora Lorene Saunders
Mary Ellen Schwartz
Robert A. Singleton
(Jan. 30, 1948)
James Garfield Small
William Hubert Smithwick
Richard Harding Solt
(Aug. 29, 1947)
Louis P. Spitz
Henry Stewart
Forest Keith Swartz
Genevieve Marie Swick
Jane Littlefield Trail
Nona Lee Tuttle
Huling Eakin Ussery, Jr.
†Patricia Glyn Ussery
Elmer Ronald Vacchina
(Aug. 29, 1947)
Elaine Van Meter
†Carol Elaine Wager
Paul E. Weaver, Jr.
James Henry Welin
Gerald F. Wetzel, Jr.

BACHELOR OF SCIENCE

†James Delbert Borge
Robert Mauro Brambila, Jr.
Walter George Case
Donald George Cooney
(Aug. 29, 1947)
Andrew Jack Dieringer
(Jan. 30, 1948)
Lavina Ramelli Digino
(Aug. 29, 1947)
Mahlon David Fairchild
Charles Elliot Fleming, Jr.
Donald Scott Johnson
Henry William Jones
(Jan. 30, 1948)
Marjorie Jerome Kelley
(Aug. 29, 1947)
Robert Irving Meyer
(Aug. 29, 1947)
Merton M. Mickelson
Dorothy Jean Streng Monsanto
(Aug. 29, 1947)
Richard Kevin O'Connell
Ethel Annie Pettis
George Elwood Ricker
Lorraine Serpentino
Bert Tannenbaum
Elizabeth June Tracy

BACHELOR OF SCIENCE IN BUSINESS ADMINISTRATION

Robert William Ast
Patricia L. Burkhalter
George L. W. Clark
Leo Demetras
†Gene William Donaldson
James Thomas Goodin
Carol Arlene Gunderson
Marjorie Jean Menu
Ashley Van Slyck

NORMAL SCHOOL DIPLOMA

Virginia Sarah Abalos
Beverly Jane Birch
(Aug. 29, 1947)
Marjorie Evelyn McClurkin
Marjorie Merab Swenson

BACHELOR OF SCIENCE IN AGRICULTURE

†Clarence Edward Byrd (Jan. 30, 1948)
Howard Eugene Farrell
John Robert Gamble (Aug. 29, 1947)
Harold Dean McNeilly
George F. Potts
Douglas Howard Trail
Robert John Whelan
George Eugene Yori

BACHELOR OF SCIENCE IN HOME ECONOMICS

†Dorothy Thomas
Ruth Mary Wallace (Jan. 30, 1948)

BACHELOR OF SCIENCE IN CIVIL ENGINEERING

Edgar Wayne Blair
William Canessa (Jan. 30, 1948)
Elmo Joseph DeRicco
Carl Emil Franson, Jr. (Jan. 30, 1948)
Richard Maurice Jackson
Richard W. Meffley
James Mervyn Morris, Jr.
John Edgar Witte
Alfred Melvin Woodgate

BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING

Evo Giorgi (Jan. 30, 1948)
William Gustin
Robert Lee Howard
Harry John Kaul
Loren Allen Kirkbride
Henry Jackson Owen
Daniel Alan Rice
Thomas Jefferson Salter
Willard Bruce Tribble
Edward Robert Uhlig
†Ernest Franklin Wilson

BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING

William Clive Andersen
Douglas O. Bevans (Jan. 30, 1948)
Bernard Patrick Brady, Jr. (Jan. 30, 1948)
Charles Reagan Breese
Charles Frederick Coe
George Milton Cundiff
James Mercer Glynn
G. B. Hanford, Jr.
Harold Paschall Keller
Walter Raymond Riggle (Jan. 30, 1948)
William M. Sodja
John Peter Tallia

BACHELOR OF SCIENCE IN METALLURGICAL ENGINEERING

Charles Robert Frisbie (Jan. 30, 1948)
John E. Martinson

BACHELOR OF SCIENCE IN MINING ENGINEERING

Galen Edward de Longchamps (Jan. 30, 1948)
Roy Kniveton Dondero
Joseph Mathew Ellis
John F. Fagan
Preston Lee Funkhouser, Jr. (Jan. 30, 1948)
William Anderson Harrigan
Hugh Cochrane Ingle, Jr.
Robert Eli Kendall
Douglas C. Launer
Lee Bernard McConville, Jr.
Marvin Fred Porteous (Jan. 30, 1948)
Lloyd Leo Root, Jr.
John G. Roscoe
Edward St. Clair Scott
Robert Loche Swain
Richard George Wadlman (Jan. 30, 1948)
Hugh Wilson, Jr. (Jan. 30, 1948)
Robert Charles Youtz

BACHELOR OF SCIENCE IN GEOLOGICAL ENGINEERING

Hale C. Tognoni

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*Receives also Teacher's Diploma of High School Grade.
‡Receives also Teacher's Diploma of Grammar Grade.
†Elected member of Phi Kappa Phi.

ROSTER OF STUDENTS

Fall and Spring Semesters

1948–1949

Explanations of Abbreviations

A&S.....Arts and Science
Ag.....College of Agriculture
CE.....School of Civil Engineering
EE.....School of Electrical Engineering
HE.....School of Home Economics
ME.....School of Mechanical Engineering
MM.....Mackay School of Mines

Fr.....Freshman
So.....Sophomore
Jr.....Junior
Sr.....Senior
Gr.....Graduate
Sp.....Special

Name	College	Classification	Home Address
Aalde, Kaare	MM	Sr.	Sparks
Abdella, Amelia	HE	Sp.	Reno
Abercrombie, Elaine Helen	A&S	Jr.	Boulder City
Abrams, Marvin Colin	A&S	Fr.	Reno
Abry, Phillis	A&S	Jr.	Reno
Adams, Gary J.	A&S	So.	Reno
Adams, Thomas Shilling	A&S	Fr.	Piedmont, Calif.
Adams, Warren Howard	A&S	Sr.	Arnold, Nebr.
Adams, Vinn Lester, Jr.	MM	Fr.	Inden, Mo.
Adams, Wayne Brewster	EE	Fr.	Reno
Affleck, Harold Wayne	CE	Fr.	Boise, Idaho
Ahlswede, Arthur Clarke	A&S	Fr.	Yerington
Aiazzi, Raymond Guy	A&S	So.	Carlin
Aikin, Brenton Relzy	A&S	Fr.	Reno
Aikin, Donald Lyle	A&S	Fr.	Henderson
Alan, Barbara Jean	A&S	Fr.	San Francisco, Calif.
Alauzet, Betty Theresa	A&S	Fr.	Reno
Aldrich, Alexander H., Jr.	A&S	Fr.	Fernley
Aldrich, Catherine Mae	A&S	Sr.	Fernley
Alldredge, Elaine	A&S	So.	Las Vegas
Allen, Babette	A&S	So.	Reno
Allen, Jack Hamill	A&S	Fr.	Pasadena, Calif.
Allred, Mary Ann	A&S	Fr.	Lovelock
Allen, Robert Rapha	A&S	Jr.	Reno
Allen, Roland Duke	ME	Fr.	Reno
Alzola, Raymond Robert	Ag	So.	Rowland
Ames, Georgia Marion	HE	Fr.	Oakland, Calif.
Anderson, Chester James	A&S	So.	Reno
Anderson, DeLoy Harold, Jr.	A&S	Fr.	Ely
Anderson, Donald Stephen	Ag	Fr.	Elko
Anderson, Gilbert A.	CE	Fr.	Winnemucca
Anderson, Harry Daneel	Gr.		Reno
Anderson, John Edgar	A&S	Fr.	Sparks
Andrae, Barbara	A&S	Fr.	Tuscarora
Annand, Patricia Ann	A&S	Fr.	Reno
Apalategui, Frank James	CE	So.	Yorba Linda, Calif.
Arak, Harry	MM	Jr.	W. Hollywood, Calif.
Arant, William B.	A&S	Fr.	Reno

Name	College	Classification	Home Address
Arbon, Edwin Ray	A&S	Fr.	Reno
Arciniega, Edward	A&S	Fr.	Los Angeles, Calif.
Arentz, Alice Catherine	A&S	So.	Reno
Argabright, William Keith	A&S	So.	Alturas, Calif.
Armstrong, Blanche Rita	A&S	Jr.	Reno
Ashley, Alfred Wayne	EE	So.	Reno
Assuras, George Gust	MM	Fr.	McGill
Asta, Vincent J.	A&S	Jr.	Elk Grove, Calif.
Atkins, Don Fraser	A&S	Fr.	Nevada City, Calif.
Atkins, Frances Edna	A&S	Fr.	Reno
Atkins, John T.	MM	So.	Needles, Calif.
Atkinson, James Russell	A&S	So.	Reno
Atkinson, William D.	A&S	So.	Reno
Atwood, Jay Dale	Ag	Fr.	Reno
Audrain, Dawna	A&S	Jr.	Reno
Audrain, Thornton Leroy	A&S	Sr.	Reno
Aurelio, Anthony	A&S	Fr.	Boston, Mass.
Austad, Robert George	EE	Fr.	Reno
Averett, Mary Louise	A&S	Fr.	Caliente
Averett, Walter Reed	A&S	Jr.	Caliente
Ayala, Constance L.	A&S	Fr.	Boston, Mass.
Badalich, George M.	A&S	Fr.	So. St. Paul, Minn.
Bader, Robert Jared	ME	Fr.	San Francisco, Calif.
Baehr, Jeanne Evelyn	A&S	Fr.	Alturas, Calif.
Bailey, Virginia Lee	A&S	Fr.	Quincy, Calif.
Baird, Robert Clifford	A&S	Fr.	Reno
Baker, Douglas	MM	Sr.	Boulder City
Baker, Harold Wilcox	Ag	Fr.	Yerington
Baker, Harry Eugene	CE	Fr.	Reno
Baker, Henry Albert	Ag	Fr.	Sparks
Baker, Herbert Curtis	A&S	Sr.	Yerington
Baker, Lloyd Alden	A&S	Fr.	Reno
Baker, Phyllis Claudia	A&S	Jr.	Sacramento, Calif.
Baker, Ray Gordon	MM	Fr.	Hendricks, W. Va.
Balaam, Beverly Lou	A&S	Fr.	Sacramento, Calif.
Ball, Emmett Borden, Jr.	MM	Fr.	Ontario, Calif.
Bandoni, Robert Joseph	A&S	Fr.	Babbitt
Banta, Benjamin H.	A&S	Jr.	Reno
Banta, Clifford W.	A&S	Sr.	Leevining, Calif.
Banta, Roger Wade	A&S	Jr.	Bishop, Calif.
Barakat, Ruth Louise	A&S	Jr.	W. Philadelphia, Pa.
Barbagelata, Alfred A.	A&S	Jr.	Reno
Barbash, Jo Ann	A&S	So.	Reno
Barbash, Roger Sheldon	A&S	So.	Reno
Barbieri, Aurelio Alfred	A&S	So.	Reno
Barengo, Mary Maloney	HE	Sr.	Reno
Barger, Floyd Joseph	A&S	Fr.	Reno
Barham, Allen Thomas, Jr.	A&S	Fr.	Reno
Barkley, Gordon Foster	A&S	Fr.	Owyhee
Barkley, James Robert	MM	Sr.	Eastgate

Name	College	Classification	Home Address
Barnhill, James William	A&S	Fr.	Reno
Barnum, Jo Ann	A&S	Fr.	Eureka, Calif.
Barnum, Mary Eleanor	A&S	Fr.	Eureka, Calif.
Barrett, Fredrick B.	A&S	Fr.	Yerington
Barrett, Juanita Leona	A&S	Jr.	Reno
Barrios, Alberto H.	MM	Jr.	Reno
Barry, James Hardin	A&S	Fr.	Susanville, Calif.
Barry, John Michael	A&S	Fr.	Elko
Barry, Philip Cotter	A&S	Fr.	Lakeview, Ore.
Barry, Wesley Earl	CE	Fr.	Nevada City, Calif.
Barsanti, Elio Al	A&S	Jr.	Tonopah
Barta, James Joseph	A&S	So.	E. Chicago, Ind.
Bartl, Charles Peter	A&S	So.	Bijou, Calif.
Barto, Robert C.	A&S	Sp.	Reno
Bartolomei, Marjorie	A&S	So.	Pittsburg, Calif.
Barton, Thomas V., Jr.	MM	So.	S. San Francisco, Cal.
Bashista, Joseph		Gr.	Reno
Bassett, Elizabeth C.	Ag	Fr.	Reno
Bassett, Margaret Mary	HE	Fr.	Reno
Bates, Lois Ann	A&S	So.	Las Vegas
Batey, Thomas A.	A&S	So.	Sullivan, Ind.
Batt, Donna Dolores	A&S	Fr.	Carlin
Batt, Frances Mae	A&S	So.	Carlin
Battaglia, Leonard L.	A&S	Fr.	Reno
Baty, Gloria Jane	A&S	So.	Quincy, Calif.
Bauer, Arthur W., Jr.	A&S	Fr.	Las Vegas
Baughman, Frank F., Jr.	EE	Fr.	Sparks
Baumann, William Henry	A&S	So.	Niagara Falls, N. Y.
Baxter, George M., Jr.	A&S	Fr.	Carson City
Bay, Carol Gottschalck	A&S	So.	Reno
Beach, Freeman Hutchins	MM	So.	Menlo Park, Calif.
Beaman, George Bryan	A&S	Fr.	Yerington
Beamish, Robert L.	A&S	Fr.	Reno
Beard, Hazel Jeanette	A&S	Fr.	Sparks
Beasley, Winfield Scott	A&S	So.	Sullivan, Ind.
Beauchamp, Edwin Knight	A&S	Fr.	Ely
Beaupre, Louis John	Ag	Sp.	Washington, D. C.
Becker, Alvin Forman	A&S	Fr.	Hayward, Calif.
Becker, George Nathan	EE	Fr.	Honolulu, T. H.
Beets, Glen Frisco	A&S	Fr.	Goldfield
Behymer, Darrell Eugene	A&S	Fr.	Reno
Behymer, Ralph Dale	A&S	Fr.	Reno
Belew, William Morris	A&S	Sr.	Sparks
Bell, Arthur James	A&S	Sr.	E. McKeesport, Pa.
Bell, Enfield Benton	MM	So.	Elko
Bell, John Ormande	ME	Fr.	Reno
Bell, Roy Alan	CE	Fr.	Independence, Calif.
Bell, Shirley Jeanne	A&S	So.	Las Vegas
Bell, Thomas Graham	A&S	Jr.	Henderson
Belongie, Eugene Arthur	CE	Fr.	29 Palms, Calif.

Name	College	Classification	Home Address
Benedetto, Alton Francis	A&S	So.	Oakland, Calif.
Benedict, Althea Belle	HE	Sr.	Babbitt
Benedict, Carl Stuart	A&S	So.	San Francisco, Calif.
Benna, Bruno	A&S	So.	Richmond, Calif.
Bennett, Elizabeth		Gr.	Reno
Bennett, Esther Laiola	A&S	Jr.	Reno
Bennett, George Donald	A&S	Jr.	Tonopah
Bennett, Henry Raymond	EE	Fr.	Carson City
Bennett, Thomas Joseph	A&S	Fr.	Chicago, Ill.
Benson, George Howard	A&S	Jr.	McGill
Benson, John Willmar	A&S	Fr.	Reno
Bergendorf, Jane	A&S	Fr.	Oakland, Calif.
Berger, Margaret Jean	HE	Fr.	Carson City
Berry, Barnes Joseph	A&S	Sr.	Reno
Berry, Henry Kingsbury	A&S	So.	Reno
Berry, Olive	A&S	Sp.	Sparks
Bianchi, Marino W.	A&S	Jr.	Fallon
Bier, James Francis	CE	Jr.	Palmyra, Mo.
Biglieri, Clyde Ernest	A&S	So.	Reno
Billman, Ervin Lewis	ME	Fr.	Twin Falls, Idaho
Bingham, LaVonne A.	A&S	So.	Las Vegas
Binyon, Kathryn J.	A&S	Fr.	San Francisco, Calif.
Birdsall, Wallace O.	ME	Jr.	Reno
Bissett, John Roger	A&S	Fr.	Reno
Bissiri, Augusto, Jr.	CE	Fr.	Los Angeles, Calif.
Black, Joseph Lee	A&S	Fr.	Reno
Black, Lorne Summers	A&S	So.	Reno
Black, Moray Joan	A&S	Jr.	Reno
Black, William Parker	A&S	Fr.	Carson City
Blackham, Don Ordell	A&S	So.	Dividend, Utah
Blackham, Thomas Jack	EE	Jr.	Dividend, Utah
Blair, Molly	HE	So.	Portland, Ore.
Blake, John Leslie	A&S	Fr.	Reno
Blank, Joan Leigh	A&S	Fr.	San Francisco, Calif.
Blattler, Austina Loutishie	A&S	Fr.	Truckee, Calif.
Bliss, Hatherly	A&S	Fr.	Piedmont, Calif.
Boal, Robert M.		Gr.	Reno
Boardman, Arthur Maurice	A&S	Jr.	Reno
Boese, Robert Paul	A&S	So.	Eureka, Calif.
Boettcher, Jerome Ward	MM	So.	Vallejo, Calif.
Boggess, Betty Sue	A&S	Sr.	Reno
Boies, Eyer Horace	Ag	So.	Wells
Bond, John Crane	A&S	Fr.	Reno
Bondley, George B.	A&S	Fr.	Las Vegas
Bondurant, Robert T.	A&S	So.	Ely
Borsack, Donald Edward	A&S	Fr.	Las Vegas
Bosler, Edward John	EE	So.	Reno
Bowden, William George, Jr.	A&S	So.	Las Vegas
Bowers, Millard Roland	A&S	Jr.	Fallon
Bowman, Thomas Don	MM	Fr.	Las Vegas

Name	College	Classification	Home Address
Boyd, Dunston Frank	ME	Fr.	Bishop, Calif.
Boyd, Fred Smiley, Jr.	MM	Fr.	Loomis, Calif.
Boyd, William Samuel	A&S	Fr.	Reno
Boyer, Gordon Norris	CE	Jr.	San Francisco, Calif.
Boyer, Pat Louise	A&S	Fr.	Reno
Boyle, Edward Joseph	CE	Fr.	Reno
Boyle, Mary Jane	A&S	Sr.	Sparks
Boyles, Lois May	HE	Jr.	Milwaukee, Wis.
Boynton, John Wesley, Jr.	ME	So.	Winnemucca
Brackett, William Lee	A&S	So.	Reno
Bradford, Edward Wayne	A&S	Sr.	Reno
Bradshaw, Robert Earl	A&S	Fr.	Reno
Brady, Maurice Hugh	MM	Jr.	Baker, Ore.
Brander, Roger Wayne	A&S	Sr.	San Francisco, Calif.
Bratmon, Fred Murray	ME	So.	Long Beach, Calif.
Braun, George Otto	A&S	Fr.	W. Hartford, Conn.
Bray, Mark Stanley, Jr.	A&S	Jr.	Gardnerville
Brennan, James Albert	A&S	Fr.	Las Vegas
Brennan, Kathryn Ann	A&S	Jr.	Loomis, Calif.
Bright, James Jewett	A&S	So.	Bishop, Calif.
Bright, Sandra Reaves	A&S	So.	Bishop, Calif.
Bright, William C., Jr.	A&S	Fr.	Reno
Briner, William S.	A&S	Fr.	Auburn, Calif.
Broadbent, Susan	A&S	Jr.	Ely
Brockett, Mary Maxine	A&S	Fr.	Pioche
Brockway, Merla Ann	A&S	Fr.	Las Vegas
Brooke, James Royal	EE	Fr.	Sparks
Brooks, Barry	Ag	Fr.	Reno
Brooks, Dudley Wilder	A&S	So.	Columbus, Ohio
Brown, Betty Jean	A&S	Sr.	Reno
Brown, Charles Gordon	A&S	Fr.	Reno
Brown, Clarence Ace, Jr.	A&S	Fr.	San Luis Obispo, Cal.
Brown, Colleen Macrea	A&S	Fr.	Reno
Brown, Darrell Lee	CE	Fr.	San Francisco, Calif.
Brown, Eleanor Frances	A&S	Sr.	Reno
Brown, Frederick Elden	ME	So.	Long Beach, Calif.
Brown, Gene Hatcher	A&S	Fr.	Reno
Brown, George Joseph	A&S	Fr.	Reno
Brown, Jack Lee	A&S	So.	Salt Lake City, Utah
Brown, John Webster	CE	Jr.	Reno
Brown, Margaret Ann	A&S	Fr.	Reno
Brown, Meryde Grace	HE	Sr.	Winnemucca
Brown, Nannette	A&S	So.	Reno
Brown, Patty Lou	A&S	Fr.	Wells
Brown, Ralph Bellingall	A&S	Fr.	Winnemucca
Brown, Vance Eugene	EE	Fr.	Boulder City
Brown, Velda Chesley	A&S	So.	Boulder City
Browne, Howard Edgar, Jr.	A&S	Fr.	Reno
Brownell, Lester Gideon	ME	Fr.	Sacramento, Calif.
Browning, LaVonne Jean	A&S	Fr.	Sparks

Name	College	Classification	Home Address
Broyles, Stewart Fleming	CE	So.	San Francisco, Calif.
Brubaker, Ronald Wayne	MM	So.	LaVerne, Calif.
Bruch, Harter Ross	CE	Jr.	Sacramento, Calif.
Brueckner, Guenther W.	A&S	So.	Reno
Brummelkamp, John	A&S	So.	Pasadena, Calif.
Brundy, Richard James	A&S	Sr.	Las Vegas
Brunton, Arthur Frederick	MM	Sr.	McGill
Brunton, George Delbert	MM	Jr.	McGill
Brunton, Mary Lou	A&S	So.	McGill
Brush, William Parshall	A&S	So.	Carson City
Bryant, Robert Stanley	CE	Sr.	Los Angeles, Calif.
Buck, William Ellory	A&S	Sr.	Boulder City
Buckman, David Lee	A&S	Fr.	Reno
Bucknell, William Robert	A&S	Fr.	Reno
Bull, Portia	A&S	Jr.	Reno
Bunker, Owen S.	A&S	So.	Bunkerville
Buol, Lorena Case	A&S	Fr.	Tonopah
Buonamici, Rino	ME	Fr.	Reno
Burg, Mary Lou	A&S	Fr.	West Bend, Wis.
Burgemeister, Dean Cleo	EE	Fr.	Sacramento, Calif.
Burke, Robert Alan	CE	Fr.	Reno
Burke, Vincent Herbert	A&S	Fr.	Ely
Burkholder, Constance D.	A&S	Jr.	Henderson
Burnett, Wallace Franklin	A&S	Fr.	Reno
Burr, Elizabeth Marie	A&S	Sr.	Las Vegas
Burr, Helen Louise	A&S	So.	Las Vegas
Butterfield, Franklin Wells	MM	Sp.	Reno
Butterfield, Patricia L.	HE	Fr.	Reno
Butz, Louis Francis	CE	Fr.	Nevada City, Calif.
Byars, Howard Marvin	CE	Fr.	Reno
Byrd, Gwenneth Jeanne	A&S	So.	Reno
Cafferata, Russell W.	A&S	Fr.	Reno
Cain, John Stuart	MM	So.	Bridgeport, Calif.
Calder, Joan	A&S	So.	Winnemucca
Callahan, Eddie Francis	CE	Fr.	Reno
Callahan, Evelyn Marguerite	A&S	Sr.	Reno
Calvert, Robert Wood	A&S	So.	Reno
Cammerano, Augustine	A&S	Sr.	Garfield, N. J.
Campbell, John Logan	A&S	So.	Los Angeles, Calif.
Campbell, Robert Elton	A&S	Sr.	Highlands, Calif.
Campbell, Ross Arnold	A&S	Fr.	Reno
Canady, Alta June	A&S	Sr.	Sparks
Cann, George Rodney	A&S	Jr.	Reno
Cannan, John Patrick	A&S	So.	Reno
Cantlion, Henry Charles	A&S	Fr.	Reno
Caprio, Josephine Rose	A&S	So.	Reno
Cardenas, Sara Suarez	A&S	Fr.	San Francisco, Calif.
Cardinalli, Guy F.	A&S	So.	Eureka
Carey, Cecil Paul, Jr.	CE	So.	Orosi, Calif.

Name	College	Classification	Home Address
Carlile, Elton Fenwick	MM	Fr.	Yuba City, Calif.
Carlsen, Charles R.	CE	Jr.	Reno
Carlson, Thomas Michael	ME	Fr.	Reno
Carmody, John Philip	A&S	So.	Chicago, Ill.
Carnel, Norma Grace	A&S	So.	Reno
Carnel, Norman Florian	A&S	Fr.	Reno
Carner, Maryann	A&S	Fr.	Las Vegas
Carns, Elizabeth	A&S	So.	Reno
Carr, Edwin Clarence	Ag	So.	Fallon
Carrick, Robert Warren	A&S	Sr.	East Ely
Carruth, Barbara	A&S	Fr.	Las Vegas
Carruth, Norma Jean	A&S	Jr.	Las Vegas
Carson, Thomas C.	A&S	So.	National City, Calif.
Carter, Barbara Jean	A&S	So.	Reno
Carter, Donald Leslie	A&S	Fr.	Elko
Carter, Dyle Marion	A&S	Fr.	Des Moines, Ia.
Carter, John Henry	A&S	Sr.	Perry, Ia.
Caruso, Carmel	A&S	So.	Dilliner, Pa.
Casella, Peter Joseph, Jr.	Ag	Fr.	Reno
Caserta, John Alfred	A&S	Sr.	Reno
Cassing, Bettye Jeanne	A&S	Fr.	Reno
Castagna, Edwin		Gr.	Reno
Cavin, Donald LaVone	MM	Fr.	Auburn, Calif.
Cavitt, Billie Louise	A&S	Jr.	Truckee, Calif.
Cedarholm, Joseph Preston	CE	So.	Sacramento, Calif.
Cerrita, Marion June	A&S	Fr.	Reno
Chalky, Dolores Mae	A&S	Fr.	Phoenix, Ariz.
Chalmers, Thomas Stuart	ME	Fr.	Grass Valley, Calif.
Chamberlin, John Leslie	A&S	So.	Los Angeles, Calif.
Chambers, Robert Lee	A&S	Fr.	Logandale
Chapman, Loring Frederick	A&S	So.	Reno
Charles, William Berry	Ag	So.	W. Los Angeles, Cal.
Charlesworth, Lois Mae	A&S	Jr.	Sacramento, Calif.
Charlton, Earle Perry, II	A&S	So.	Reno
Chatterton, Richard C.	EE	Fr.	Paia, Hawaii
Checchi, Albert Louis	A&S	Jr.	Sparks
Chester, James Edward	EE	Sr.	Bennington, Vt.
Chichester, Alice Audry	A&S	Fr.	Reno
Childress, Arthur Junior	EE	Sp.	Reno
Childs, Robert Barney	A&S	Sr.	Palo Alto, Calif.
Choy, John	MM	Jr.	San Francisco, Calif.
Christensen, Ernest J.	A&S	Fr.	Carson City
Christensen, Glen Clare	A&S	Jr.	Harrisburg, Ore.
Christensen, Ruth Helm	A&S	So.	Chula Vista, Calif.
Churchill, Florence E.	A&S	So.	Reno
Ciardella, Humbert J., Jr.	A&S	Fr.	Truckee, Calif.
Ciari, Harold Roy	EE	Sr.	Sparks
Cladianos, Pete Phillip	A&S	Fr.	Reno
Clancy, Michael Edward	Ag	Fr.	Bishop, Calif.
Clark, Glen Howard	EE	So.	McGill

Name	College	Classification	Home Address
Clark, Kenneth Marlow	MM	Jr.	Grass Valley, Calif.
Clark, Mildred Ruth	A&S	Sp.	Sparks
Clarke, Robert Gene	A&S	Fr.	Pasco, Wash.
Clarkson, James Thomas	CE	So.	E. Rutherford, N. J.
Clay, Gerald LaVerne	A&S	Jr.	Virginia City
Clayton, Lloydine D.		Gr.	Reno
Clemens, Thomas Ford	MM	Jr.	Sacramento, Calif.
Clements, Lloyd William	CE	Jr.	Windsor, N. D.
Cliff, Alice Joyce	A&S	Jr.	Franktown
Coates, Anita Christinia	A&S	Jr.	Sparks
Cobb, Honor Engelke	A&S	Jr.	Reno
Cobb, Jack LaMar	A&S	Sp.	Richmond, Calif.
Cobeago, Mitchell	A&S	Jr.	Winnemucca
Cochran, David Leo	ME	So.	Genoa
Cole, James Wayne	ME	Fr.	Pioche
Coleman, Morris	A&S	So.	Reno
Coli, Bruno Leado	A&S	So.	Verdi
Collett, Robert Drake	A&S	Fr.	Babbitt
Collings, David Abel	EE	Fr.	Los Angeles, Calif.
Collins, Benjamin Jere	MM	Sr.	San Fernando, Calif.
Collins, Chester Francis	MM	Jr.	San Jose, Calif.
Collins, Thomas William	A&S	So.	Bishop, Calif.
Colon, Richard Walter	A&S	Sr.	Reno
Colonder, Fred Edward, Jr.	A&S	Fr.	Maplewood, Mo.
Colton, Bonnie	A&S	Fr.	Sparks
Conaway, Geneve Lila	A&S	Jr.	Caliente
Condie, Bruce Austin	Ag	Fr.	Pioche
Conklin, William Joel	A&S	Fr.	Loyalton, Calif.
Connelly, Robert Neagle	EE	Fr.	Sacramento, Calif.
Connolly, Charles Edmund	A&S	Fr.	Columbus, Ohio
Connolly, Joseph John	A&S	Fr.	Columbus, Ohio
Cook, Woodrow Wilson	A&S	So.	Man, W. Va.
Cooley, George Vale	EE	Fr.	Richmond, Calif.
Cooper, Lloyd Eugene	Ag	Fr.	Sparks
Corbett, Neal Harvey	A&S	So.	Ely
Corbett, Priscilla Laughlin	A&S	So.	Ely
Corley, Robert Martin	A&S	So.	Los Alamitos, Calif.
Corporon, Everett Eugene	A&S	Fr.	Reno
Correll, Archalee	A&S	Fr.	Reno
Cotter, Richard Anthony, Jr.	ME	Fr.	Berkeley, Calif.
Coughlin, Phyllis Frances	A&S	Fr.	Reno
Coughlin, Robert John	EE	Fr.	Reno
Coughlin, Walter Edward	EE	Jr.	Reno
Covell, Calvin Crane	A&S	Fr.	Reno
Covington, Ed. Bonaparte, III	A&S	Fr.	Holtville, Calif.
Cowley, John Farnum, Jr.	MM	Fr.	Winnemucca
Cox, Nilda Lorraine	A&S	So.	Reno
Cozzalio, Jean Adeline	A&S	Fr.	Reno
Crabb, David B. K.	A&S	Fr.	Paauhau, Hawaii
Crandall, Patricia	A&S	Sr.	Las Vegas

Name	College	Classification	Home Address
Cranor, Joyce Elaine	A&S	Fr.	Reno
Craven, William Price	MM	Fr.	Fallen Leaf P. O., Lake Tahoe, Calif.
Crawford, Irving Pope	A&S	So.	Reno
Cremetti, Plinio John	A&S	Fr.	Reno
Crescenzo, Frank George	A&S	Sr.	Reno
Creveling, Robert LaRue	A&S	Sr.	Reno
Croce, Elizabeth Anne	A&S	Sp.	Livermore, Calif.
Crocker, Lenley Eugene	A&S	So.	Reno
Croft, Thomas Wright	A&S	Fr.	Reno
Cronick, Margaret Carol	A&S	Fr.	Las Vegas
Crosby, Fred D.	A&S	Fr.	Reno
Crosier, Barbara Ann	A&S	Fr.	Claremont, Calif.
Cross, Charles Burton, Jr.	A&S	Sp.	Tahoe City, Calif.
Cross, Sally Silver	A&S	Fr.	Tahoe City, Calif.
Crosson, Eva LaVerne	HE	Fr.	Elko
Crowe, Myrl Duane	MM	Fr.	*McGill*
Crystal, Georga	A&S	Fr.	Placerville, Calif.
Cudinsky, Anthony	A&S	Sr.	Reno
Cummings, Brian C.	A&S	So.	Watervliet, N. Y.
Cunningham, Donald	CE	Fr.	Eureka, Calif.
Cunningham, Donald John	MM	So.	Seward, Alaska
Cunningham, Dorothy Loa	A&S	Fr.	Reno
Cunningham, Hazel	A&S	Sp.	Reno
Curran, Jack	A&S	Fr.	Las Vegas
Currie, Alice LaVerne	HE	Fr.	Reno
Curtis, Mark, Jr.	A&S	Fr.	Phoenix, Ariz.
Curtis, Natalie Louise	A&S	Fr.	Reno
Cusick, Kenneth	A&S	Jr.	Reno
Dale, Harold Dana, Jr.	A&S	Sr.	*Manhattan Bch.*, Cal.
Damele, Bernard Glenn	Ag	Fr.	Eureka
Damkroger, Donald Albert	MM	Jr.	Wailuku, Hawaii
Damon, Lawrence Eugene	MM	Fr.	Reno
Damron, Lucille	A&S	So.	Ruth
Dana, Robert Putnam	Ag	Sr.	Pleasanton, Calif.
Dark, Gloria M.	A&S	Jr.	Reno
Darney, Lois	A&S	So.	Reno
Darney, Ronald Blaine	A&S	So.	Reno
Darrah, Elizabeth Anne	A&S	Fr.	Las Vegas
Davidson, Lydia Anita	A&S	Fr.	Las Vegas
Davis, Frederick Arthur, Jr.	A&S	So.	Reno
Davis, James Clark	A&S	Fr.	Spokane, Wash.
Davis, James Howard	ME	Jr.	Boulder City
Davis, Jerry Lee	A&S	Jr.	Placerville, Calif.
Davis, John Owens	EE	Fr.	Arnold, Pa.
Davis, Neil Jesse	MM	Fr.	Ruth
Davis, Russell Burton, Jr.	A&S	Fr.	Reno
Davis, Stanley Nelson	A&S	Sr.	Ceres, Calif.
Davis, Willis Lee	EE	So.	Boulder City

Name	College	Classification	Home Address
Dawley, Kenneth Frank	A&S	Fr.	Los Gatos, Calif.
Dawson, Donald Ray	EE	Sp.	Las Vegas
Dawson, Stewart Grant	EE	Fr.	San Mateo, Calif.
Daz, Roy Guido	A&S	Fr.	Montello
Deady, Robert Vernon	A&S	Fr.	Reno
Deal, William Allen	A&S	Fr.	Reno
Delanoy, Drake	A&S	So.	Reno
DeLauer, Leland Keith	A&S	So.	Oakland, Calif.
Deming, Don Dorion	A&S	Jr.	Reno
Dempsey, Earle Vernon	MM	Fr.	Reno
Demuth, Jeanne Marion	A&S	Fr.	Reno
Denton, Nixon Edward	A&S	Sr.	Bridgeport, Calif.
Depetris, Albert Stephen	MM	Fr.	San Francisco, Calif.
DePree, Hassel Albert	CE	Fr.	Paterson, N. J.
Dericco, Elmo LeRoy	A&S	So.	Lovelock
DeRuff, Robert Lee	CE	Fr.	Reno
DeRushia, Emery Jerome	A&S	Jr.	McCloud, Calif.
Devlin, William Richard	A&S	Jr.	Pittman
DeWalt, Patricia Marie	A&S	So.	Babbitt
DeWees, Wayne Leo	A&S	So.	Reno
Dhabolt, Eunice Eudora	A&S	Fr.	Carson City
Dibitonto, Sam Dario	ME	Fr.	Reno
Di Chiara, Alphonse	A&S	Fr.	Newark, N. J.
Dick, Ernest Beal	A&S	Sp.	Carlin
Dickerson, Belford C.	A&S	So.	Reno
Dickerson, Lois Midgley		Gr.	Reno
Diehl, Carol Lee	A&S	Fr.	Merced, Calif.
Diehl, Jack Fraser	ME	So.	Reno
Dieringer, Andrew Jack		Gr.	Reno
Dierlamm, Norma Helene	A&S	Fr.	Reno
Dillon, Clark Gulick	CE	Fr.	Hinsdale, Ill.
Dini, Joseph Edward, Jr.	A&S	Jr.	Yerington
Dixon, Richard Fredrick	A&S	Fr.	Oakland, Calif.
Dodds, Douglas Davis	EE	Jr.	Las Vegas
Dodge, Betty Lou	A&S	Fr.	Yerington
Dolan, Murray Vincent	A&S	Jr.	Sparks
Dolan, William Mark	A&S	Jr.	Carson City
Dondero, Alan Gerard	A&S	Jr.	Carson City
Donnels, Wayne Thomas	MM	Fr.	Richland, Wash.
Dorman, Edith H.	A&S	Sp.	Reno
Douglass, Douglas Allan	A&S	Fr.	Tonopah
Douglass, Mary Ann	A&S	So.	Reno
Doxey, Loren T.	EE	Jr.	Carlin
Doyle, John Thomas	A&S	Fr.	Susanville, Calif.
Doyle, William Thomas	A&S	Sr.	Reno
Drakulich, Duke	A&S	Sr.	Kimberly
Drakulich, Stanley Joe	A&S	Fr.	Kimberly
Drennon, Edgar Raymond	A&S	So.	Sacramento, Calif.
Drewette, Frederick Murray	A&S	So.	Reno
Drown, Charles M.	EE	Fr.	Lovelock

Name	College	Classification	Home Address
Drown, Ralph Dayton	CE	Sr.	Oroville, Calif.
Drown, Robert Joseph	A&S	Jr.	Lovelock
Duffy, Charles Creighton	A&S	Sr.	Sparks
Duggan, Dorothy Joan	A&S	Sr.	Oak Park, Ill.
Dulion, Alice Lenore	A&S	So.	Carson City
Dunbar, William Edward	A&S	Fr.	Glendale, Mass.
Dun Leavay, Charles A.		Gr.	Reno
DuPont, John Louis	CE	Jr.	Reno
DuPratt, Ronald Joseph	A&S	Sr.	Yerington
DuPuy, Robert Lowe	A&S	Fr.	Berkeley, Calif.
Durham, Dariel	A&S	So.	Reno
Dyer, Doris	A&S	So.	Reno
Dysle, Edward Charles	A&S	Fr.	Santa Cruz, Calif.
Eachus, Ruth Verna	A&S	Fr.	Las Vegas
Earl, John Rodney	CE	Sr.	Reno
Eason, James Rodney	A&S	Jr.	Sparks
Eason, Richard Lockhead	A&S	Jr.	Sparks
Eastby, Keith Lowell	EE	Fr.	Underwood, Minn.
Ebert, John William	EE	Jr.	Las Vegas
Ebert, William Henry	MM	Sr.	Sutton, Nebr.
Eccles, Samuel Franklin	A&S	Fr.	Reno
Eckles, Donald Robert	ME	Fr.	Los Angeles, Calif.
Eddy, Gloria Gwen	A&S	So.	Winnemucca
Eddy, Patsy Jean	A&S	Fr.	Winnemucca
Edgecomb, John Marston	A&S	Sp.	Reno
Edmunds, Earl August	A&S	Sr.	Reno
Edsall, Glenn Ellis	A&S	Fr.	Sparks
Edwards, J. Lawrence	Ag.	So.	Empire, Calif.
Edwards, Joyce LaBelle	A&S	Fr.	Fresno, Calif.
Eisenberg, Ivan Louis	A&S	Fr.	Las Vegas
Ekel, Thomas Milton	A&S	Fr.	Reno
Elder, Willard Duane	A&S	Jr.	Nichols, Iowa
Eliades, James	EE	Fr.	McGill
Eliades, Jordan		Gr.	East Ely
Elliot, Carol Jeanne	A&S	Jr.	Santa Monica, Calif.
Elmore, Richard	ME	Jr.	Babbitt
Elston, James Foster	A&S	Fr.	Carson City
Emidy, Theodore Eugene	MM	Fr.	Worcester, Mass.
Engel, William Fremont	A&S	Fr.	Reno
Engle, Floyd William	ME	Fr.	Caliente
Engle, Mary	A&S	Fr.	Caliente
English, Arthur Matthew	A&S	Jr.	Winnemucca
Engman, William	A&S	Fr.	Sparks
Enke, Helen Rosalie	A&S	Sr.	Elko
Ensslin, Theodore Gustav	A&S	Sr.	Porterville, Calif.
Estes, George Amos	A&S	So.	Medford, Mass.
Etchegaray, LeRoy Wayne	Ag.	Fr.	Eureka
Etchegoyhen, Jerome Ernest	CE	Fr.	Winnemucca
Etcheto, James Joseph	CE	Fr.	Reno

Name	College	Classification	Home Address
Etcheverry, Mary Jean	A&S	Fr.	Eureka
Eustachy, George Marius	A&S	So.	Oakland, Calif.
Evans, Dwaine Harold	A&S	Fr.	Sparks
Evans, Galen Lloyd	A&S	Fr.	Reno
Evasovic, Eli	A&S	Sr.	Reno
Facha, Joseph Ventura	ME	So.	Newcastle, Calif.
Fairchild, Margaret	HE	So.	Reno
Falconeri, Gennaro S.	A&S	Sr.	Reno
Falconieri, George Dennis	A&S	Fr.	Reno
Farnsworth, Ray Darwin	A&S	Jr.	Winters, Calif.
Faul, Rose Marie	A&S	Jr.	Carmel, Calif.
Fee, Patricia Anne	A&S	Jr.	Ft. Bidwell, Calif.
Feeger, John Albert	MM	Jr.	Elkhart, Ind.
Feit, Cornelius Joseph	A&S	So.	Long Island, N. Y.
Fenkell, Jack	A&S	So.	Mina
Fiddes, Paul Eugene	MM	Sr.	Ruth
Fields, Harold Clifford	A&S	So.	Elko
Fikes, Jack Harris	A&S	Fr.	Reno
Filler, William Charles	A&S	Sp.	Reno
Fiscus, Joyce	A&S	So.	Reno
Fisher, Herman Edward	A&S	So.	Las Vegas
Flangas, Gus Alexander	MM	Fr.	Ely
Flangas, John Alexander	CE	Fr.	Ely
Flangas, William Gus	MM	So.	Ely
Florence, Donna Lou	A&S	Fr.	Sacramento, Calif.
Foley, John Patrick	A&S	Jr.	Reno
Forbes, Carlton Eugene	CE	Fr.	Stockton, Calif.
Ford, James Harry	A&S	Fr.	Elko
Ford, Leland Melford	CE	Fr.	Elko
Fordham, Marjorie Myles		Gr.	Reno
Forman, William Newkom	A&S	Fr.	Reno
Foulkes, Harvey Barrett	EE	Sr.	San Francisco, Calif.
Fox, Elvira Pacheco	A&S	Sp.	Reno
Fox, Kenneth Suttle	EE	So.	Fallon
Fox, Patricia E.	A&S	So.	Janesville, Calif.
Frames, Donald Wayland	A&S	Fr.	Palo Alto, Calif.
Francellini, Patrick F.	A&S	Fr.	Clairton, Penna.
Frank, Jack Donald	MM	So.	Reno
Franklin, Glenn Southard	MM	So.	Reno
Franks, George William	A&S	Fr.	Carson City
Frantz, Ted Claude	A&S	So.	Reno
Free, Raymond	A&S	Jr.	Pioche
Freeman, William	MM	Fr.	Reno
Freemont, Earl Chester	A&S	So.	Reno
Fregger, Joan Shirley	A&S	So.	Reno
Frehner, Mary Syphus	A&S	Fr.	Reno
French, Donald Eugene	A&S	So.	Wendell, Idaho
Frew, Duncan William	A&S	Fr.	Vallejo, Calif.
Fricke, Calvin Alden	Ag.	Jr.	Gardnerville

Name	College	Classification	Home Address
Friel, Helen Brania		Gr.	Reno
Friel, C. William		Gr.	Reno
Friend, Barbara Ann	A&S	Fr.	Pasadena, Calif.
Friend, Marjorie Lynette	A&S	Jr.	Henderson
Fritch, Lewis Homer	EE	So.	San Francisco, Calif.
Frost, Odile Lunsford	A&S	Fr.	Reno
Fryberger, Fay Elaine	A&S	Jr.	Lovelock
Fugit, William Dale	MM	Sr.	Pendleton, Ore.
Fulstone, Eleanor	A&S	So.	Smith
Fulstone, Jeanne	A&S	So.	Smith
Fulstone, Richard Nelson	Ag	Fr.	Smith
Fulton, Florence Irene	A&S	Fr.	Reno
Fulton, Fred J.	MM	So.	Reno
Funck, Robert Vaughn	EE	Fr.	Downey, Calif.
Furchner, Patricia Virginia	A&S	So.	Reno
Furchner, Theodore Allen	A&S	Jr.	Reno
Furin, Jack James	A&S	So.	Uniontown, Penna.
Fuss, Robert Herman	MM	Fr.	Lovelock
Gadda, Wilma Dolores	HE	So.	Reno
Gaffey, Thomas Tracy	A&S	Fr.	Reno
Gaffey, William Tracy, Jr.	Ag	Fr.	Reno
Gallagher, Gedney	A&S	Jr.	Elko
Galletti, Gerald	A&S	So.	Sparks
Galli, Michael	Ag	Sp.	Elko
Gallues, Henry Nick	A&S	Sr.	Reno
Gardella, Raymond Francis	A&S	So.	Reno
Garfinkle, Buddy Alvin	A&S	So.	Reno
Garner, Roma Frances	A&S	Sr.	Tungsten
Garriott, Gene Gillette	MM	Fr.	Golconda
Garrison, Elenor M.	A&S	So.	Sparks
Gartler, Seymour	A&S	Jr.	N. Hollywood, Calif.
Gaston, Sara Christine	A&S	So.	Vallejo, Calif.
Geach, Joseph LeRoy, Jr.	A&S	Fr.	Reno
Gee, Henry	A&S	Fr.	Reno
Geohegan, William Lester	A&S	So.	Altadena, Calif.
Georgeson, Franklin T., Jr.	ME	Fr.	Eureka, Calif.
Geraghty, William M.	CE	Jr.	Ely
Gerken, Rudy Richard	A&S	Fr.	San Jose, Calif.
Getto, George M.	A&S	So.	Sparks
Getto, Mary Carolina	HE	Fr.	Fallon
Geyer, Charles W.	A&S	Sr.	Tonopah
Gialy, Andrew	A&S	So.	Elko
Giannotti, Edwin	A&S	Fr.	Sparks
Gianotti, John Stephen	A&S	Fr.	Scotia, Calif.
Gibson, Charles C.	A&S	So.	Reno
Gibson, Maisie Lucille	A&S	So.	Las Vegas
Gibson, Warren Frederick	A&S	Fr.	San Francisco, Calif.
Gifford, Robert Lee	A&S	Jr.	Las Vegas
Gigas, Gunter George	A&S	Jr.	Reno

Name	College	Classification	Home Address
Gilbert, Colleen Frances	A&S	So.	Hawthorne
Gilbert, Marvin Dick	A&S	Sr.	Reno
Gildner, Will Warner	MM	So.	Las Vegas
Gillies, Una Inez	A&S	Jr.	Sparks
Gillis, William Grant	A&S	Sr.	Reno
Gillispie, Robert William	CE	Jr.	Escalon, Calif.
Gilmore, Earl Penilton	ME	Fr.	Boulder City
Gindroz, Francis Henry, Jr.	EE	Fr.	Lawndale, Calif.
Gini, Eugene Settimo	A&S	Fr.	Reno
Ginocchio, Andrea V.	A&S	So.	Reno
Given, Patricia Arlene	A&S	Fr.	Reno
Glahn, Reginald Austin	MM	Fr.	Reno
Glaser, Lea Jane	A&S	Jr.	Elko
Glass, Robert	A&S	Fr.	Reno
Gloster, Dean Francis	A&S	Fr.	Alturas, Calif.
Goble, Martha Trulove	A&S	So.	Sparks
Godbey, James Milton	EE	Jr.	Boulder City
Godbey, Thomas William	EE	So.	Boulder City
Goff, Charles William	Ag	Jr.	Reno
Goff, Horace Rodlin	A&S	Fr.	Reno
Gomes, Edward Francis	A&S	Fr.	Reno
Gomes, John Milton	MM	Jr.	Oakland, Calif.
Gonda, John Andrew	A&S	Fr.	Grindstone, Penna.
Gonder, Joseph Gilbert	A&S	Fr.	Wellington
Gonfiantini, Nello, Jr.	Ag	Jr.	Reno
Goni, Lorraine Teresa	A&S	Fr.	Reno
Gonyea, Kenneth Allie	A&S	Sp.	Reno
Gonzalez, Alexander	EE	Fr.	Carlin
Goodale, Patsy Ruth	A&S	Fr.	Reno
Goodrich, Kenneth Elliott	CE	So.	Henderson
Gordon, Joe Robert	A&S	Fr.	Hartford, Conn.
Gori, Floyd Edward	A&S	So.	Sparks
Gorman, Richard Harold	EE	So.	Reno
Gorton, George Darwin	A&S	So.	Virginia City
Gough, Jack Richard	EE	Jr.	Salt Lake City, Utah
Gough, Lawrence Patrick	Ag	Fr.	Reno
Gough, Ray Frank	MM	Sr.	Salt Lake City, Utah
Gould, Barbara Josephine	A&S	Sr.	Reno
Gould, Harry Kenton	A&S	Jr.	Reno
Graf, Walter Morris	A&S	Fr.	Elgin, Ill.
Grafton, Virginia	A&S	Fr.	Reno
Gramkow, Edwin Warfield	A&S	Sp.	Gardnerville
Granata, Manuel	A&S	Sp.	Reno
Granstrom, Gustaf Martin	MM	Fr.	Las Vegas
Grant, Elva Augusta	A&S	Sp.	Reno
Gratto, Earl Byron, Jr.	A&S	Fr.	Caliente
Graul, Albert Richard	ME	Fr.	Jersey City, N. J.
Gravelle, June Virginia	A&S	Fr.	Las Vegas
Graves, Donald Miller	MM	Fr.	Seward, Alaska

Name	College	Classification	Home Address
Gravitt, James William, Jr.	A&S	Fr.	Valliant, Okla.
Green, Elmer T.	A&S	Fr.	Philadelphia, Penna.
Green, Phyllis Belle	A&S	Sr.	Sparks
Green, Wallace Glenn	EE	Sr.	Sitka, Alaska
Greenan, Owen Emmons	MM	Fr.	Reno
Greeno, Ted Rudy	EE	Fr.	Carson City
Gregory, Arthur Royce	CE	Sr.	Elko
Gregory, Edna Mae	A&S	Fr.	Elko
Gregory, Ernest	CE	Fr.	Elko
Grevich, Milan James	A&S	Fr.	Mt. Iron, Minn.
Griffen, Gloria	A&S	So.	Reno
Griffin, Marguerite E.		Gr.	Reno
Griffith, George Lee	ME	Jr.	Thornton, Calif.
Grows, Eugene Andrew	CE	Fr.	Boulder City
Gudmundsen, Mark	MM	Fr.	Eureka, Calif.
Guio, Dexter Thayer	A&S	So.	Reno
Gulling, Barbara	A&S	Fr.	Reno
Gunn, Gloria Day		Gr.	Reno
Haas, Carl Vernon	A&S	Fr.	Coaldale
Hackett, Everest Irving	MM	So.	Pioche
Hagar, Thomas Roy	EE	Jr.	Sparks
Hagenbuch, Jean Rea	A&S	Fr.	Rowland
Hager, James Walter	MM	Jr.	Reno
Hagerty, Mary Patricia	A&S	Fr.	Oakland, Calif.
Haggerty, Nancy Patricia	A&S	Fr.	Reno
Hahn, John Louis	A&S	Sp.	Reno
Haines, Eugene Rupert	Ag.	Sp.	Reno
Haines, Homer Pearson	A&S	Fr.	Reno
Hairston, Lawrence Nathaniel	A&S	Fr.	Clairton, Penna.
Hakata, George H.	A&S	Fr.	Elko
Hale, James Clarence, Jr.	A&S	Fr.	Reno
Halfacre, Dorothy Frances	A&S	Fr.	Alhambra, Calif.
Hall, Norman Sidney	CE	So.	Klamath Falls, Ore.
Hamilton, Alice L.	A&S	Fr.	Reno
Hamilton, David Earl	EE	So.	Hagaman, N. Y.
Hamm, Gladys V.	A&S	Sp.	Sparks
Hamm, Norbert Edward	A&S	Fr.	Reno
Hammill, Harold Robert	CE	Fr.	Piedmont, Calif.
Hancock, Ed Leslie	A&S	Fr.	Reno
Hancock, Ronald Helmer	ME	Fr.	Sparks
Hand, Melva Louise	A&S	Jr.	Reno
Hanifan, Joan Patricia	A&S	Fr.	Fallon
Hanley, Mary Cathleen	A&S	Sr.	Reno
Hanlon, Jack Douglas	A&S	Fr.	Reno
Hanna, David Dale	A&S	Jr.	Reno
Hansen, James Dean	Ag.	Fr.	Hiko
Hansen, Margaret Florence	A&S	So.	Henderson
Hansen, Marian Hope	A&S	Sp.	Reno
Hansen, Neal Leavitt	A&S	Sp.	Lovelock

Name	College	Classification	Home Address
Hansen, Stanley	CE	So.	Cedar Falls, Ia.
Hanson, John Carl	A&S	Fr.	Sparks
Hanssen, Doris Agnes	A&S	Sr.	San Rafael, Calif.
Hardison, Artson P.	ME	Jr.	Pasadena, Calif.
Hardison, Julia Bogard	A&S	Sr.	Pasadena, Calif.
Hardy, Buddy Ray	EE	Fr.	Las Vegas
Harker, James Stevens	A&S	So.	Reno
Harlan, Gilbert Roy	CE	Fr.	Reno
Harmon, John R.	A&S	So.	Imlay
Harper, Muray Edwin	A&S	Fr.	Mesquite
Harris, Arthur Albert	A&S	Fr.	Reno
Harris, Beverly Ann	A&S	Fr.	Ruby Valley
Harris, Brunson Mitchell	A&S	Jr.	San Francisco, Calif.
Harris, Donald Arthur	A&S	So.	Los Angeles, Calif.
Harris, Elizabeth Edith	A&S	Fr.	Reno
Harris, Evan LaMar	A&S	So.	China Lake, Calif.
Harris, Gordon Walter	A&S	Jr.	Reno
Harrison, Delores	A&S	Fr.	Fallon
Hart, Beth Cowgill	A&S	Sr.	Reno
Hart, Virgil Lee	A&S	So.	Reno
Harwood, Dewey Shafter, Jr.	MM	So.	Battle Mountain
Haslam, Mary Frances	A&S	So.	Oakdale, Calif.
Hasler, Anne Marie	A&S	Fr.	Coalings, Calif.
Hasler, Milton Herschal, Jr.	CE	Fr.	Laguna Beach, Calif.
Hauk, Robert Wallace	A&S	So.	Pasadena, Calif.
Hawkins, John Charles	A&S	Sp.	Reno
Hawkins, Leslie Earl	A&S	Sr.	Reno
Hawley, Portia	A&S	Fr.	Belmont, Calif.
Hayes, Gordon Lea	A&S	So.	Las Vegas
Hayes, Harold Burton	A&S	Jr.	Ft. Lauderdale, Fla.
Healy, Raymond James	A&S	Fr.	Pasadena, Calif.
Heard, Rosamond Gregor		Gr.	Reno
Heath, Stanley Robert	A&S	Fr.	Menomonee Falls, Wis.
Hecker, Nancy Ann	A&S	So.	Wadsworth
Hedges, Weldon Lee	EE	So.	Reno
Heher, David Michael	A&S	Sp.	Henderson
Helmick, James Mason	ME	Sr.	Reno
Helms, Anne	A&S	Fr.	Boulder City
Helstowski, John Theodore	A&S	Sr.	Irvington, N. J.
Henderson, Alexander D., III	MM	Fr.	Taft, Calif.
Henderson, Eddie Clark	A&S	Fr.	Hanford, Calif.
Henderson, Flora Jean	A&S	Fr.	Avenal, Calif.
Henningsen, Carsten M.	ME	Fr.	Gardnerville
Henningsen, John Carsten	Ag	So.	Gardnerville
Henrichs, Barbara Ann	A&S	Fr.	Yerington
Herberth, Richard Wayne	A&S	Fr.	Sparks
Herbst, William Ehrhardt	A&S	Fr.	Reno
Herz, Wilton Frederick	A&S	Fr.	Reno
Hess, Gary Newton	A&S	Fr.	Reno

Name	College	Classification	Home Address
Hess, Harrie Fox	A&S	So.	Las Vegas
Hess, Louis Charles, Jr.	A&S	Fr.	Las Vegas
Hexam, Arthur David	CE	Fr.	*Ely*
Hickman, Jacqueline J.	A&S	So.	Reno
Hidde, Rodney Allan	EE	Fr.	San Diego, Calif.
Higgins, Charles William	A&S	Fr.	Provo, Utah
Hill, Charles Edward	A&S	So.	Reno
Hill, Donald Phillip	ME	So.	*Reno*
Hill, George Myron	A&S	So.	Reno
Hill, Richard Marcus	CE	Jr.	Napa, Calif.
Hinckley, Ward Wayne	A&S	So.	Reno
Hineline, James Leo	ME	Fr.	Las Vegas
Hinman, Louis John	A&S	Fr.	Las Vegas
Hjelm, William M.	A&S	Fr.	Chicago, Ill.
Hodge, Barbara Anne	A&S	Sr.	Reno
Hodge, Shirley Faydell	A&S	Fr.	Fernley
Hoeper, Ralph Elmer	EE	Fr.	Auburn, Calif.
Hoke, Robert Stephen	MM	So.	Santa Cruz, Calif.
Holden, George Gordon	A&S	Sp.	Reserve, N. M.
Holderman, Orville Lynn	A&S	Sr.	McGill
Holland, Lawrence Dale	A&S	Fr.	Reno
Holland, Richard James	Ag	Jr.	Elgin, Ill.
Hollingsworth, Edgar Ardent	MM	Fr.	Lovelock
Holloway, John Arthur	A&S	Jr.	Reno
Holman, Betty Jean	A&S	Fr.	Reno
Holman, Bobby Dean	Ag	Fr.	*Reno*
Holman, Shanna Louise	A&S	Jr.	Ely
Holmby, Harold Gustav	A&S	Jr.	Reno
Holmes, Howard Forrest	A&S	So.	Oakland, Calif.
Holmes, June Vera	A&S	So.	Bingham Can., Utah
Holt, Ann	A&S	So.	McGill
Hooper, William Henry	EE	Jr.	Reno
Hoover, Norman	CE	Sr.	Reno
Hopkins, Galen Perry	A&S	Sr.	Sonoma, *Calif.*
Hopper, Charles Glen	A&S	Fr.	San Francisco, Calif.
Hopper, Floyd Lawrence	A&S	Jr.	Paramount, Calif.
Hopper, Fredrick Ellsworth	A&S	So.	Paramount, Calif.
Hornbeck, Shirley Louise	A&S	Fr.	Reno
Horning, Barbara Ann	HE	Fr.	Winnemucca
Horsley, George Myron	A&S	Fr.	N. Las Vegas
Horsley, John Raymond	Ag	Fr.	N. Las Vegas
Horton, Robert Carlton	MM	Jr.	Reno
Horton, William Arthur	A&S	So.	Modesto, Calif.
Houghtaling, Earl Jay	EE	Sr.	Paradise, Calif.
Houghton, Alvin Albert	EE	Jr.	Susanville, Calif.
Houghton, Georgia Lee	A&S	So.	Las Vegas
Houghton, Helen Lorraine	A&S	Jr.	Susanville, Calif.
House, Franklin Laffayette	CE	Fr.	Henderson
Houser, Robert Wilson		Gr.	*Toledo*, Ohio
Houston, Edward Ross, Jr.	A&S	Fr.	Santa Monica, Calif.

Name	College	Classification	Home Address
Hovenden, Mary Lou		Gr.	Carson City
Howard, Dayne Holt	A&S	Fr.	Fallon
Howard, James Morris	ME	Fr.	San Francisco, Calif.
Howard, Jean Eleanor	HE	Jr.	Fallon
Howard, Landon H.	EE	So.	Long Beach, Calif.
Howard, Leonard Tomerlin	A&S	Fr.	Fallon
Howard, Sherman John	A&S	So.	Chicago, Ill.
Howd, Donald Fredric	A&S	Fr.	Reno
Howe, Marian Elizabeth	A&S	Fr.	Reno
Hubbard, Charmaine Marie	A&S	Jr.	Virginia City
Hubbard, Leon Ronald	Ag	Fr.	Broadus, Mont.
Huck, Charles Ellis	EE	Fr.	Sebastopol, Calif.
Huddleston, Jack Edmund	A&S	So.	Reno
Hug, Allen LeRoy	A&S	Fr.	McGill
Hulbert, Robert Ernest	Ag	So.	Compton, Calif.
Hull, Jack Eugene	A&S	Jr.	Elko
Hulse, James Warren	A&S	Fr.	Pioche
Humphreys, Clifford Wayne	A&S	Fr.	Sparks
Humphreys, Marilyn	A&S	So.	Sparks
Humphreys, Marshall H. K.	Ag	Fr.	Cincinnati, Ohio
Hunt, Robert Louis	A&S	So.	Winnemucca
Hursh, Ernest Warren	A&S	Sr.	Fallon
Hurst, Clayton Riley	A&S	Jr.	Reno
Hutchings, Bobby Dean	A&S	So.	Lund
Hutton, Carol Anderson		Gr.	Sparks
Hutton, Richard Travis	ME	Sr.	Cucamonga, Calif.
Hyde, Garold Ashel	Ag	So.	Rowland
Iacovelli, John Anthony	A&S	Fr.	New York, N. Y.
Ianni, Pio William	ME	So.	Sparks
Illerich, Daniel G.	ME	Jr.	Sacramento, Calif.
Inch, Patricia	A&S	Sp.	Reno
Inman, Frank E.		Gr.	Reno
Ireland, Willis John	A&S	So.	McGill
Irish, William Cooper	A&S	So.	Sparks
Irwin, Elsie Ruth	A&S	So.	Reno
Ishimoto, William Hiro	A&S	Fr.	Overton
Isola, Mario John	A&S	Sr.	Reno
Ivy, Myrna Joan	A&S	So.	Las Vegas
Jackman, Calvin Roscoe	A&S	Fr.	Ruth
Jackson, Donald Robert	A&S	Fr.	Reno
Jackson, Levin Lewis	EE	Fr.	Indio, Calif.
Jackson, William Atlee	A&S	Fr.	Fernley
Jacobs, Raymond Gilbert	CE	So.	Reno
Jager, Wilbur Bradshaw	A&S	So.	Hollywood, Calif.
James, Marilyn Ruth	A&S	Sr.	Virginia City
Jamieson, Robert Hardy	A&S	So.	Reno
Jarrett, Earl Lavell	A&S	Fr.	Las Vegas
Jeanbart, John	EE	Sp.	Syria
Jee, Stanley	ME	Fr.	Reno

Name	College	Classification	Home Address
Jemison, Rex Alan	A&S	Sr.	Las Vegas
Jenkins, Donald D.	MM	Fr.	Reno
Jensen, Esther Louise	HE	So.	Sparks
Jensen, Frederick Richard	A&S	So.	Gardnerville
Jensen, M. Arlene	A&S	Sp.	Reno
Jensen, Olive Dell	A&S	Jr.	Reno
Jensen, Raymond Steele	A&S	Fr.	Logandale
Jensen, Reilly Campbell	A&S	Fr.	Logandale
Jepsen, Hans Raymond, Jr.	A&S	So.	Minden
Jerauld, Franklin F.	A&S	Fr.	Pasadena, Calif.
Jesionowski, Henry Raymond	A&S	Fr.	Schenectady, N. Y.
Jesse, Edward	A&S	Fr.	Milwaukee, Wis.
Jessop, Glenn Steven	EE	Fr.	McGill
Jewett, Donald Kenneth	CE	So.	Reno
Johns, Stanley Don	A&S	Fr.	Oxnard, Calif.
Johnsen, Melvin Bernard	A&S	Jr.	Fallon
Johnson, Charlotte Boneta	A&S	Fr.	Lovelock
Johnson, Dean Colegrove	MM	Jr.	Brawley, Calif.
Johnson, Edward Arthur	A&S	Fr.	Elko
Johnson, Edward Malmo	A&S	Fr.	Reno
Johnson, Emmett Clifton	CE	Sr.	Los Angeles, Calif.
Johnson, Eppaminodas Geo.	A&S	Jr.	Reno
Johnson, Frank Hilton	A&S	Fr.	Reno
Johnson, George Mifflen	A&S	Fr.	New Kensington, Pa.
Johnson, Joylin Jane	A&S	Sr.	Las Vegas
Johnson, Laurence William	MM	So.	Duncan, Ariz.
Johnson, Noel William	A&S	Jr.	Arcadia, Calif.
Johnson, Norman Joseph	A&S	Fr.	Lynn, Mass.
Johnson, Robert Ralph, Jr.	CE	Fr.	Schurz
Johnson, Virgil Kay	A&S	So.	Reno
Johnson, Walter Burton	MM	Jr.	Kimberly
Johnson, Walter Talmadge, Jr.	ME	Jr.	Berry Creek, Calif.
Johnson, William Howard	A&S	Jr.	Fallon
Johnston, Dalton Melville	MM	So.	Sparks
Johnston, William A.	A&S	Fr.	Carlin
Johnstone, Thelma L.	A&S	So.	Reno
Joice, Fred Alexander	A&S	Jr.	Winnemucca
Jolley, Venus	A&S	Fr.	Boulder City
Jolly, Marjorie Beatrice	A&S	Fr.	Reno
Jolly, Tom Langhorn	A&S	Fr.	Reno
Jones, Beverly Rose	A&S	Fr.	Las Vegas
Jones, Edmund Aaron	A&S	Jr.	Sparks
Jones, June Elizabeth		Gr.	Reno
Jones, Patricia Louise	A&S	Jr.	McGill
Jones, Robert Blanchard	MM	Sr.	Sacramento, Calif.
Jones, Stanley Emrys	A&S	Fr.	Pioche
Jones, Thomas Lacy	EE	Jr.	Reno
Joos, Emily Markham	A&S	Fr.	Salinas, Calif.
Joseph, Louie Saleem	A&S	Sr.	Lynwood, Calif.
Judd, Lowell Willbur	A&S	Fr.	Reno

Name	College	Classification	Home Address
Judkins, Clyde Robert	EE	So.	Carlin
Julian, Joseph	A&S	Jr.	Reno
Justycky, Felix	A&S	Sr.	Albany, N. Y.
Kabeary, William S	A&S	So.	San Francisco, Calif.
Kajans, Fred Andrew	A&S	Fr.	Reno
Kalmanir, Thomas John	A&S	So.	Jerome, Pa.
Kaminaka, Eunice	A&S	So.	Reno
Kaplan, Abe	A&S	Sr.	Reno
Karacabey, Tahsin	A&S	Fr.	Ankara, Turkey
Karrasch, Karl Kenneth	A&S	So.	Reno
Karrasch, Robert Richard	Ag	Fr.	Reno
Katz, Leonard	MM	Sr.	Reno
Kean, Marjory	HE	Jr.	Carson City
Keddie, Helen Marie	A&S	Fr.	San Francisco, Calif.
Keen, Jack Lowell	A&S	Fr.	Reno
Keenan, Jacqueline A.	A&S	Fr.	Reno
Keever, Charles Lee	A&S	Fr.	Carson City
Kegel, Jerome Charles	ME	Sr.	Reno
Kehoe, John Joseph, III	A&S	Sr.	Reno
Keiffer, Robert Stanley	A&S	Sr.	Reno
Keller, Shirley Faye	A&S	Jr.	Redding, Calif.
Kelley, John Douglas	A&S	Fr.	Lovelock
Kendall, Patricia Souter	A&S	Sp.	Reno
Kennedy, Robert Holm	A&S	Jr.	Bishop, Calif.
Kent, Mary Lou	A&S	Fr.	Fallon
Kent, Robert Roe	A&S	Jr.	Fallon
Kentera, John	A&S	Fr.	Encinitas, Calif.
Keown, Glennes Thayer	A&S	Fr.	Reno
Kepler, David Edwin	A&S	So.	Walnut Creek, Calif.
Kernan, Barbara Louise	A&S	Fr.	Reno
Kerns, Jeanne	A&S	Sp.	Reno
Kerr, John Andrew	A&S	Fr.	Reno
Kerstetter, Theodore Harvey	A&S	Fr.	Reno
Kewley, Bruce R.	A&S	Jr.	Lovelock
Kiley, L. David	EE	Jr.	Reno
King, Paul Benson	A&S	Fr.	Reno
King, Walter Ernest	EE	Fr.	Tracy, Calif.
Kinneberg, David Andrew	MM	Jr.	Battle Mountain
Kinner, Richard Ervin	EE	So.	Clearfield, Utah
Kinney, Joseph Francis	ME	Sr.	Winnemucca
Kirksey, Patricia Louise	A&S	Fr.	San Francisco, Calif.
Kiser, Frank Daniel, Jr.	A&S	Fr.	Richmond, Ind.
Kishpaugh, Dale Hampton	ME	Sr.	Clarksburg, Calif.
Kito, Emi	A&S	Fr.	Fallon
Klaich, Smiley	A&S	Fr.	Reno
Klein, Mark	MM	Fr.	Las Vegas
Klimaszewski, Matthew E.	A&S	Jr.	Garfield, N. J.
Klimaszewski, Theodore S.	A&S	So.	Garfield, N. J.
Klise, Robert Orson	A&S	Fr.	Reno

Name	College	Classification	Home Address
Klosterman, Edward	A&S	So.	San Diego, Calif.
Knoll, Joseph James	A&S	So.	Westwood, Calif.
Knowles, Gerald Elgin	MM	Jr.	Willows, Calif.
Knudson, Elmer Robert	A&S	Jr.	Reno
Ko, Alice Joyce	HE	Fr.	Reno
Koch, George Eugene	A&S	Fr.	Las Vegas
Koehler, Frank Edward	Ag	Fr.	Yerington
Koehler, Henry Herman	Ag	Fr.	Yerington
Kofoed, Leslie Vernon	A&S	Fr.	Reno
Kondel, Theodore William	A&S	So.	E. Rutherford, N. J.
Korb, Leighton Richard	A&S	So.	Brazil
Korb, Robert William	A&S	Jr.	Reno
Kornmayer, Freda Jeanne	A&S	Jr.	Reno
Kornmayer, Mardelle Louise	A&S	Fr.	Reno
Kornmayer, William	A&S	Jr.	Reno
Kosakowski, Stanley W.	A&S	So.	Housatonic, Mass.
Kramer, Cyril Hugh	A&S	Fr.	Stockton, Calif.
Krause, Otto Hans	EE	Fr.	Reno
Krieger, Arthur Andrew	MM	Fr.	Oneida, N. Y.
Krueger, Elsie Louise	A&S	Fr.	Berkeley, Calif.
Kuhn, John Robert	A&S	So.	New Rochelle, N. Y.
Kunkel, Clair Milton	MM	Fr.	Goldfield
Kurtis, Thomasine *Tubman*	A&S	Fr.	Reno
Kurtz, Wallace Laverne	A&S	So.	Canby, Ore.
Laird, Nancy Glen	A&S	Fr.	Reno
Lamberson, Ellis Edmund	A&S	Fr.	Hawthorne
Lampe, Carol Diane	A&S	So.	Santa Rosa, Calif.
Lanahan, William Joseph	A&S	Fr.	Reno
Lancaster, Catherine H.	A&S	Fr.	Fallon
Langan, Lucien *Norberto*	MM	Jr.	Flushing, N. Y.
Lange, Ronald Victor	A&S	So.	Gardnerville
Langley, Cordes Porcher	Ag	Fr.	Berkeley, Calif.
La Roche, Charles E.	A&S	Fr.	Reno
Larsen, Raymond Henry	MM	So.	Reno
Larsen, Robert *Theodore*	A&S	So.	Reno
Larson, Adolph Roy	EE	Jr.	Parlier, Calif.
Larson, Robert Harry	CE	So.	Chicago, Ill.
Larson, Valdemar Frick	MM	So.	Whittier, Calif.
Larsson, Alfred John, Jr.	EE	Jr.	Jersey City, N. J.
Lartey, Norine Jeanne	A&S	Fr.	Reno
Lartirigoyen, Mary Jane	A&S	Fr.	Cedarville, Calif.
Laslo, Barbara Ann	A&S	Fr.	Los Angeles, Calif.
Laurie, Shirley Anne	A&S	Fr.	Sparks
Laurie, Wanda Page	HE	Fr.	Reno
Lavetts, Daniel	A&S	Fr.	Los Angeles, Calif.
Layne, Donald Morgan	MM	Fr.	Palo Alto, Cailf.
Leak, Gene Herbert	A&S	Fr.	Auburn, Calif.
Leake, Mary Suzanne	A&S	Fr.	Beverly Hills, Calif.
Leavitt, Myron E., Jr.	A&S	Fr.	Las Vegas

Name	College	Classification	Home Address
Ledbetter, Raymond Edward	EE	Fr.	Lawndale, Calif.
Lee, Edward E., Jr.	A&S	Fr.	Reno
Lee, Eleanor Corle	A&S	Sr.	Reno
Lee, Fred Roland, Jr.	MM	Fr.	San Diego, Calif.
Lee, Georgia Maria	A&S	Jr.	Reno
Lee, James Maurice	CE	Fr.	Henderson
Lee, John Peter	A&S	Jr.	Reno
Lee, Keith L.		Gr.	Reno
Legarza, Ray Dan	A&S	Fr.	Winnemucca
Leggett, John Brice	A&S	So.	Reno
LeGoy, Leo Robert	A&S	Sr.	Bishop, Calif.
Lehman, Beverly Edna	A&S	So.	San Francisco, Calif.
Lemaire, Darrell B.	A&S	So.	Reno
LeMaire, Edward	MM	Fr.	New York, N. Y.
Lemon, Duane L.	A&S	Fr.	Los Angeles, Calif.
Lenzora, Richard Melvin	A&S	So.	Reno
Leon, Frederick M.	A&S	Fr.	San Diego, Calif.
Leonard, Arthur Chelton, Jr.	A&S	Fr.	Reno
Leonard, Lawrence C.	A&S	So.	Reno
Leonard, Lionel George	A&S	Fr.	Boulder City
Letcher, Alfred	CE	Fr.	Victorville, Calif.
Leupold, Ralph Pollard	ME	So.	Norwich, Conn.
Levack, Samuel Solomon	A&S	Sr.	Reno
LeVitt, Ralph Richard	CE	Fr.	Camino, Calif.
Lewis, Julius Johnson, Jr.	A&S	Sp.	Media, Pa.
Lewis, Robert Long, Jr.	A&S	Fr.	Las Vegas
Lewis, Wayne Earl	A&S	So.	Logandale
Libke, Joseph Burr	A&S	So.	Sullivan, Ind.
Lightfoot, Donald Lyman	EE	So.	Sparks
Lightfoot, Myrtle McMurray	EE	Fr.	Sparks
Lindeman, Dwight Jerome	A&S	Fr.	Oak Park, Ill.
Lindesmith, George Gerald	A&S	Jr.	Henderson
Lindesmith, Orlando Roger	EE	Jr.	Henderson
Linfesty, Lyman Daniel	A&S	Sr.	Bakersfield, Calif.
Lingenfelter, Cornelius	Ag	Fr.	Gerlach
Linka, Robert Harrison	Ag	So.	Austin
Linn, Samuel Jennings, Jr.	CE	Fr.	Redding, Calif.
Linsea, Dorris Lee	A&S	Fr.	Ely
Liston, Douglas Ivins	A&S	Fr.	Las Vegas
Little, Robert Elliott	A&S	Jr.	Winnemucca
Littlejohns, Dale E.	A&S	So.	Oakland, Calif.
Littler, Otto J., Jr.	CE	Fr.	Boulder City
Livierato, Eli	A&S	Sr.	Reno
Lockart, Charles Loren	MM	Sr.	Dunsmuir, Calif.
Lokke, Gerald Fred	A&S	Fr.	Sparks
Lokke, Theodore Henry	A&S	So.	Sparks
Long, John Robert	A&S	Jr.	Reno
Long, Robert A.		Gr.	Carson City
Long, Walter E.	ME	So.	Las Vegas
Lothrop, Dolores Lee	A&S	So.	Reno

Name	College	Classification	Home Address
Louis, George Arya	A&S	Jr.	New York, N. Y.
Loveall, Charles Gordon	ME	Fr.	Reno
Lowden, John Leroy	A&S	Sr.	Walla Walla, Wash.
Lowry, Gus William	A&S	Jr.	McComb, Miss.
Lowry, Kenneth Boardman	A&S	Fr.	Piedmont, Calif.
Lubin, Leonard L.	A&S	Fr.	Jamaica, N. Y.
Luce, William Elwood	A&S	Fr.	Reno
Lund, Clarence Alfred	A&S	So.	Virginia City
Lund, Richard	A&S	So.	Reno
Lundergreen, Shirley Lois	A&S	So.	Gardnerville
Lundy, Joan	HE	Fr.	Reno
Lusebrink, Ted Robert	A&S	Fr.	Concord, Calif.
Lusebrink, William Nels	A&S	Fr.	Concord, Calif.
Lusich, George Jerry, Jr.	EE	So.	Sparks
Lusich, Nick Leon	A&S	Fr.	Reno
Lyman, Donald Joseph	A&S	Sr.	Chicago, Ill.
Lynch, James Francis, Jr.	CE	So.	Elko
Lynn, Cal Franklin	A&S	Fr.	Elko
Lyons, Geraldine E.	A&S	Fr.	Reno
Lyons, Mark Sherwood	MM	Fr.	Los Angeles, Calif.
Macaulay, Thomas Roderic	EE	Jr.	Reno
MacDonald, Marilyn Louise	A&S	So.	Pomona, Calif.
MacDougall, Gerry Ann	A&S	Fr.	Reno
Mack, Robert Charles	A&S	Jr.	Reno
Mackenzie, Walter Edward	Ag	Fr.	San Mateo, Calif.
Mackey, Donna Lenore	A&S	So.	Babbitt
MacPhee, Dorris Carolyn	A&S	Fr.	Reno
Madsen, Constance Luella	A&S	Jr.	Fallon
Madsen, Robert Kelly	MM	Sr.	San Rafael, Calif.
Maestretti, Don William	A&S	So.	Battle Mountain
Magee, George Earle, Jr.	ME	Fr.	Las Vegas
Magee, George Franklin	A&S	Jr.	Reno
Magee, Maureen Elizabeth	A&S	Fr.	Reno
Magleby, Mavis	A&S	Fr.	Las Vegas
Mahan, Martin William	MM	Fr.	Reno
Malcolm, Constance Louise	A&S	Fr.	Henderson
Maloney, Doris	A&S	Sr.	Reno
Manca, Marilyn Rose	A&S	Fr.	Elko
Manley, Myron B.	A&S	Fr.	Sparks
Mansfield, Helen Louise	A&S	Jr.	Reno
Manson, Gerald	A&S	Fr.	Reno
Mantle, Evelyn		Gr.	Sparks
Marcella, Anthony James	A&S	Fr.	Mt. Iron, Minn.
Marchal, Donald Louis	MM	Fr.	Modesto, Calif.
Maretoli, Cecilia Ida	A&S	Fr.	Elko
Marfisi, Frank Edward	A&S	Fr.	Winnemucca
Marimpietri, John Mario	A&S	Fr.	Vandergrift, Pa.
Marker, Ella Virginia	A&S	Sp.	Reno
Marker, Geneva May	A&S	Jr.	Reno

Name	College	Classification	Home Address
Marker, Robert Herman	A&S	Fr.	Reno
Marks, Jerome Francis	A&S	So.	Reno
Marks, Raymond Edward	A&S	Sp.	Reno
Marriage, Charles Burgess	A&S	So.	Carson City
Marshall, Holman T., Jr.	MM	Fr.	McGill
Marshall, Jacquelyn H.	A&S	Fr.	Reno
Martin, Baxter Franklin	A&S	So.	Glen Ellyn, Ill.
Martin, George Edward	A&S	So.	Newark, N. J.
Martin, James Emmett	A&S	Fr.	Eureka
Martin, Robert Calvin	CE	So.	Reno
Martinelli, Ernest	A&S	Jr.	Sparks
Martini, Elio Tom	A&S	Fr.	Dayton
Marvel, John Wyland	A&S	So.	Battle Mountain
Masini, Lawrence Carl	A&S	Fr.	Reno
Mason, Jeanne Chartier		Gr.	Sparks
Mason, Ruth Fowler	A&S	Sp.	Reno
Mason, Stella Mae	A&S	Fr.	Las Vegas
Mastroianni, Doris		Gr.	Reno
Mathews, Frank Douglas	A&S	So.	Boulder City
Mathis, David Henry	A&S	Fr.	Kimberly
Mathis, Joe Robinson	MM	Sp.	Shafter, Calif.
Matteucci, Albert	A&S	Fr.	Las Vegas
Matteucci, Malcom Gene	A&S	So.	Las Vegas
Maynard, Russell James	A&S	So.	Reno
Mayo, Charles S.	EE	Jr.	Reno
Mazza, Marcella Nataline	A&S	Fr.	Reno
McBride, Gerald John	A&S	Jr.	Elko
McCabe, Joan Irene	HE	So.	Los Angeles
McCabe, William L., Jr.	A&S	So.	Reno
McCartney, Lyle Oakley	Ag	Jr.	Elko
McCloskey, Conrad W.	EE	Jr.	Reno
McCloskey, Stephen W.	A&S	Fr.	Lovelock
McClure Blanche M.	A&S	Fr.	Battle Mountain
McClure, Harriet Marie	A&S	Fr.	Reno
McClure, Robert James	CE	Fr.	Winnemucca
McConaughy, Alfred		Gr.	Sparks
McCormack, Robert M.	ME	Jr.	San Anselmo, Calif.
McCrae, Robert George	MM	Fr.	Frederick, Colo.
McCrary, Arley Terryl	A&S	Fr.	Reno
McCray, Berlien L.	A&S	Fr.	Reno
McCray, Elinore Mae	A&S	Jr.	Reno
McCulloch, John Shurtliff	EE	So.	Elko
McDermont, Barbara A.	A&S	Fr.	Markleeville, Calif.
McDonald, Edith G.	A&S	Fr.	Lovelock
McDonough, Shirley Ann	A&S	Jr.	Reno
McEachern, John Russell	EE	Fr.	Lovelock
McElrath, Thomas William	ME	Fr.	Wells
McElwain, Joyce E.	A&S	So.	Reno
McEwen, Mary Elizabeth	A&S	Fr.	Reno
McFadden, Albert Joseph	EE	So.	Las Vegas

Name	College	Classification	Home Address
McFadden, Frank Joseph	A&S	Fr.	Las Vegas
McFarland, Billy Joe	A&S	Jr.	Reno
McGill, Marjorie	A&S	Fr.	San Francisco, Calif.
McGoodwin, John William	A&S	So.	Henderson
McGowan, Roger James	A&S	Jr.	Hawthorne
McGuire, Raymond Adam	A&S	Sr.	Reno
McIntyre, Gene D.		Gr.	Reno
McIntyre, Louise C.	A&S	Sp.	Sparks
McIntyre, Thomas G., Jr.	CE	Fr.	Sebastopol, Calif.
McKenna, Charles P., Jr.	ME	So.	Reno
McKenna, Eugene Morgan	A&S	So.	Sparks
McKenzie, Lester A.	Ag	Jr.	Paradise Valley
McKissick, Howard F., Jr.	A&S	So.	Reno
McKnight, Margery	A&S	So.	Reno
McLaughlin, Leonard James	A&S	So.	Providence, R. I.
McLeod, Dale L.		Gr.	Reno
McNabney, James	A&S	Sr.	Reno
McNeil, Ethel Welsh	A&S	So.	Sparks
McNutt, Leslie Edward	A&S	Fr.	Ely
McNutt, Wesley Reed	A&S	Fr.	Ely
McTavish, Jane Elizabeth	A&S	Sr.	Burlingame, Calif.
McVey, Phillip Bernard	Ag	Sp.	Reno
Meacham, Warren Edgar	CE	Jr.	Bishop, Calif.
Means, Jack Abbott	CE	So.	Reno
Means, Lawrence George	CE	Fr.	Reno
Mecham, Ferris J.	CE	So.	Virginia City
Mehdy, Martin		Gr.	San Francisco, Calif.
Meiser, Vernon Melville	CE	Jr.	Reno
Melarkey, Daniel Campbell	Ag	So.	Honolulu, T. H.
Melendy, Patricia	HE	Fr.	Reno
Mellon, Benita	A&S	Fr.	Truckee, Calif.
Melner, Joan Harriet	A&S	Fr.	Reno
Melner, Sinclair Lewis	A&S	Sr.	Reno
Menard, Alan George	ME	Fr.	Reno
Mendive, Louis Steve	A&S	So.	Battle Mountain
Menicucci, Joseph Michael	A&S	So.	Reno
Menicucci, Marino	A&S	Sp.	Sparks
Menke, Eugene M.	EE	Jr.	Reno
Menu, Glen Eugene	EE	So.	Reno
Meredith, Thomas Keith	CE	Fr.	Reno
Merwin, Robert Billard	A&S	Fr.	Brooklyn, N. Y.
Merwin, Shirley June	A&S	Jr.	Clarksburg, Calif.
Metzger, Joan Laurene	A&S	Fr.	Reno
Metzger, William T.	A&S	Fr.	Reno
Metzker, Donald James	A&S	Sr.	Reno
Meyer, Billy Ike	ME	Fr.	Carson City
Meyers, Harold Alwas	ME	Fr.	Sacramento, Calif.
Michael, John Harold	A&S	Sr.	Sacramento, Calif.
Michaelsen, John Robert	MM	Fr.	Ruth
Micheo, Mary Grace	A&S	So.	Gardnerville

Name	College	Classification	Home Address
Michienzi, James Anthony	A&S	Fr.	St. Paul, Minn.
Mieding, John Fred	MM	Fr.	Los Angeles, Calif.
Mikulich, Andrew John	A&S	Fr.	Las Vegas
Milburn, John Francis	A&S	So.	Philadelphia, Pa.
Miles, Charles Henry, Jr.	A&S	Jr.	Las Vegas
Miles, Jackie Alberta	A&S	Fr.	Las Vegas
Miles, Richard Lloyd	A&S	So.	Reno
Millar, Max Otis	Ag	Fr.	Minden
Miller, Clarence Lowell	A&S	Fr.	Henderson
Miller, Elizabeth Helen	A&S	Fr.	Reno
Miller, Elizabeth Louise	A&S	Fr.	Las Vegas
Miller, Ethel Lillian	A&S	So.	Reno
Miller, Marnie Eldina	A&S	So.	Winnemucca
Miller, Richard Grant	A&S	So.	Reno
Miller, Robert William	EE	Jr.	Lovelock
Miller, Sarah Ellen		Gr.	Reno
Miller, Stanley Kent	A&S	Fr.	Winnemucca
Miller, Wendell Artell	CE	Jr.	Reno
Miller, Winneva Fern	A&S	So.	Winnemucca
Millinger, Jack Laverne	EE	So.	Sparks
Mills, Russell Gerow	CE	Fr.	Reno
Minola, Norman Ashley	ME	Fr.	Carlin
Minor, Beverly Jean	A&S	Sr.	Reno
Mirabelli, Michael A.	A&S	So.	Las Vegas
Miramon, Alfred M., Jr.	CE	So.	Reno
Mishaud, Edna Legg	A&S	Sp.	Reno
Miskulin, Nicholas	A&S	Fr.	Kimberly
Mitchell, Roy S.	A&S	Fr.	Reno
Moell, Mildred Eudora	A&S	Fr.	Elko
Molignoni, Bonny Louise	A&S	Sr.	Reno
Molk, Ashley Jay	ME	Jr.	San Dimas, Calif.
Montero, Helen	A&S	Jr.	Winnemucca
Moore, Bebe Ann	A&S	So.	Gabbs
Moore, Donald Harry	Ag	Fr.	Bridgeport, Calif.
Moore, Donna Mae	HE	Fr.	Indianapolis, Ind.
Moore, Edith Maxine	A&S	Jr.	Winnemucca
Moore, Frances Jean	A&S	Fr.	Boulder City
Moore, Joseph Eli, Jr.	A&S	Sr.	Winnemucca
Moore, Paul L.	ME	Fr.	Reno
Moore, Richard Vernon	A&S	Jr.	Fargo, N. D.
Moore, Robert Herbert	A&S	Fr.	Santa Cruz, Calif.
Moore, Robert James	A&S	Fr.	Winnemucca
Moore, Stanley Alff	A&S	Fr.	Stockton, Calif.
Moore, Virginia King	A&S	Sp.	Reno
Moran, Robert Ernst	Ag	Fr.	Malibu, Calif.
Morehead, Henry	ME	Sr.	Reno
Morey, Beverly Marion	HE	So.	Long Beach, Calif.
Morgali, Ralph Darius	CE	Fr.	Reno
Morita, Shinji Joseph	A&S	Jr.	Las Vegas
Morrice, Edward, Jr.	MM	Jr.	San Francisco, Calif.

Name	College	Classification	Home Address
Morris, Donald Howard	A&S	Sr.	Golden, Colo.
Morris, Joel Maurice	MM	Sr.	Van Nuys, Calif.
Morris, William Wesley	A&S	So.	Las Vegas
Morrison, Darrol Hugh	A&S	Jr.	Eureka
Morrison, James Scott	A&S	Fr.	Piedmont, Calif.
Morrison, Judy	HE	Fr.	Piedmont, Calif.
Morrison, Robert Andrew	A&S	Sr.	Cheyenne, Wyo.
Morrison, Thomas Cecil	CE	Fr.	Modesto, Calif.
Morrow, Leslie Edward	A&S	Sr.	Modesto, Calif.
Mortara, Rita Rena	A&S	Sr.	Reno
Morton, Robert William	CE	So.	Reno
Moss, Marvin Lynne	A&S	Fr.	Sparks
Moulton, Mary	A&S	Sp.	Reno
Mowbray, John Thomas	MM	Fr.	Reno
Mowbray, Wm. Rutherford	MM	Fr.	Reno
Moyer, Harlan Ernest	CE	So.	Alturas, Calif.
Mulert, Howard Max	A&S	Fr.	Pittsburgh, Pa.
Muller, Leopold Frederic	MM	Jr.	Carson City
Munn, Bebe Aimee	A&S	So.	Reno
Munoz, Rita Regina	A&S	Fr.	Reno
Munter, Dean Elwin	CE	Fr.	Portland
Murdough, Charles Edw., Jr.	A&S	Jr.	Reno
Murphy, Frederick Alexander	MM	Fr.	San Francisco, Calif.
Murray, Mary Ellen	A&S	Fr.	Lena, Ill.
Murusky, Eugene Laurence	A&S	Fr.	Madison, Conn.
Mustard, Donald L.	A&S	Jr.	Fallon
Mygatt, Peter	A&S	Jr.	Taos, N. M.
Myles, Vale Patrick	EE	Fr.	Austin
Nagel, William Leroy	CE	Fr.	Carson City
Nagle, Bryant Frutchey	A&S	Fr.	Santa Monica, Calif.
Nall, Darrell Stephen	MM	So.	Stockton, Calif.
Nannini, Florindo		Gr.	Reno
Nannini, Louis George	ME	So.	Golconda
Nannini, Richard Ideo	A&S	Fr.	Reno
Nash, Jean	A&S	Jr.	Las Vegas
Naveran, Angela Gloria	A&S	Jr.	Battle Mountain
Neal, Marilyn June	A&S	So.	Winnemucca
Neff, Frank	MM	Fr.	Vallejo, Calif.
Nellis, Harold Eugene	MM	Jr.	Boulder City
Nelson, Edward Maxwell	A&S	Fr.	Reno
Nelson, Fred Albert	A&S	Fr.	Babbitt
Nelson, Robert Merwin	A&S	Sr.	Kirkland, Wash.
Neuenswander, Alfred Chas.	A&S	Fr.	Reno
Nevin, Michael Robert	A&S	Fr.	Virginia City
Newell, George Edward	ME	Sr.	Yerington
Newell, Herbert John	CE	Fr.	Yerington
Newman, Harold Charles	MM	Fr.	Ione
Nichols, Claude W., Jr.	A&S	Fr.	Reno
Nicolay, Larned Jay	A&S	Fr.	Pomona, Calif.

Name	College	Classification	Home Address
Nielsen, Joyce Winifred	Gr.		Reno
Nielsen, Marion Jeanne	A&S	So.	Reno
Nocciolo, Albert Carl	A&S	Fr.	Belleville, N. J.
Nodine, Lola Lee	A&S	Fr.	Dayville, Ore.
Nojima, Tetsuo Roy	MM	Jr.	Elko
Nolan, Chris	A&S	Fr.	Caliente
Nooney, Grove Crawford	A&S	So.	Reno
Nord, Earnest Wilhelm	ME	So.	Minneapolis, Minn.
Norman, Ronald Victor	A&S	Fr.	Reno
Norris, Claire Olivia	HE	Fr.	Redwood City, Calif.
Norton, Robert Henry	MM	Fr.	Carson City
Novak, Warren Julius	A&S	Fr.	Provo, Utah
Novoa, Fidel A.	Ag.	Sp.	El Salvador
Nussbaum, Serge Jean	EE	Sp.	Pau, France
Nyberg, Marlene Janet	A&S	Fr.	Reno
Oberholzer, Jack L.	EE	Jr.	Honolulu, T. H.
O'Brien, Leo Martin, Jr.	A&S	So.	Arlington, Va.
O'Hagan, Donald Henry	CE	Sr.	Portland, Ore.
Oki, Tom	Ag.	Fr.	East Ely
Olguin, Daniel John	A&S	Jr.	Sparks
Olinghouse, Kenneth R.	ME	Jr.	Pioche
Oliver, Anne May	A&S	Fr.	Carson City
Olivieri, Arthur Melvin	A&S	Fr.	Reno
Olmsted, Roger R.	A&S	Jr.	Pacific Grove, Calif.
Olsen, Norman Otis	A&S	Fr.	Reno
Olson, Howard Spencer	EE	Fr.	Santa Rosa, Calif.
Olson, Richard Dillaye	A&S	Fr.	Los Angeles, Calif.
Omoto, Clarence Yoshito	A&S	Fr.	Kealakekua, T. H.
Orlich, Daniel	A&S	Sr.	Chisholm, Minn.
Ornas, George Joseph	A&S	So.	San Francisco, Calif.
Orr, John Alexander	A&S	So.	Pioche
Orrock, Thomas H.	EE	Sr.	Pioche
Osborne, Lloyd B.	A&S	Fr.	Reno
Osborne, Wayne	A&S	Sp.	Reno
Osborne, Wayne Lyle	A&S	Fr.	Las Vegas
Osborne, William Eugene	A&S	Fr.	Long Beach, Calif.
Osgood, Samuel	A&S	Jr.	Redondo Beach, Cal.
O'Shaughnessy, Richard E.	A&S	Fr.	Reno
Osmun, James William, Jr.	EE	Fr.	Imlay
Ott, Emil J., III	A&S	Jr.	Sacramento, Calif.
Ousley, Liermann	EE	Fr.	Las Vegas
Owen, Orville	A&S	Fr.	Reno
Oxborrow, Elmo Dean	A&S	Fr.	Ely
Oyarbide, Rose	A&S	So.	Battle Mountain
Pacini, Silvano Joseph	EE	Fr.	Carlin
Packard, William Donald	MM	So.	Sacramento, Calif.
Palmer, Robert Arthur	A&S	Sr.	Rochester, N. Y.
Panelli, Giulio Carlo	ME	Jr.	Verdi
Panicari, Carlo Frank	A&S	Fr.	Reno

Name	College	Classification	Home Address
Panzer, Doris I.	A&S	Fr.	Vallejo, Calif.
Panzer, Richard Earl		Gr.	Richmond, Calif.
Papaeliou, Vasileos Elias	A&S	So.	Reno
Pardi, Martha Jeanne	A&S	Fr.	Dixon, Calif.
Parigini, Harry Theodore	A&S	Fr.	Sparks
Parke, Jack Evan	ME	Fr.	Reno
Parker, Barbara June	HE	So.	Carson City
Parker, James Oakley	A&S	So.	Hawthorne
Parker, Laurel Lee	A&S	So.	Reno
Parks, Lucile Snider		Gr.	Reno
Parrish, Ann	HE	Fr.	Carson City
Parrott, James Howard	A&S	Fr.	Las Vegas
Paterson, Robert Andrew	A&S	Sr.	Reno
Patrick, Robert Lloyd	ME	So.	Reno
Patti, John	A&S	Sr.	Girard, Ohio
Patton, Virgil	A&S	Fr.	Sparks
Pavlakis, Lazo Antonios	A&S	Fr.	Ely
Payne, Philip Wallace	A&S	Sr.	Las Vegas
Pearson, Wayne Orlando	A&S	Fr.	East Ely
Pedersen, Alton Andrew	MM	Fr.	Reno
Pederson, Roger John	EE	Fr.	Grants Pass, Ore.
Peirson, Doris Mae	A&S	Fr.	China Lake, Calif.
Peirson, James Marlow	A&S	So.	China Lake, Calif.
Pelizzari, John Row	A&S	Sr.	Reno
Pence, George Emel, Jr.	MM	So.	Susanville, Calif.
Pendleton, George Monte	A&S	Fr.	Reno
Pennington, Knute Donovan	A&S	Fr.	Ruth
Penrose, Marie Genevieve	A&S	Fr.	Reno
Perazzo, Frederick J.	A&S	Fr.	Reno
Perdue, Mary Ellen	A&S	So.	Reno
Perry, Mona LaNore	A&S	Fr.	Las Vegas
Pershall, Dawn Fae	A&S	Fr.	Las Vegas
Peters, Ray Cameron, Jr.	A&S	Fr.	Sparks
Peters, Stanlibeth	A&S	Jr.	Albuquerque, N. M.
Petersen, John Charles	CE	Fr.	Mason
Peterson, Carl Roberts	A&S	Fr.	Reno
Peterson, Don Lee	ME	Fr.	Reno
Peterson, Dwight Warren	A&S	So.	Babbitt
Petricciani, John Carl		Gr.	Reno
Petrini, Robert Egisto	A&S	Fr.	Sparks
Petroni, Donald Victor	CE	Fr.	Reno
Pettis, Alice Lillian	A&S	So.	Reno
Pettis, Ethel Annie		Gr.	Reno
Peyron, Maurice Paul	A&S	Jr.	Pocatello, Idaho
Phelps, Hardy Lee	A&S	Fr.	Las Vegas
Phelps, Ray Eugene	A&S	Fr.	Blue Diamond
Phillips, William David	ME	Fr.	Ione
Picchi, Anna Marie	A&S	So.	Sparks
Piccinini, Marian Catherine	A&S	So.	Carlin
Piccinini, Richard B.	A&S	So.	Carlin

Name	College	Classification	Home Address
Pickens, Carolyn Jean	A&S	So.	Reno
Pico, Girard Parker		Gr.	Reno
Pico, Louis Ceyetano	EE	Jr.	Las Vegas
Pico, Robert Joseph	A&S	Fr.	Las Vegas
Picollo, Marvin Eugene	A&S	Jr.	McGill
Pierce, Stanley William	A&S	So.	Elko
Pieretti, Tosca Marie	A&S	Fr.	Carlin
Pilkington, Dorothy		Gr.	Reno
Pillsbury, William Francis	CE	Fr.	Vallejo, Calif.
Pinjuv, Evelina Ana	A&S	Fr.	Delano, Calif.
Pinjuv, George Ivan	A&S	Sp.	Las Vegas
Pintar, Matthew Ralpheal	A&S	Fr.	Reno
Pioch, Patt	A&S	Fr.	Oklahoma City, Okla.
Plaskett, Norma Joanne	A&S	Fr.	Sacramento, Calif.
Plosila, Ella Maria	A&S	Fr.	Tonopah
Plummer, Walter William	A&S	Jr.	Carson City
Poe, Beverly Joan	A&S	Fr.	Sparks
Pomerleau, Earl Joseph	A&S	Jr.	Las Vegas
Pompei, Mario Henry, Jr.	A&S	Fr.	San Francisco, Calif.
Pontecorvo, Anthony	ME	Jr.	New York, N. Y.
Pope, Girdwood Craig	MM	Jr.	Alameda, Calif.
Popp, Louis Joseph	A&S	Jr.	Steubenville, Ohio
Porter, Don Frank	A&S	Fr.	Reno
Porter, Louis Keith	EE	So.	Las Vegas
Porter, Robert Day, Jr.	A&S	Fr.	Reno
Porter, Tad	A&S	So.	Las Vegas
Post, Lois	A&S	Sr.	Reno
Potashnick, Mary Uline	A&S	Fr.	Reno
Potter, Peter	MM	Fr.	Beverly Hills, Calif.
Potter, Robert Joseph	A&S	Fr.	Reno
Poulakidas, Nick	A&S	So.	Kimberly
Powell, Elaine Ruth	A&S	Fr.	Las Vegas
Powell, Joan Ann	A&S	So.	Las Vegas
Powell, June Ann	HE	So.	Las Vegas
Powell, Roger Lee	MM	Fr.	Columbus, Ohio
Powell, Shirley Ann	A&S	Fr.	Henderson
Powers, Martin Fredrick	A&S	Fr.	Yerington
Poznanovich, Donald Edwin	CE	Fr.	Santa Rosa, Calif.
Pratt, Gordon Neil	A&S	Fr.	Carson City
Preston, Walter Cecil	MM	Fr.	French Gulch, Calif.
Price, Jeanne Ellen	A&S	Fr.	Las Vegas
Price, Michael Akim	MM	Fr.	Los Angeles, Calif.
Priest, Bette Kimball	A&S	Fr.	Napa, Calif.
Pringle, John Alex	A&S	Fr.	Reno
Pringle, Robert Sheldon	ME	So.	Reno
Proctor, Jean Marie	A&S	Sr.	Kimberly
Prioetti, George Dale	A&S	Fr.	Reno
Prugh, Walter Hamilton	A&S	So.	San Francisco, Calif.
Pryor, Jean Audry	A&S	Fr.	Elko
Puddington, Georgianna	A&S	So.	Reno

Name	College	Classification	Home Address
Pulsipher, Charles Kay	A&S	So.	Logandale
Pursel, John Howard	Ag	Fr.	Yerington
Pursel, Thomas Lynn	A&S	Fr.	Las Vegas
Purtill, Frederic Lee	A&S	Fr.	Watsonville, Calif.
Puryear, James Edwin	A&S	Fr.	Ruth
Putnam, Vernon Guy	ME	Fr.	Reno
Pyper, Stanley Dean	A&S	So.	Wells
Pyzel, Ewald Daniel	A&S	Fr.	Piedmont, Calif.
Quackenbush, Maynard D.	EE	So.	Chamberlain, S. D.
Quilici, Basil Angelo	A&S	Fr.	Yerington
Quilici, Theodore	A&S	Fr.	Smith
Quinn, George William	A&S	Fr.	San Francisco, Calif.
Quintana, John Jesus	MM	Fr.	Grand Junction, Colo.
Rabenstine, Wallace J.	CE	Fr.	Mt. Holly, N. J.
Rader, Jack L.	ME	Fr.	Babbitt
Rafael, William Joseph	CE	Fr.	Las Vegas
Raker, Donnel Ray	Ag	Fr.	Henderson
Ramelli, Donald Edwin	Ag	Sr.	Reno
Ramelli, Theodore Ward	Ag	Jr.	Vinton
Ramsey, Robert Thorpe	CE	Fr.	Reno
Rankin, Robert John	MM	Jr.	New York, N. Y.
Rassuchine, Alex V.	A&S	Fr.	Reno
Rauhut, Michael	A&S	Fr.	Reno
Ravera, Jeannette Amelia	A&S	Fr.	Reno
Ray, Donald Bradford	A&S	Jr.	Caliente
Ray, James Chandler	CE	So.	San Francisco, Calif.
Ray, Leslie Lund	A&S	Sr.	Sullivan, Ind.
Ray, Marilyn Jane	A&S	Jr.	Caliente
Ray, Robert Cadwell	ME	Fr.	San Francisco, Calif.
Read, Robert Keith	A&S	So.	Reno
Reading, George Edward	A&S	So.	Carson City
Reading, Jac Beck	A&S	Fr.	Reno
Reed, Edward C., Jr.	A&S	Sr.	Reno
Rector, Juanita Jane	CE	Fr.	Virginia City
Reed, George Theodore	Ag	Fr.	Reno
Reeves, Lois Frances	A&S	Sr.	Newcastle, Calif.
Reeves, Robert Grier	MM	Sr.	Placerville, Calif.
Reid, Donald Aldro	MM	Jr.	Searchlight
Reid, Mary Louise	A&S	Fr.	Sloat, Calif.
Reid, Richard Alma	Ag	Fr.	Lund
Reifschneider, Mrs. Olga	A&S	Sr.	Reno
Reimer, Paul Oscar	CE	Fr.	Alturas, Calif.
Reinhardt, Thomas Adolph	ME	Jr.	Jasper, Minn.
Reinken, William A.	MM	Jr.	Reno
Reuter, Gretchen Louise	A&S	Fr.	Reno
Revene, Joseph George	A&S	Sp.	New York, N. Y.
Rexin, Ferdinand George	EE	Sp.	New York, N. Y.
Rhodehamel, Jean Charlotte	A&S	So.	Boulder City
Rice, Elizabeth Anna	A&S	Jr.	Reno

Name	College	Classification	Home Address
Rice, Kenneth Taylor, Jr.	ME	Jr.	Reno
Rice, Remo Hamblin	CE	Fr.	Reno
Rice, Robert Marshall	A&S	Sr.	Healdton, Okla.
Rich, Joann Priscilla	A&S	Fr.	Sacramento, Calif.
Rich, Myrtle Sorensen	A&S	Sp.	Gardnerville
Richards, Eric Leonard	A&S	Jr.	Reno
Richards, Shirley Chapman	A&S	So.	Huntington Park, Cal.
Richards, Walter E.	A&S	Fr.	Las Vegas
Richards, William E.	MM	Fr.	Las Vegas
Richardson, Albert Edward	A&S	Jr.	Reno
Rickenback, Alta Jean	A&S	Fr.	Elko
Riddle, Dale J.	A&S	Fr.	Lovelock
Riddle, Robert George	A&S	Fr.	Sacramento, Calif.
Rigby, William George	CE	Fr.	Canoe, Ala.
Riggle, Carl Clayton	EE	Jr.	Sparks
Riggs, Homer Lynn	A&S	Sr.	Reno
Rippe, Ben Kroll	CE	So.	San Anselmo, Calif.
Riva, John Fioretto	A&S	Fr.	Las Vegas
Roberts, Jerry Milton	EE	Jr.	Reno
Robinson, Carl Maurice	A&S	Sr.	Visalia, Calif.
Robinson, Hampden Sidney	A&S	So.	Reno
Robinson, Lewis Howe	ME	Fr.	Carson City
Robison, John H.	A&S	Fr.	Las Vegas
Rodriguez, Martin R.	A&S	Fr.	Kimberly
Rogers, Allen S.	MM	Jr.	Berkeley, Calif.
Rogers, Will	A&S	So.	Reno
Rollins, William Arthur	A&S	So.	Reno
Rose, Harvey Noel	A&S	Jr.	Reno
Ross, Bertram William	A&S	Fr.	Carson City
Ross, John Thomas	A&S	So.	Carson City
Rotholtz, Ben Charles	A&S	Fr.	Reno
Routledge, Marilyn Marie	A&S	Fr.	Dillon, Mont.
Rovetti, Harry Donald	A&S	Fr.	Reno
Rovetti, Mary Joanne	A&S	Fr.	Reno
Rowe, Mary Schidler	A&S	So.	Reno
Rowley, Richard Belknap	A&S	So.	Reno
Royle, Patricia Margaret	A&S	So.	Reno
Ruebsam, Edith		Gr.	Reno
Rule, Jeanne	A&S	So.	Reno
Rupp, Betty Jo	A&S	So.	Bishop, Calif.
Russell, Barbara Lee	A&S	Fr.	Boulder City
Russell, Pauline Claire	A&S	So.	Boulder City
Russler, Donald Fredrick	MM	So.	Elk Grove, Calif.
Ryan, Bill Chatten	A&S	Jr.	Las Vegas
Ryerse, Charles Coverton	A&S	Fr.	Las Vegas
Sadler, George Powers	EE	Fr.	Reno
Sadler, Patricia Gloria	A&S	Sr.	Reno
Sala, Frank Joseph, Jr.	ME	Fr.	Reno
Salemi, Paul J.	A&S	Sp.	Reno

Name	College	Classification	Home Address
Sanches, Frank S., Jr.	A&S	So.	Sacramento, Calif.
Sandorf, John Louis	A&S	Fr.	Reno
Savidge, David	A&S	So.	Benicia, Calif.
Sanchez, John	A&S	So.	Ruth
Sancic, Charles S.	A&S	Jr.	Kent, Ohio
Sanders, Norma Luella	A&S	Fr.	Wadsworth
Sanderson, Ida Bess	A&S	Jr.	Elko
Sandow, Warren Kenneth	Ag	Fr.	Ely
Sands, Warren	A&S	Fr.	San Francisco, Calif.
Sanford, Gertrude Harriet	Ag	Jr.	Reno
Sanford, Joanne Lenora	HE	Fr.	Reno
Sartor, James D.	ME	Fr.	Mt. Shasta, Calif.
Sasenbery, Homer Glenn	CE	Fr.	Carson City
Sauer, Laura May	Ag	Fr.	Carson City
Saulisberry, Charles Nash	Ag	Fr.	Chicago, Ill.
Saurennan, John Mariou	A&S	Sr.	Reno
Savage, Leonard Joseph	ME	Fr.	Reno
Savini, Sam	A&S	So.	Yerington
Sayre, Wesley Herman	Ag	Fr.	Smith
Schadrack, Franklin C.	Ag	Fr.	Reno
Schafer, Gerard Henry	ME	Fr.	Sparks
Schempp, Marilyn Ruth	A&S	Fr.	Medford, Ore.
Schindler, Anthony Ross, Jr.	A&S	Fr.	Reno
Schindler, Cecilia Delores	A&S	So.	Reno
Schmaling, Frances Naomi	A&S	Fr.	Smith
Schoenfeld, Ernest H., Jr.	A&S	Fr.	Springfield, Mass.
Schon, Michael Fredrick	A&S	Fr.	Reno
Schultz, John Charles	A&S	Fr.	Las Vegas
Schulz, Margaret Theresa	A&S	Fr.	Reno
Schulz, Wallace Wendell	A&S	Sr.	Westwood, Calif.
Schumacher, Robt. Thornton	A&S	So.	Reno
Schwartz, Lyman Wayne	A&S	Sr.	Paradise Valley
Schwartz, Rita Frances	A&S	Fr.	Chicago, Ill.
Schwarz, George Andrew	Ag	Fr.	Winnemucca
Scoffield, Ray Flint	CE	Fr.	Oakland, Calif.
Scofield, Marilyn B.	A&S	Fr.	San Diego, Calif.
Scott, James Burton	MM	Sp.	Reno
Scoufelis, Artie	A&S	Fr.	Long Is. City, N. Y.
Semeria, Jules Henery	A&S	Fr.	Reno
Setterquist, Lee Reinhold	ME	Fr.	Vallejo, Calif.
Sever, Freeman David	A&S	Fr.	Elgin, Ill.
Sewell, Mary Louise	A&S	Jr.	Reno
Seymour, Donald Rodine	ME	Fr.	Mammoth Lakes, Cal.
Sharp, Gerald H.	Ag	Fr.	Tonopah
Sharp, Miriam Irene	A&S	Fr.	Tonopah
Shaw, Rondell Bryce	EE	Sr.	Reno
Shaw, Virginia	HE	Jr.	Reno
Sheldon, Wayne Francis	EE	Fr.	Elko
Shawe, Cora Lee	A&S	Jr.	Gardnerville
Shawe, Fred Rhodes	MM	So.	Gardnerville

Name	College	Classification	Home Address
Shelly, Barbara Alice	A&S	Fr.	Reno
Shelton, Warren Heath	EE	Fr.	Boulder City
Shepard, Patricia	A&S	So.	Sparks
Shepard, William Edward	ME	So.	Henderson
Sherwood, William Henry	A&S	Sr.	Reno
Shevlin, John Edward	CE	So.	Reno
Shields, Charles Lester	A&S	So.	Tonopah
Shoemaker, David Whitman	MM	Jr.	Santa Monica, Calif.
Short, Carl Jerry	A&S	So.	Sparks
Short, Charles Robert	EE	Jr.	Reno
Short, Malcolm Ward	A&S	Fr.	Reno
Short, Ted Fairchild	A&S	Fr.	Reno
Sieber, Richard J.	A&S	So.	Reno
Siler, William Millard	A&S	Fr.	Walnut Creek, Calif.
Silliman, Floyd	A&S	Fr.	Ely
Silverman, Burton Barnett	A&S	Fr.	Las Vegas
Simon, Beverly Rae	A&S	So.	Jean
Simon, Marjorie Marie	A&S	Sr.	Jean
Simons, Cheryl Winifred	A&S	Fr.	N. Las Vegas
Simpson, John Hampton	MM	Fr.	Goldfield
Sinofsky, Kenneth Jack	A&S	Sr.	E. Rutherford, N. Y.
Sirkegian, Jacqueline Dora	A&S	So.	Kimberly
Skinner, Louis Lloyd	A&S	Fr.	Reno
Slattery, William Hughes, Jr.	EE	Fr.	Fallon
Slingland, Edw. Rainey, Jr.		Gr.	Paterson, N. J.
Slingland, Florence Twidale	A&S	Sp.	Vancouver Isl., Can.
Sloan, Jane Ellis	HE	So.	Reno
Sloan, Loran Gerald	A&S	Sr.	Covina, Calif.
Slover, Robert Martin	A&S	Fr.	Las Vegas
Smales, John Frederick	EE	So.	Elko
Small, James Garfield		Gr.	Reno
Smart, Donald Cleveland	A&S	So.	Reno
Smart, Doris Andrea	A&S	So.	Reno
Smiley, Muriel Evelyn	A&S	Jr.	Wells
Smith, Barbara Irene	A&S	Jr.	Sparks
Smith, Charles Hogue	A&S	So.	Reno
Smith, Donald Floyd	A&S	Fr.	Ely
Smith, Douglas Rex	A&S	So.	Riverside, Calif.
Smith, Earl Horace, Jr.	A&S	Fr.	Truckee, Calif.
Smith, Frances Abernathy	A&S	Jr.	Ruth
Smith, Daisy Lucille	A&S	Fr.	Las Vegas
Smith, Gardner Paul	A&S	Fr.	Modesto, Calif.
Smith, Gerald Charles	ME	Fr.	Ruth
Smith, James Howard	MM	Jr.	Colfax, Calif.
Smith, James Theodore	A&S	So.	Reno
Smith, John William	CE	Jr.	Vallejo, Calif.
Smith, LaMar Ralph	A&S	So.	Fallon
Smith, Richard Ross	CE	So.	Ely
Smith, Robert Alfred	A&S	Jr.	Del Paso Hts., Calif.
Smith, Roderick Russell	A&S	Fr.	Reno

Name	College	Classification	Home Address
Smith, Ross Wilbert	MM	Jr.	Watsonville, Calif.
Smith, William Freeman	MM	Fr.	Las Vegas
Smith, William Harold, Jr.	Ag	Fr.	Austin
Smitten, Theo Ann	A&S	Fr.	Fallon
Smithwick, Opal Marie	A&S	Fr.	Beowawe
Snyder, Guy Waldron	A&S	Sp.	Reno
Snyder, John Alford	EE	Fr.	Hawthorne
Sodergreen, Doris Augusta	A&S	Fr.	Battle Mountain
Somers, Sharon Lue	A&S	Fr.	Las Vegas
Sommer, Arthur Eugene	EE	Fr.	Reno
Sommer, Charles R.	EE	Jr.	Reno
Sorensen, Alfred	A&S	So.	Sparks
Sorensen, Della Vienna	A&S	So.	Reno
Souter, Clyde Douglas	A&S	Sp.	Reno
Sparks, William Arnold	A&S	Fr.	York, Penna.
Sparrowe, Adela May	A&S	Fr.	Berkeley, Calif.
Spell, Jacqueline Patricia	A&S	Fr.	McGill
Spencer, Harry Patric	A&S	So.	Ft. Lauderdale, Fla.
Spencer, Herbert George	A&S	Fr.	Las Vegas
Spencer, Wallace Duane	A&S	Fr.	Ruth
Spieldoch, Richard Barry	ME	So.	Reno
Spirig, John Joseph	A&S	Sr.	New York, N. Y.
Spoon, John David	ME	Jr.	Sparks
Spradling, Delores Irene	A&S	So.	Reno
Sprague, Charles Wayne	Ag	Jr.	Overton
Sprague, Harvey Callis	A&S	Fr.	Panaca
Sprague, Paul Marion	A&S	Fr.	Reno
Springer, Charles Edward	A&S	So.	Reno
Springer, Donald George	EE	Fr.	Reno
Sprout, Eugene Clifford	CE	Jr.	Herlong, Calif.
Stacy, Joann Marette	A&S	Fr.	Tulelake, Calif.
Stafford, Victor Haig	MM	Jr.	Reno
Stanford, Jerry Alan	A&S	Fr.	Las Vegas
Stanley, Theodore Geoffrey	A&S	Jr.	Reno
Stark, Robert Darrel	A&S	Fr.	Tahoe, Calif.
Stead, William M.	A&S	So.	Reno
Steel, Miles Fairman, Jr.	ME	So.	Palo Alto, Calif.
Steele, Gladys Ahwilda	A&S	So.	Sparks
Steele, Robert Paul	MM	So.	Ely
Stephens, Ialo Dewitt, Jr.	MM	So.	Roseburg, Ore.
Sterling, Kathryn	A&S	Jr.	Lovelock
Stevenson, Jerold Earl	A&S	Sp.	Freedom, Calif.
Stever, John Vantuyl	A&S	Sr.	Reno
Stitchter, Ryel	A&S	So.	Reno
Stimac, Paul Joe	A&S	Fr.	Mt. Iron, Minn.
Stiverson, Mary Lou	A&S	Fr.	Fallon
Stodelle, Elaine Moreland	A&S	Fr.	San Bernardino, Cal.
Stone, Kenneth Clyde, Jr.	EE	So.	Raleigh, N. C.
Storey, Albert Earl, Jr.	A&S	Fr.	Las Vegas
Storey, Grace Margaret	A&S	So.	Las Vegas

Name	College	Classification	Home Address
Story, George Wesley	EE	So.	Esparto, Calif.
Straight, James Wesley	MM	Fr.	Sparks
Straka, Eugene Bernard	Ag	So.	Bridgeville, Penna.
Strang, Robert Crawford	A&S	So.	Reno
Strange, Verna Mae	A&S	Fr.	Ely
Stratton, Edgar James	Ag	Fr.	Reno
Streeter, Richard Lee	EE	So.	Sparks
Streng, George Edwin	A&S	Fr.	Reno
Struble, Jack Drummond	A&S	Fr.	Hayward, Calif.
Stucki, Darlene	HE	So.	E. Ely
Stuhlman, John Lloyd	A&S	Fr.	St. Paul, Minn.
Stutz, Ronald Duane	A&S	Fr.	Las Vegas
Subda, John Stanley	A&S	So.	E. Rutherford, N. J.
Sullivan, Daniel Joseph	A&S	Fr.	Reno
Sullivan, John Joseph	MM	So.	Elko
Sullivan, Timothy Paul	EE	Jr.	Reno
Summers, Maclin B.	A&S	Jr.	Reno
Sumner, Robert Charles	A&S	Jr.	Hayward, Calif.
Sumner, Wilfred Almond	Ag	Fr.	Hayward, Calif.
Surber, Gordon Edward	A&S	Fr.	Elgin, Ill.
Sutton, Raymond Ellsworth	A&S	Fr.	Henderson
Swanson, Donald Wayne	A&S	Sp.	Babbitt
Swanson, Harry Brooks	A&S	Jr.	Reno
Swanston, Judith Irene	A&S	Fr.	Reno
Sweatt, Eleanor F.	A&S	Fr.	Reno
Sweeney, Elizabeth	A&S	Jr.	McGill
Swenson, David Hamilton	CE	Fr.	Fallon
Swift, Joseph Edmund	A&S	Fr.	Pueblo, Colo.
Switzler, Shirley Jean	A&S	Fr.	Santa Ana, Calif.
Swobe, Chester Coe	A&S	So.	Reno
Swobe, John William	A&S	Fr.	Reno
Tabor, Alva	A&S	Fr.	Los Angeles, Calif.
Talley, Fred Lee, Jr.	CE	Jr.	Paris, Tenn.
Tam, Charles Ernest	EE	Fr.	San Francisco, Calif.
Tanner, Michael Norman	EE	Fr.	Stockton, Calif.
Tarble, Richard Douglas	A&S	Sr.	Sparks
Tate, James Wesley	A&S	Fr.	Madelia, Minn.
Tatham, Lewis C.		Gr.	Sparks
Tavelle, Jacqueline	A&S	Fr.	San Francisco, Calif.
Tavernia, George Philip	A&S	Sr.	Sparks
Tavernia, Marilyn Jeane	A&S	Jr.	Sparks
Taylor, Delmar		Gr.	Reno
Taylor, Donald Bruce	A&S	Fr.	Kimberly
Taylor, James John	A&S	Sr.	Reno
Taylor, Marrium Anne	A&S	Sr.	Reno
Tett, Mark Pierson	EE	Fr.	Los Angeles
Therkelsen, Edward Robert	MM	So.	Reno
Thiercof, Drury Joseph	A&S	Fr.	Reno
Thomas, Carol Jean	A&S	So.	Sparks

Name	College	Classification	Home Address
Thomas, Iva A.	A&S	Sp.	Reno
Thomas, James	A&S	Sp.	Reno
Thomas, Richard Leo	ME	Fr.	Ely
Thomas, Robert William	CE	Fr.	Mankato, Minn.
Thompson, Craig Dickenson	MM	Jr.	Cumberland, Md.
Thompson, Donald Sheldon	A&S	So.	Reno
Thompson, Genevieve Leonard		Gr.	Glendale, Calif.
Thompson, Howard W., Jr.	A&S	So.	Reno
Thompson, Louise Harriet	A&S	Fr.	Hawthorne
Thompson, Lucille Margaret	HE	Fr.	Hawthorne
Thomsen, Delbert Eugene	A&S	Sr.	Winnemucca
Thornton, Dwight Elmer	EE	Fr.	Ruth
Thrailkill, Gene Elwood	A&S	Fr.	Reno
Thran, Leslie Wilbur	EE	Fr.	Minden
Thronson, Robert Edward	MM	Jr.	Queens Village, N.Y.
Tieslau, Boyd Edmund	A&S	Jr.	Quincy, Calif.
Tietje, Louanna	A&S	So.	Gardnerville
Tilton, Richard Victor	A&S	Fr.	Evansville, Ind.
Timberlake, Alice Grace	A&S	Fr.	Reno
Tinsman, Veldron LaVerne	A&S	Fr.	Reno
Toczylowski, Edward	A&S	So.	Lynn, Mass.
Tomaseck, Frederick Roe	MM	Fr.	San Gabriel, Calif.
Tompson, Robert Norman		Gr.	Reno
Tonning, Kristian	CE	Jr.	Stryn, Norway
Torassa, George John	MM	Fr.	Riverside, Calif.
Torre, Frank	EE	Sr.	Susanville, Calif.
Torvinen, Gene Allen	A&S	Fr.	Reno
Torvinen, Jerry Dean	A&S	Fr.	Reno
Torvinen, Roy Lee	A&S	Fr.	Reno
Totah, David Salem		Gr.	San Francisco, Calif.
Tower, Franklyn James	A&S	So.	Reno
Towner, David Washburn	CE	So.	Oakland, Calif.
Townsend, Richard Parker	MM	Fr.	San Jose, Calif.
Trachok, Richard Matthew	A&S	So.	Jerome, Penna.
Trainor, Lawrence Wright	MM	Fr.	Waterloo, Iowa
Trathen, James Henry	MM	Fr.	Grass Valley, Calif.
Triolo, John Patrick, Jr.	EE	Fr.	Stockton, Calif.
Tripp, Walter Clifton	EE	So.	Reno
Trollope, Harry		Gr.	Reno
Trulove, Velva C.		Gr.	Sparks
Truman, Richard	A&S	Fr.	Logandale
Tucker, Ralph M.	A&S	So.	Reno
Tudor, Mathew Sanford	MM	Jr.	Thorne
Turner, Donald Quelch	A&S	So.	San Francisco, Calif.
Twaddle, Eben	Ag.	Fr.	Reno
Uecker, Robert Perry	A&S	Fr.	Reno
Umbenhaur, George Walter	A&S	So.	Reno
Unsworth, Nanette Marion	A&S	Fr.	Reno
Upton, Weldon Carl	A&S	So.	Reno

Name	College	Classification	Home Address
Urrels, Marie Yvonne	A&S	Fr.	Vya
Urresti, Jess	ME	Fr.	Wells
Urrutia, Barbara Clare	A&S	Sp.	Reno
Vandenberg, Clarence W.	MM	Fr.	Ripon, Calif.
Vandenberg, Richard, Jr.	CE	Fr.	Ripon, Calif.
Vandervelden, Donald Joseph	Ag	Fr.	Reno
Vandervelden, Lillian M.	HE	Sp.	Reno
Van Dyke, Charles W., Jr.	CE	Fr.	Cortland, N. Y.
Vange, June	A&S	Fr.	Reno
Van Tassel, William V.		Gr.	Reno
Van Wagenen, Bernard P.	ME	So.	Reno
Varischetti, Harry Albert	MM	So.	Grass Valley, Calif.
Vassar, Roscoe Kay	ME	So.	Genoa
Vaughan, Robert Oren	A&S	Jr.	Arthur
Victor, Richard A.	EE	Fr.	Jerome, Idaho
Viebrock, John Francis	Ag	Fr.	Stockton, Calif.
Vilas, Walter Alan	EE	Fr.	Reno
Voskay, Ibrahim Hilmi	A&S	Fr.	Istanbul, Turkey
Vucanovich, George J.	A&S	So.	Round Mountain
Wait, Eugene Jacob, Jr.	A&S	So.	Reno
Walker, David Connie	EE	So.	Reno
Walker, Inez		Gr.	Sparks
Walker, Marguerite	A&S	Fr.	Pioche
Walker, Ramona Marjorie	HE	So.	Sparks
Walker, Robert Joel	A&S	Jr.	Fallon
Wallace, Anna Bee	HE	Fr.	Battle Mountain
Wallace, Wilbur Robert	EE	Fr.	Auburn, Calif.
Walldin, Roy Jonas	A&S	So.	Tulelake, Calif.
Walpole, John Patrick	A&S	Sr.	Alameda, Calif.
Walsh, James L.	A&S	Fr.	Las Vegas
Walsh, Norma Anne	A&S	Fr.	San Francisco, Calif.
Waltenspiel, George Weston	A&S	Fr.	Reno
Walter, Herbert Guy, Jr.	A&S	So.	Reno
Wanke, Walter John	ME	Sr.	Sparks
Ward, Harry Johnson	A&S	Jr.	Reno
Ward, Joseph Leo	A&S	So.	Providence, R. I.
Wardle, Austin Robert, Jr.	A&S	Jr.	Tonopah
Warren, Norman F.	MM	Jr.	Elko
Warren, Robert William	A&S	Fr.	Sparks
Warriner, Mrs. Elizabeth	A&S	Sp.	Chevy Chase, Md.
Wastun, Suzanne Lynn	A&S	Fr.	Mason
Waterman, Irene Francis	A&S	So.	Reno
Waterstraat, Vivian C.	A&S	Sr.	Wapato, Wash.
Watters, Sophie Pintchuck	A&S	Fr.	Reno
Watts, Elspeth Ann	Ag	Fr.	Boulder City
Waugh, Betty		Gr.	Sparks
Waymire, Robert Hunt	A&S	Fr.	Overton
Webb, Robert McAllister	ME	Fr.	Boulder City
Webber, James Hugh	CE	Fr.	Davis Dam

Name	College	Classification	Home Address
Weber, Robert Jefferson	ME	Sr.	Santa Maria, Calif.
Webster, Ralph Terrence	MM	Sr.	Beltrami, Minn.
Webster, Raymond Elmer	EE	Fr.	Los Angeles, Calif.
Wehrle, James Leo	A&S	Sr.	Marshall, Mich.
Welch, Rosemary	A&S	Sr.	Tonopah
Weller, Ross	A&S	Sr.	Reno
Wells, Bulkeley, Jr.	A&S	Fr.	Battle Mountain
Wells, Joy	HE	Fr.	Las Vegas
Welsh, Charles Patrick	A&S	Fr.	Reno
Welsh, Maurice L.	A&S	Sp.	Reno
Welsh, Warren James	Ag	Jr.	Yerington
Welty, Patricia Thom	A&S	Fr.	Reno
Wengert, Robert Edwin	EE	Jr.	Las Vegas
Wennerberg, Ernest William	A&S	Fr.	Pasadena, Calif.
Wennhold, William Frederick	ME	Fr.	Minden
West, Mary Rae	A&S	Fr.	Overton
Westall, Alfred Helm	MM	Fr.	Virginia City
Whalen, Buddie	A&S	Fr.	Fallon
Whitaker, Raymond Lee	CE	So.	Reno
White, Robert Steven	ME	So.	Blue Diamond
Whitehair, Marilyn	A&S	Fr.	De Land, Fla.
Whitehouse, William Edmond	MM	Fr.	Oro Grande, Calif.
Whitford, Fred William	MM	Jr.	Grass Valley, Calif.
Whitman, William P.	A&S	Sp.	Reno
Whitmer, Philip Francis	A&S	Jr.	Palo Alto, Calif.
Whitmire, John Thomas	A&S	Fr.	Reno
Whitney, Scott Cameron	A&S	Jr.	Reno
Whitworth, Betty Jane	A&S	So.	Reno
Whitworth, Edith Frances	A&S	So.	Reno
Wigg, Arthur Edward	EE	So.	Yerington
Wigglesworth, Robert John	MM	Fr.	Pioche
Wiggins, Ray Lloyd	A&S	Fr.	Boulder City
Wikstrom, Julia Elizabeth	A&S	Fr.	Reno
Wilde, Joan Katherine	A&S	Fr.	Las Vegas
Wiley, Madge	A&S	So.	Montello
Willett, Roger Vincent	A&S	Fr.	Sacramento, Calif.
Williams, Barbara Elizabeth	A&S	So.	Sparks
Williams, Harry James	A&S	Jr.	Sparks
Williams, James Templeton	A&S	Jr.	Minden
Williams, John Anthony	A&S	So.	Sparks
Williams, John C.	MM	Fr.	San Francisco, Calif.
Williams, Kenneth Charles	A&S	Sr.	Fernley
Williams, Richard Earl	A&S	Fr.	Carson City
Williams, Shirley Campbell		Gr.	Fernley
Williams, Wallace Everett	A&S	Fr.	Ruth
Williams, William Dangberg	MM	Sr.	Minden
Williamson, Shirley Anne	A&S	Fr.	Las Vegas
Wilson, Frank	A&S	So.	Reno
Wilson, Hugh Duane	A&S	Fr.	Reno
Wilson, Jacquelyn	A&S	So.	Ely

Name	College	Classification	Home Address
Wilson, James	A&S	So.	Philadelphia, Penna.
Wilson, Joanne Adele	A&S	Fr.	Reno
Wilson, Kenneth Carl	Ag	Fr.	Carydon, Iowa
Wilson, Patricia Anne	A&S	Jr.	Las Vegas
Wilson, William Randolph	A&S	Sp.	Reno
Wilson, Yvonne Tennyson	Ag	So.	Reno
Wilton, Jean	A&S	Fr.	Los Angeles, Calif.
Winer, Suzanne	A&S	Fr.	Wendover
Winchester, Lynn	A&S	Fr.	Santa Barbara, Cal.
Winn, Billie Rae	A&S	Sr.	Beverly Hills, Cal.
Winsor, Melvin Murkins	MM	Jr.	Panaca
Winternitz, Harriett Jane	A&S	Fr.	Colo. Springs, Colo.
Winterowd, Walter Ross	A&S	So.	McGill
Wirsching, Joseph Edward	A&S	Jr.	Reno
Wiseman, Richard Merel	A&S	Fr.	Reno
Withers, Janet C.	A&S	Fr.	Reno
Wolford, Raymond	A&S	So.	Reno
Wolford, Ronald Eugene	CE	Fr.	Bishop, Calif.
Woo, Gee Gay	A&S	Fr.	Reno
Wood, Donald Eugene	A&S	So.	Reno
Wood, Fred Orlando	A&S	Sp.	Elko
Wood, William Bourne	MM	So.	San Francisco, Calif.
Woodbury, Willis Verne	A&S	Fr.	Reno
Works, Byron Wendell	A&S	So.	Big Pine, Calif.
Wright, Richard Earl	A&S	Fr.	Elko
Wright, Theodore	A&S	Fr.	San Mateo, Calif.
Wulff, Jack Goodman	CE	Jr.	Sacramento, Calif.
Wyness, Gerald Bruce	A&S	So.	Boulder City
Yates, Floyd Merideth, Jr.	EE	Jr.	Reno
Yeakey, Janice Margaret	A&S	So.	Reno
Yee, Layton	EE	So.	Santa Barbara, Cal.
Yenter, Jo Ann	A&S	Fr.	Fernley
Yim, Margaret	A&S	Fr.	Minden
Yim, Billie	A&S	So.	Minden
Yim, Robert Earl	A&S	Jr.	Minden
York, Kenneth Stewart	A&S	So.	Reno
Youell, Nathan Dale	A&S	Fr.	Reno
Young, Barbara Clare	A&S	Fr.	Reno
Young, Daniel Lee	ME	Fr.	Bishop, Calif.
Young, Ervin Jack	A&S	Fr.	Reno
Young, William Lee	A&S	Sp.	Reno
Yparraguirre, Daniel Louis	A&S	So.	Gardnerville
Yturbide, Bonifacio	A&S	Sr.	Reno
Zachringer, Dorris M.	A&S	Jr.	Sparks
Zahm, Patricia Mercedes	A&S	Fr.	Henderson
Zappettini, George	Ag	Jr.	Currant
Zecher, William Alfred	A&S	Fr.	Fallon
Zeigler, Harold Alvin	EE	Fr.	Rego Park, N. Y.
Zenklusen, William Henry	ME	So.	Sparks
Zippman, William Michael	A&S	So.	Chicago, Ill.
Zorio, Louis	A&S	So.	Winnemucca
Zorzakis, Mary	A&S	So.	San Francisco, Calif.
Zurfluh, Leslie Olds	A&S	Fr.	Reno

Summer Session, 1948

Aalde, Kaare.....Sparks
Abernathy, Frances.....Ruth
Affleck, Harold W.....Boise, Idaho
Albright, Mamie.....McGill
Aldrich, Catherine May.....Fernley
Allen, Babette L.....Reno
Allum, Mary.....Yerington
Andersen, Margaret A.....Sparks
Anderson, Chester J.....Reno
Arenaz, Rose.....Reno
Armstrong, Blanche R.....Reno
Asta, Vincent J.....Elk Grove, Calif.
Atkins, John T.....Needles, Calif.
Auchampaugh, Virginia.....Reno
Ayala, Constance L.....Reno
Bailey, Buell M.....New Orleans, La.
Bailey, Eileen.....Yerington
Baker, Julia.....Reno
Baker, Richard.....Mina
Baldwin, Roy .....Indiana, Pa.
Ball, Arlene Ann.....Reno
Bang, Bernard.....Lund, N. M.
Barakat, Ruth Louise.....
.....W. Philadelphia, Pa.
Barbieri, Aurelio A.....Reno
Barger, Floyd J.....Reno
Barkley, James R.....Fallon
Barney, Rolland V.....
.....San Francisco, Calif.
Barrios, Alberto H.....Reno
Barry, Philip C.....San Pablo, Calif.
Barry, Wesley E.....
.....Soda Springs, Calif.
Barta, James J.....E. Chicago, Ind.
Bartolomei, Marjorie.....
.....Pittsburg, Calif.
Bashista, Joseph.....Reno
Batjer, Grace N.....Smith
Beach, Freeman H.....Reno
Bean, Raymond.....Moorfield, W. Va.
Beasley, W. Scott.....Sullivan, Ind.
Beck, Willda M.....Draper, Utah
Beezer, Jack.....Reno
Bell, Arthur J.....Reno
Bell, James V., Jr.....Boothbay, Me.
Bell, Shirley.....Las Vegas
Benedict, Adele.....El Paso, Texas
Benjamin, Dayton.....Las Vegas
Benjamin, Ruth.....Las Vegas
Bennett, Elizabeth.....Reno
Bennett, Esther.....Reno
Bennett, George D.....Tonopah
Bennett, Thomas J.....Chicago, Ill.
Bernard, Lowell C.....Reno
Berry, Herbert A.....Chico, Calif.
Berry, Olive.....Sparks
Bertrand, Ann.....Reno
Billings, Rachel.....Doyle, Calif.
Bills, John E.....Reno
Birdsall, Maurice.....Clarion, Iowa
Birdsall, Wallace O.....Reno
Birks, Wilma.....Reno
Bishop, Vivien.....Fallon
Bissett, John R.....Reno
Black, Harold S.....Plainfield, N. J.
Black, Moray.....Reno
Blaemire, M. P.....Henderson
Blaser, Dora.....Elko
Bledowski, Helen.....Reno
Boettcher, Jerome.....Vallejo, Calif.
Boggess, Betty.....Reno
Bondley, George B.....Las Vegas
Bonsall, Leo.....New York, N. Y.
Borghi, Lillian.....Sparks
Bowden, William G., Jr...Las Vegas
Bowles, Robert I.....Nampa, Idaho
Boyer, Gordon N.....
.....San Francisco, Calif.
Boyle, Edward Joseph.....Reno
Boyle, Mary Jane.....Sparks
Boyles, Loismay.....Reno
Bradshaw, Betty.....Elgin
Brander, Roger W.....Reno
Branneman, Hazel.....Colton, Calif.
Brown, Betty J.....Reno
Brown, Beverly L.....Boulder City
Brown, Binney A.....Reno
Brown, Eleanor F.....Reno
Brown, Frederick E.....Reno
Brown, Jack Lee.....Reno
Brown, Meryde G.....Winnemucca
Brown, Raymond.....
.....Los Angeles, Calif.
Brownell, Lester G.....
.....Sacramento, Calif.
Brundy, Richard James..Las Vegas
Brush, William P.....Reno
Buchanan, Jessie.....Reno
Buck, William E.....Reno
Buonamici, Rino.....Reno
Burcell, Harry James.....
.....Auburn, Calif.
Burke, Charles H.....Reno
Burt, Hazel.....Boulder City
Burton, Louise..Grand View, Idaho
Butler, Robert William.....
.....Santa Maria, Calif.
Byars, Florence.....Reno

Byrd, Lucille.....Reno
Cain, Stella.....Anaheim, Calif.
Campbell, Mildred W.....Austin
Campbell, Robert Elton.....
.....Highlands, Calif.
Cann, George R.....Reno
Cannan, John Patrick.....Reno
Canonic, Florence.....Verdi
Cardenas, Sara.....Reno
Carmichael, Patricia.....Las Vegas
Carmody, John P.....Chicago, Ill.
Carson, Thomas C.....
.....National City, Calif.
Caruso, Carmel.....Dilliner, Pa.
Caserta, John A.....Reno
Catich, Jack George..Fresno, Calif.
Cedarholm, Joseph P.....
.....Sacramento, Calif.
Chamberlin, John L.....Reno
Chapman, Helen E.....
.....Nevada City, Calif.
Checchi, Albert L.....Sparks
Chesley, Velda I.....Boulder City
Chichester, Alice A.....Reno
Childress, Sidney B.....
.....Clintwood, Va.
Choy, John.....San Francisco, Calif.
Churchill, Florence E.....Sparks
Clark, Lila S.....Reno
Clark, Mildred R.....Sparks
Clarke, Ann.....Avondale, Ariz.
Coale, Jack M.....Oroville, Calif.
Cobb, Beatrice M.....Portland, Me.
Coggins, Lucile B...Petaluma, Calif.
Coleman, Carl E....Richmond, Calif.
Collins, Benjamin J.....Reno
Collins, Chester F.....Reno
Colquhoun, Ada.....Reno
Colvin, Faye.....Las Vegas
Connolly, Bernard L.....
.....Sacramento, Calif.
Connolly, Charles E.....Reno
Connolly, Joseph J.....
.....Sacramento, Calif.
Conrad, Jean B.....Reno
Cook, Woodrow W.....Man, W. Va.
Corley, Robert M.....
.....Los Alamitos, Calif.
Cosper, Sarah A.....Duncan, Ariz.
Coverston, Ethelyn E.....Fallon
Covington, Dorothy G.....
.....Holtville, Calif.
Covington, Edward B., Jr.....
.....Holtville, Calif.
Cox, Don K.....Reno
Cox, Lowell J.....Battle Mountain
Cox, Rosemary J...Battle Mountain
Cramer, Marjorie C....Chilton, Wis.
Crary, Margaret W.....
.....Dallas City, Ill.
Craven, William P.....
.....Fallen Leaf, Calif.
Crayne, Rex G.....Iowa City, Iowa
Creed, Jeanne F.....Reno
Crescenzo, Frank G.....Reno
Crystal, Georga.....Vacaville, Calif.
Cudinski, Anthony J.....Reno
Currie, Alice L.....Bishop, Calif.
Cutler, Bradford F.....Reno
Dale, Harold D., Jr.....
.....Manhattan Beach, Calif.
Damron, Louise M.....Ruth
Damron, Lucille.....Reno
Dana, Robert P...Pleasanton, Calif.
Daniel, Ruth M.....Reno
Davis, Alice L.....Ruth
Davis, Augustus J.....Reno
Davis, Grant.....Carson City
Davis, James C.....San Diego, Calif.
Davis, Jerry L.....Placerville, Calif.
Davis, Kenneth O.....Gerlach
Dean, Emily.....Juneau, Alaska
Deeney, James C.....
.....Prairie City, Ore.
De Gross, Paul R.....Concord, N. H.
De Lauer, Leland K.....Reno
De Nevi, Angela.....Reno
Denton, Carol M.....
.....Corona Del Mar, Calif.
DeRuchie, Ellen.....Stockton, Calif.
DeVore, Maurice.....Alturas, Calif.
Diehl, Jack F.....Reno
Dieringer, Marie.....Reno
Dillon, Eileen.....Reno
Dini, Joseph.....Yerington
Dinsmore, Frankie K.....Ukiah, Cal.
Dolan, William M.....Carson City
Dondero, Alan G.....Carson City
Donlin, Paula.....Boulder City
Drakulich, Duke.....Kimberly
Drakulich, Michael.....McGill
Drakulich, Stanley.....Kimberly
Drewette, Frederick.....Reno
Dulgar, Amma.....Sparks
Dulgar, Doris E.....Sparks
Duffy, Charles C.....Sparks
Duncan, John M.....Hazleton, Ind.
Dunn, Isabel.....Alhambra, Calif.
Dunn, Katherine G.....Sparks
Eason, Richard L.....Sparks
Eby, Cecil D.....Charleston, W. Va.
Edlind, Gladys.....Reno
Edwards, Joyce LaBelle.....
.....Fresno, Calif.

Ehlen, Berneice B.....Sparks
Ekel, Thomas M.....Reno
Ellingsen, Robert L.....
.....Wantagh, N. Y.
Elpern, Mary M.....Reno
Enke, Helen R.....Elko
Ensslin, Theodore.....
.....Porterville, Calif.
Estes, George A.....Reno
Estes, Ida Marie.....Reno
Eustachy, George M.....
.....Oakland, Calif.
Evans, Galen.....Reno
Falconeri, Gennaro.....Reno
Faltermayer, H. Jeannette.....Reno
Fancher, Helen F.....Lovelock
Farnsworth, Darwin.....
.....Winters, Calif.
Feit, Cornelius J.....Reno
Ferrari, Evelyn.....Sparks
Fiddes, Paul E.....Ruth
Fields, Bert.....San Diego, Calif.
Figley, Ethel.....Reno
Fiscus, Joyce.....Reno
Flangas, Gus A.....Ely
Fleming, Charles W.....Spencer, Ia.
Fleshman, Robert D.....Reno
Fowler, Arnold A.....
.....Charleston, W. Va.
Franklin, Glenn S.....Reno
Frantz, Ted Claude.....Reno
Frehner, Gordon.....Las Vegas
Fricke, Calvin A.....Reno
Fritch, Lewis H.....Reno
Frizzell, Russell B.....Reno
Fruewald, E. George....Ogden, Utah
Fuchs, Betty.....Reno
Fugit, William D.....Pendleton, Ore.
Fuss, Robert H.....Lovelock
Fyfe, Ruth.....Las Vegas
Gallagher, Hugh.....Virginia City
Gamble, John R.....Smith
Gardner, Pete D.....
.....Salt Lake City, Utah
Gardner, Ruth.....Sparks
Garrett, Gene G.....Golconda
Gartler, Seymour.....
.....N. Hollywood, Calif.
Gay, Frank R.....Virginia City
Gent, William R.....Reno
Geohegan, William L.....
.....Altadena, Calif.
Geyer, Charles W.....Reno
Gianella, Faith M.....Reno
Gibson, Janet.....Eureka
Gibson, Robert.....Reno
Gilbert, Mabel.....Luning
Gilbert, Marvin D.....Reno
Gildner, William W.....Las Vegas
Gillies, Inez.....Sparks
Gillmore, Frederick.....
.....Pensacola, Fla.
Ginocchio, Andrea.....Reno
Gist, Wendell A.....Whittier, Calif.
Glahn, Reginald.....Reno
Gomm, Roy H.....Sparks
Gonfiantini, Nello.....Reno
Gori, Floyd Edward.....Sparks
Gorman, Francis J.....Wells
Gough, Ray Frank.....Reno
Gould, Barbara.....Reno
Graban, Michael..Fort Jones, Calif.
Grady, Dolores M.....Reno
Graham, Lena.....Las Vegas
Gramkow, Edwin W.....Reno
Granata, Evo A.....Reno
Grant, Evangeline.....Reno
Green, Chester A.....Reno
Green, Phyllis.....Sparks
Grieves, Alice P.....Reno
Griffen, Gloria.....Reno
Grotegut, Eugene.....Reno
Grover, Theodore.....Boulder City
Hackett, Helen.....Pioche
Hall, Norman S.....
.....Klamath Falls, Ore.
Hammond, Hedwig.....Golconda
Hanley, Mary C.....Reno
Hanley, Robert.....Reno
Hansen, Marilyn.....Verdi
Hansen, Rubel.....Reno
Hansen, Stanley.....Cedar Falls, Ia.
Harker, James S.....Reno
Harp, Merrie Jo.....McGill
Harris, Brunson.....
.....San Francisco, Calif.
Harris, Edith.....Reno
Hartman, Margaret E.....Reno
Harwood, Dewey S., Jr.....Reno
Hauk, Robert W....Pasadena, Calif.
Hawkins, Arlie.....Hawthorne
Hawkins, Gordon L.....Las Vegas
Hawkins, Leslie E.....Reno
Heath, Stan.....
.....Menomonee Falls, Wis.
Hedges, Weldon Lee.....Reno
Heim, Esther.....Reno
Helmick, Mary.....Reno
Heltzel, Bernice.....Sparks
Hensley, Pauline...Sutter City, Cal.
Hess, John D.....San Diego, Calif.
Hicks, Georgianna.....Sparks

Hildebrand, Mamie.....Reno
Hill, Charles E.....Reno
Hill, Richard M.....Napa, Calif.
Hilliard, Emily.....Reno
Hilyer, William Joseph.....
.....Easley, S. C.
Himes, George Hadley..Carson City
Hoar, Lorna.....Tracy, Calif.
Hodge, Barbara.....Reno
Hoke, Robert S...Santa Cruz, Calif.
Holden, George.....Davis Dam
Holderman, Orville.....McGill
Hollingsworth, Edgar.....Lovelock
Holman, Shanna.....Ely
Holmby, Harold.....Reno
Holub, June.....Reno
Honeywell, Lois.....Reno
Hoover, Norman.....Reno
Hopkins, Galen.....Reno
Horton, Robert.....Reno
Houser, Robert W.....Reno
Howard, Ethel...Watsonville, Calif.
Howard, James M.....Reno
Howard, Landon.....
.....Long Beach, Calif.
Hubbard, Leon Ronald.....Fallon
Hui, Paul.....Reno
Hunt, Dorothy.....Reno
Hursh, Ernest W.....Fallon
Hussman, Mathilda.....Gardnerville
Hutchings, Bobby D.....Lund
Hutton, Richard T.....
.....Cucamonga, Calif.
Iacovelli, John A.....Reno
Iverson, Christine.....Ely
Ivy, Myrna J.....Las Vegas
Jack, Dale E.....Reno
Jackson, Gwendolyn.....McGill
Jemison, Rex.....Las Vegas
Jessop, Glenn S.....McGill
Jewett, Donald K.....
.....Independence, Calif.
Johnson, Frank H.....Reno
Johnson, Laurence.....Reno
Johnson, Noel William.....Reno
Johnson, Norman.....Reno
Johnson, Rolla.....Reno
Johnstone, Thelma L.....
.....San Jose, Calif.
Jones, Olga.....Reno
Joseph, Barbara.....Reno
Jordan, Zola B.....Carson City
Kane, Georgiana.....Sparks
Kaplan, Abe.....Reno
Kastenas, Boleslaus W.....Reno
Keele, Vincent S.....Sparks
Keen, Jack L.....Reno
Kegel, Jerome.....Reno
Kehoe, John J.....Reno
Kemp, Louis K.....Eureka
Kershaw, Rosellen.....Fresno, Calif.
Kimmick, Patricia.....Vallejo, Calif.
King, Buster L.....Reno
Kinney, Joseph.....Winnemucca
Kiser, Frank D., Jr.....Reno
Klimaszewski, Matthew.....Reno
Klosterman, Edward.....Reno
Knudsen, Jean A.....Wells
Knudsen, Julia S.....Wells
Knudson, Beatrice.....Las Vegas
Knudson, Elmer R.....Reno
Knudson, Maude F.....Reno
Kosakowski, Stanley.....
.....Housatonic, Mass.
Kostenko, Daniel.....Silver City
Krause, Otto.....Reno
Krueger, Minnie.....Winnemucca
Kulinovich, Anne.....Miami, Ariz.
Kurtis, Thomasine.....Reno
LaGrua, Roma.....Reno
Langley, Cordes.....Berkeley, Calif.
Larkin, Sarah.....Henderson
Larsen, Robert.....Reno
Laughery, Arlyn.....Boulder City
Lee, Edward E., Jr.....Reno
Lee, Eleanor.....Reno
Leer, Ida.....Henderson
Le Goy, Leo Robert.....Reno
Lehners, Florence.....Reno
Leisure, Carl W.....Reno
Leon, Frederick M.....Reno
Leupold, Ralph P....Norwich, Conn.
Levack, Samuel S.....Reno
Lewis, Blanche.....Reno
Lewis, Robert E.....
.....Culver City, Calif.
Lewis, Wayne E.....Logandale
Lightfoot, Donald.....Sparks
Lightfoot, Ruth.....Sparks
Lilja, Marie H.....McKeesport, Pa.
Lilley, Clara E.....Hibbing, Minn.
Lincoln, Dorothy A.....Reno
Lindskog, Carol.....Ruth
Lindskog, Leona.....Ruth
Liotard, Alphonsine.....Reno
Livierato, Eli.....Reno
Lokke, Freda.....Sparks
Lokke, Gerald.....Sparks
Long, John R.....Reno
Loring, Bertha.....Reno
Lovestedt, Lillian.....Elko
Lowenstein, Howard.....Reno
Lusebrink, Theodore.....Reno
Lusich, George.....Sparks

Lyman, Donald.....Chicago, Ill.
Lynch, Francis.....Reno
Lyon, Hilma.....Reno
Mabson, Ainsley.....Reno
MacDonald, Elizabeth.....Reno
Mack, Robert.....Reno
Madsen, Constance.....Fallon
Maloney, Doris.....Reno
Mann, Eileen.....Hawthorne
Mardellis, Anthony.....Reno
Marean, John H.....Reno
Martin, Baxter.....Reno
Martin, George E.....Newark, N. J.
Mathews, Mrs. Clyde.....Panaca
Mathis, Joe R.....Black Springs
Matthes, Albert, Jr.....
.....Charlottesville, Va.
Mattutat, Henry F.....
.....New York, N. Y.
Maule, Maris.....Reno
Maus, Minard.....Babbitt
Maxwell, Mrs. J. G.....Reno
McCabe, William.....Reno
McCloskey, Stephen.....Lovelock
McCloud, Elliott.....Sparks
McDonald, Billy.....Austin, Texas
McDonald, Hadie.....Herlong, Calif.
McElwain, Joyce.....Reno
McEwing, Edith.....Concord, Calif.
McFarland, Melba T.....Reno
McGinty, Dorothy E.....Reno
McKenna, Charles P., Jr.....Reno
McLaughlin, Leonard.....Fallon
McLeod, Mrs. Charles.....Babbitt
McNabney, James.....Sparks
McNaughton, Mary.....
.....Paradise Valley
McNutt, Wesley.....Ely
Meade, Earl.....Danville, Ill.
Mehdy, Martin.....
.....San Francisco, Calif.
Melendy, Patricia Anne.....Reno
Menard, Alan G.....Reno
Mendive, Carmen..Battle Mountain
Menicucci, Joseph.....Reno
Merrick, Priscilla B.....
.....Centerville, Md.
Merritt, Alberta.....Fallon
Merwin, Robert.....Reno
Metzker, Donald.....Reno
Meyer, Dorothy C.....Union, N. J.
Miles, Charles H., Jr.....Reno
Miller, Charlie.....Fallon
Miller, John.....Sparks
Miller, Richard G.....Reno
Miller, Wendell.....Reno
Millinger, Jack L.....Sparks
Mitchell, Helen.....Superior, Ariz.
Mitchell, Mary.....Sparks
Mitton, Charlotte.....Reno
Molignoni, Bonny.....Reno
Monaghan, George A.....
.....San Francisco, Calif.
Montgomery, Mary Ann.....
.....Long Beach, Calif.
Moody, Norma J.....Hawthorne
Moore, Frank.....Searchlight
Moore, Joseph E.....Winnemucca
Moore, Paul L.....Reno
Moore, Sally.....Winnemucca
Morgan, Margaret.....Fallon
Morganroth, Golda.....Carlin
Morrice, Edward.....
.....San Francisco, Calif.
Morrilly, Catherine.....
.....W. Townsend, Mass.
Morris, Donald H.....Sparks
Morris, William W.....Las Vegas
Morrison, Darrol.....Reno
Morrison, Robert A.....Reno
Mortara, Rita R.....Reno
Munter, Dean.....Polson, Mont.
Murdough, Charles E.....Reno
Murphy, Frederick.....Reno
Murray, Olive.....Eureka
Mustard, Donald.....Reno
Myers, Margaret.....Wellsville, N. Y.
Nagel, William L.....Carson City
Nannini, Louis G.....Golconda
Neddenriep, Chris.....Gardnerville
Nellis, Harold.....Reno
Nelson, Fred A.....Babbitt
Nelson, Henry F.....Reno
Nelson, Robert.....Kirkland, Wash.
Newell, George E.....Yerington
Newell, Herbert J.....Yerington
Nieder, Frederick.....Reno
Nielsen, Thelma.....Reno
Nightingale, Dorothea.....Reno
Nocciola, A.....Belle, N. J.
Nooney, Grove C.....Reno
Nord, Doris.....Reno
Nord, Earnest.....Reno
Norris, Eva F.....
.....Redwood City, Calif.
Norton, Sharon.....Reno
O'Brien, Lawrence.....Portola, Calif.
Olinghouse, Kenneth.....Pioche
Omoto, Clarence Y...Honolulu, T. H.
Orlich, Daniel.....Chisholm, Minn.
Orr, John.....Pioche
Osborne, Lloyd.....Bijou, Calif.
Osborne, William.....
.....Long Beach, Calif.

Overton, Elizabeth.....Scranton, Pa.
Paille, Harry Dennis.....Reno
Palmer, Robert A.....Reno
Palmer, Virginia.....Reno
Papaeliou, Vasilios E.....Reno
Park, Laverne J.....Hawthorne
Parker, James O.....Hawthorne
Parks, Mabel A.....
.....River Rouge, Mich.
Parry, Audrey J.....
.....Project City, Calif.
Paterson, Robert.....Reno
Paterson, Verna S.....Reno
Payne, Philip.....Reno
Pelizzari, John.....Reno
Perazzo, Bessie S.....Reno
Perry, Leonora.....Lund
Persigehl, Richard.....Tonopah
Petersen, Constance.....Reno
Peterson, Betty.....Hanford, Calif.
Peterson, Dwight.....Babbitt
Peterson, Medley.....Reno
Pico, Ronald E.....Las Vegas
Picollo, Marvin.....McGill
Pierce, J. Dean.....Fallon
Pilkington, Dorothy.....Reno
Pinjuv, George.....Las Vegas
Pitts, Verta.....Reno
Pollack, Elmer.....Smith
Pontecorvo, Anthony.....Reno
Porter, Tad.....Reno
Post, Lois.....Reno
Poulin, Phyllis.....Winnemucca
Price, Gretchen.....Trenton, N. J.
Price, Michael.....Reno
Pringle, John A.....Reno
Prugh, Walter H.....Reno
Purnell, Eleanor.....Winslow, Ariz.
Putnam, V. G.....Reno
Quackenbush, Maynard.....Reno
Rader, Mona.....Babbitt
Raker, Alice.....Henderson
Ray, E. R.....Reno
Ray, James C.....Reno
Ray, Jane.....Caliente
Ray, Robert C.....Reno
Reagor, Vincent.....Reno
Reed, Dorris.....Reno
Reeves, Robert G.....Reno
Reid, Ethel.....Bakersfield, Calif.
Reifschneider, Olga.....Reno
Revene, Joseph G.....Reno
Ricci, Olinto.....Dayton
Richards, Fred.....Gardnerville
Richardson, Joseph.....Las Vegas
Riddle, Robert G.....
.....Sacramento, Calif.
Rider, Virginia.....Wells
Rigby, William G.....Reno
Riggle, Mildred.....Sparks
Riggs, Homer L.....Reno
Riley, Linford Dale.....Yerington
Ritchie, Robert.....Richmond, Va.
Robb, John E.....Yerington
Robertson, Opal.....Elko
Robinson, H. Sidney.....Reno
Robison, Beth.....Ely
Rodgers, Helene J.....Reno
Rodriquez, Martin.....Kimberly
Rogers, Allen.....Berkeley, Calif.
Rogers, Evelyn.....Reno
Rogers, Will.....Reno
Rollins, William H.....Reno
Ross, John T.....Carson City
Rotz, Vera.....Healdsburg, Calif.
Rowe, Margaret.....McGill
Rowe, Wilburta.....Reno
Rowley, Janeth A.....Sparks
Rumpf, Vincent G...New York, N. Y.
Rupp, Louise.....Reno
Russler, Donald F.....
.....Elk Grove, Calif.
Rutherford, Margaret.....Duckwater
Ryan, Eleanor.....Reno
Ryan, Elizabeth A.....
.....Nevada City, Calif.
Sabey, Toni.....Rochester, N. Y.
Salemi, Paul J.....Reno
Sanches, Frank J.....Reno
Sanchez, John.....Ruth
Sandelius, Frances.....Reno
Sanford, Joanne.....Reno
Sanford, Kathryn J.....Carson City
Sanner, Josephine...Oakland, Calif.
Sasenberry, Homer.....Napa, Calif.
Saulisberry, Charles.....Reno
Saurennan, John.....Reno
Scarselli, Gene.....Sparks
Scharer, Marjorie.....Las Vegas
Schmidt, Delores.....Reno
Schoensee, Robert..Graeagle, Calif.
Schooley, Gladys.....Reno
Schulz, Wallace....Westwood, Calif.
Scott, James B.....Reno
Scott, Neil P.....Reno
Sellars, Gladys.....Reno
Sharp, Miriam.....Tonopah
Shaver, Marienne.....Reno
Sherman, Theo T.....Reno
Sherwood, William H.....Reno

Shevlin, John E.....Reno
Siard, Yvonne A.....Winnemucca
Sieber, Richard.....Reno
Silliman, Floyd.....Reno
Simoni, Frank.....Reno
Sleeper, Maxine.....Chico, Calif.
Sloan, Loran.....Covina, Calif.
Smales, John.....Elko
Smalley, Elma M.....Hawthorne
Smalley, Floyd.....Hawthorne
Smiley, Muriel.....Wells
Smith, Gerald C.....Ruth
Smith, James T.....Reno
Smith, Margaret.....McGill
Smith, Peter.....Reno
Smith, Robert A.....
.....Del Paso Heights, Calif.
Smith, William F.....Reno
Snyder, John.....Reno
Soderstrom, Gladys.....Wellington
Solt, Rosalie.....Reno
Sorenson, Arlene.....Reno
Spencer, Wallace.....Ruth
Spirig, John J.....Hyde Park, N. Y.
Spoon, John.....Sparks
Sprague, Charles.....Overton
Stanley, Homer L., Jr.....Austin
Stanley, Theodore.....Reno
Steele, Gladys.....Sparks
Stever, John V.....Reno
Stephens, Ruth L.....Verdi
Stewart, Lois.....Reno
Stewart, Ora.....Henderson
Stock, Florence.....Salinas, Calif.
Storey, Albert.....Las Vegas
Storey, Grace.....Las Vegas
Story, George.....Esparto, Calif.
Strachwitz, Frances.....Reno
Strickland, Essie.....Beowawe
Strom, Clair H.....Reno
Stuck, Raymond.....Reno
Sullivan, Nancy.....Lovelock
Sweatt, Eleanor.....Reno
Swiger, Conrad..Clarksburg, W. Va.
Swobe, John W.....Reno
Tavernia, George P.....Sparks
Tavernia, Marilyn.....Sparks
Taylor, James J.....Reno
Teel, Elva A.....Fallon
Thibodeau, Laura....Hibbing, Minn.
Thomas, Winifred.....Reno
Thompson, Carl E.....
.....Grass Valley, Calif.
Thompson, Irene.....Wellington
Thompson, Louise H.....Reno
Thompson, Lucille.....Reno
Thomsen, Delbert.....Reno
Thrailkill, Joseph.....Reno
Thran, June.....Gardnerville
Tietje, Louanna.....Gardnerville
Tognoni, George-Ann.....Eureka
Tognoni, Robert L.....Eureka
Tomany, Anne B.....Tonopah
Topken, Dorothy.....Reno
Topol, Renee.....Reno
Towles, Mamie.....Reno
Trabert, Marion.....Reno
Trathen, William R.....
.....Grass Valley, Calif.
Trowbridge, Marjorie.....Reno
Trulove, Velva.....Sparks
Turner, Blanche.....Reno
Turner, Helen.....Fallon
Twaddle, Alice.....Reno
Ueki, Harold.....Reno
Uhrlaub, J. G.....Battle Mountain
Ulrich, Betty.....Minden
Umbenhaur, George W.....Reno
Ussery, Huling E., Jr.....Reno
Ussery, Vivian.....Reno
Utley, William.....Paducah, Ky.
Van Blitter, John D.....Reno
Van Dyke, Charles W., Jr.....Reno
Van Dyke, Rhoda.....Reno
Vannucci, Elvira.....San Jose, Calif.
Van Slyck, Ashley.....Reno
Varischetti, Harry.....Reno
Vaught, Camille.....Gerlach
Vierra, Adelaide.....Hanford, Calif.
Wait, Richard.....Reno
Walker, Grace.....Pioche
Walker, Inez.....Sparks
Walker, Opal.....Hawthorne
Wallace, Wilbur.....Auburn, Calif.
Ward, Harry.....Reno
Warnecke, Mary D.....
.....Nevada City, Calif.
Warren, Donna.....Lee
Webster, Helen.....Juneau, Alaska
Wehrle, James.....Marshall, Mich.
Welch, Rosemary.....Tonopah
Weller, Ross.....Reno
Welsh, Rev. Maurice.....Reno
Welsh, Warren.....Yerington
Wengert, Robert.....Las Vegas
West, Charles V.....Annapolis, Md.
Westergard, George.....Yerington
Wheeler, Myron.....Reno
White, Ruby.....Carson City
Whitehead, Edwin.....Sparks
Whitney, Scott.....Reno
Wikstrom, Julia.....Reno
Williams, Barbara.....Sparks
Williams, Mercedes.....Las Vegas

Wilson, Ernest F.....Fallon
Wilson, John.....Herlong, Calif.
Wilson, Juanita.....Herlong, Calif.
Wilson, Lenore J.....Las Vegas
Winkel, Chester.....Reno
Winter, Alice.....Reno
Winterowd, Walter.....McGill
Wittwer, LaVerne.....Reno
Wittwer, LeNore B.....Reno
Wolford, Raymond.....Reno
Wood, William B.....Reno
Woodworth, Joseph C.....Reno
Wright, Anne.....Las Vegas
Wulff, Jack.....Sacramento, Calif.
Yorty, Robert.....Las Vegas
Yost, Mildred.....McKeesport, Pa.
Yoxen, Catherine.....Reno
Zippman, William M.....Reno
Zorzakis, Mary.....
.....San Francisco, Calif.

Enrollment Summary
1948–1949

Graduate Students		53
College of Arts and Science		
Seniors	128	
Juniors	175	
Sophomores	333	
Freshmen	616	
Specials	55	
		1307
College of Engineering		
Mackay School of Mines—		
Seniors	15	
Juniors	37	
Sophomores	32	
Freshmen	67	
Specials	3	
		154
School of Civil Engineering—		
Seniors	7	
Juniors	18	
Sophomores	25	
Freshmen	64	
		114
School of Electrical Engineering—		
Seniors	8	
Juniors	29	
Sophomores	29	
Freshmen	57	
Specials	4	
		127
School of Mechanical Engineering—		
Seniors	11	
Juniors	14	
Sophomores	22	
Freshmen	50	
		97
College of Agriculture		
School of Agriculture—		
Seniors	2	
Juniors	10	
Sophomores	10	
Freshmen	48	
Specials	5	
		75
Department of Home Economics—		
Seniors	3	
Juniors	5	
Sophomores	12	
Freshmen	22	
Specials	2	
		44
Total University		1974
Enrollment of men	1445	
Enrollment of women	526	
Total Summer School, 1948		1051
		3022
Less names counted twice		675
Grand total enrollment		2347

General Index

GENERAL INDEX*

*Figures at end of lines refer to pages.

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